State medicine and the state of medicine in Tokugawa Japan: *Kōkei saikyūhō* (1791), an emergency handbook initiated by the Bakufu

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Preface

This dissertation is the result of my own work and includes nothing which is the outcome of work done in collaboration except where specifically indicated in the text

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Introduction

By the end of the eighteenth century, early modern Japan had a flourishing medical market that had produced a large number of all kinds of medical manuals and health books. Within this context, an emergency handbook compiled for the general public under the guidance of the Bakufu suddenly appeared. The book is called *Kōkei saikyūhō* 広恵済急方 or "Measures for immediate help for the benefit of all", and had been written by Taki Motonori 多紀元徳 (1732-1801), Bakufu physician and director of the *Igakkan* 医学館, the Bakufu's medical academy, at the time of its publication in 1791. By means of this manual the initiator of the project, Tokugawa Ieharu 徳川家治 (1737-1786), aimed at providing health care for the populace by imparting medical knowledge in the name of 'benevolent governance' (*jinsei* 仁政). What prompted the government to launch a self-help book despite the abundance of medical literature available on the book market? What kind of medical knowledge did the Bakufu want to propagate by this publication? In this thesis I explore the motives behind this project, the ways in which medical knowledge was presented and the kinds of medicine and treatment that were recommended. Even though similar text projects based on the Confucian idea of *jinsei* were already undertaken prior to the publication of *Kōkei saikyūhō*, I argue that only by the comprehensive medical education realised in this manual the people were enabled to perform health care without any professional help. In order to achieve this goal, the Bakufu physician Taki Motonori as representative of the state not only combined scholarly medical knowledge with vernacular medicine in a manner that met the demands and needs of both expert and layman, but also put *Kōkei saikyūhō* on an entirely scientific footing, an approach not seen in other preceding manuals. It thus can be qualified as the first 'modern' home doctor manual that provides health care for the whole society.

The notion of *jinsei* as such is rather randomly discussed in Western scholarship. The only Western work so far that deals exclusively with this idea is the study of Hsu, in which he analyses the Confucian principle of virtue in governing a country, namely China, by

contrasting it to Western political thought of the nineteenth century.[1] It is in his book that we find a detailed explanation of this concept.[2] Yet this thesis does not deal with the question how the idea of *jinsei* in general was understood and implemented in the political system of the Tokugawa period. My purpose is to show if and how this concept was realised in the field of public health to present a contrast to the concept of health care in eighteenth and nineteenth-century Europe. There, the notion of providing public health was closely linked to the establishment of hospitals, hygienic reforms, and vaccination, as Porter points out in *Health, Civilisation and the State*.[3] Although we also find in Europe an increase in privately-published health manuals initiated by individual physicians, their publications were controversial among elite doctors; common to all of them, however, was the notion of reforming and educating commoners in their attitudes towards illness and health in the spirit of Enlightenment.[4]

This stands in contrast to China, where as early as the eleventh century medical texts became a tool for the state to perform health care in the name of the government, as Goldschmidt has shown in his study of the evolution of Chinese medicine.[5] At that time, the printing of medical texts did not only aim at the enhancement of medical relief but also played an important role as a political tool for the moral education of the people.[6] However, by the eighteenth and nineteenth centuries we no longer find any academic body, national or professional institution in China that could set the norms for medical learning by means of standardised teaching, as Leung shows in her study. Instead we find a booming medical book market, in which popular medical primers dominated.[7]

Japan adopted the sophisticated health system of China during what Sugimato and Swain called 'the first wave of the assimilation of continental culture' covering the period from the seventh to the ninth century, to which the oldest extant medical text produced in Japan, the *Ishinpō* 医心方 (984), gives testimony.[8] Written in classical Chinese and relying heavily on Chinese medical sources it reflects a detailed picture of medical theories and practices in early Japan. Yet besides some early governmental attempts in the Heian period to build a health care system by founding charity institutions – the *Seyaku'in* 施薬院 (730) initiated by Empress Kōmyō 光明皇后 may be cited here as an example – it was not until the

[1] Hsu, viii.
[2] *Ibid*., 105-26. See chapter one.
[3] Porter 1999, 1.
[4] Porter 1995, 445.
[5] Goldschmidt, 81.
[6] Hinrichs, 218.
[7] Leung, 131.
[8] On the first Chinese cultural wave regarding to medicine, see Sugimoto & Swain, 84-102.

Tokugawa period that we find governmental welfare attempts that resemble those initiatives in Song dynasty China. In total, the Bakufu projects in the realm of health care amount to eight medical works during the entire Tokugawa period. In this I follow Fukui, who established the following criteria for attributing the publication of medical books to the Bakufu: firstly, a work has to be ordered by the Bakufu to be qualified as a work sponsored by the Bakufu; secondly, the person authorised to compile it must be a daimyō or retainer in the service of the Bakufu; and finally, the Bakufu must have borne the expense of the editing and publishing.[9] The contents of these eight sponsored works differ considerably: besides a record of medicinal drugs, three translations of Western medical works on different topics and a handbook on prevention and treatment of cholera, we find two self-help books. The first one is called "Classified methods for general help" (*Fukyū ruihō* 普救類方, 1729), an outcome of the diverse health care activities of Tokugawa Yoshimune 徳川吉宗 (r. 1716-45), and will be discussed in more detail in the first three chapters, when working out the difference to *Kōkei saikyūhō*, the second self-help book.[10] The official explanation for *Kōkei saikyūhō*'s promotion was the argument that parts of the population had no access to health care, because they lived in remote areas or simply could not afford any kind of treatment: by the publication and dissemination of a medical handbook it was intended to fill this gap.[11] We can therefore assume that this manual realises for the first time the practical implementation of self-help by enabling all people the handling of emergency situations without the help of a doctor. I will therefore show that Taki Motonori, while providing primary health care, created a text that marked the beginning of a new era of medical manuals. What, then, is this book about?

***Kōkei saikyūhō*: an outline**

Originally completed in 1786, *Kōkei saikyūhō* was not published until 1791 in the course of reforms undertaken by the famous shogunate administrator Matsudaira Sadanobu 松平定信 (1759-1829). It consists of three volumes and reflects in the first place the state of medicine in late eighteenth-century Japan. The 272 double-pages in the original block printed edition

[9] Fukui 1983, 8.
[10] *Ibid*., 42. Besides *Kōkei saikūhō*, these works are "Records on collected drugs from all provinces" (Shoshū saiyaku ki 諸州採薬記, 1726) -which will be explained in more detail in the first chapter of the thesis -, "Surgery: new edition" (*Geka shinpen* 外科新編, 1845), translated from David van Gescher's (1736-1810) book *Hedendaagsche oeffenende Heelkunde*, "Brief observations on vaccination" (*Shutō ryakkan* 種痘略観, 1858), translated from Pompe van Meerdervoort's (1829-1908) *Korte beschouwing der pokziekte en hare wijzigingen*, "Prevention and treatment of cholera" (*Korera satsuyōhō* 古列刺撮要方, 1860), compiled by Matsumoto Ryōjun 松本良順 (1832-1907) and "Theories on the prevention of epidemics" (*Ekidoku yobōsetsu* 疫毒預防説, 1862), published by the Institute for the investigation of Western books. Of one book only the approximate title, year of publication, and author is known, which is "Treatments and medicines for emergency" (*Bikyū yakuhō* 備急薬方, 1733), compiled by Mochizuki San'ei et al; *ibid*.
[11] *Kōkei saikyūhō* I, preface Nakano Kiyofude, 2b.

cover around 86 main ailments or emergencies beginning with different types of sudden loss of consciousness, all kinds of injuries, food poisoning and other kinds of intoxication, childbirth and even resuscitation (e.g., how to revive a starving or drowned person). After a detailed and easy-to-understand description of the symptoms, *Kōkei saikyūhō* provides detailed instructions for preparing and applying herbal medicines and drugs. Numerous illustrations help the reader to understand the plants, animals and treatment methods mentioned. The handbook also informs the user where to obtain the medical remedies and goods needed for treatment. A broad range of medicines and other products at that time such as honey could be obtained at an average pharmacy, while many of the plants, foods and goods like ginger, radish, vinegar, salt, sugar, hair oil, ink, porcelain and tooth dye were presumably available at the homes of readers. In the few cases where the treatment included moxibustion, the work gives practical instructions for locating the acupuncture points to be used.

The work contains two prefaces written by Bakufu officials, in addition to an introduction composed by the author Taki Motonori, and a short summary of the contents at the end of the third volume prepared by the author's son Motoyasu 元簡 (1755-1810), who was also in charge of its revision. There is little known about the relationship between Motonori and those who wrote the prefaces - both of which were written in 1789 - or why they had been asked to contribute to the handbook. Sano Noriyuki 佐野義行 (dates unknown), one of the two authors, held the post of *okoshō* (御小姓) when he was asked to write it.[12] Nakano Kiyofude 中野清翰 (dates unknown), the author of the other preface, was entrusted with the task by Mishima Tajima 三嶋但馬 (dates unknown), who also transmitted the order to compile *Kōkei saikyūhō* to Motonori.[13]

Literature on the medical history of Japan in general and *Kōkei saikyūhō* in particular

Although *Kōkei saikyūhō* was an official publication, it has received only marginal attention from Western scholarship on the history of medicine in Japan. Apart from outlines on the history of medicine in Japan that cover the period up to the nineteenth century, such as Fujikawa's *Japanese Medicine* (1934) or Rosner's *Medizingeschichte Japans* (1989), the majority of research deals with Western influence on medicine in the Tokugawa period. Studies like that of Bowers in *Western Medical Pioneers* (1970), in which the activities of

[12] A post inside the Bakufu government that dealt with miscellaneous tasks for and around the Shogun; *NKD* 4, 855a.
[13] Mori, 294. He also provides a short biographical account of them. For Sano Noriyuki, see also *Kansei chōshū shokafu* 5, kan 850, 448.

Western physicians in Japan such as Siebold and Pompe are depicted, or of Goodman in *The Dutch Experience* (1986) and of Beukers in *Red-hair Medicine* (1991), all analyse the Western impact on medicine in Japan. Similarly, Lukacs (2008), and Macé (1997, 1998) focus on the transmission and translation of a famous Western work on anatomy portraying its protagonists and analysing how new medical terms entered Japanese medical vocabulary at that time. Similarly Nakamura argues that the study of Western medicine in Japan was a dynamic activity that brought together doctors in efforts to effect social change, which she exemplifies by investigating the life and works of Nakano Chōei and Takahashi Keisaku in *Practical Pursuits* (2005).[14]

We find medicine as a part of the treatment of information transfer in Sugimoto and Swain's *Science and Culture in Traditional Japan* (1978), in which they discuss the influence of Chinese medical thought and science in Japan from the beginnings until the end of the Tokugawa period. Numerous other studies deal with specific aspects of medicine, such as the studies of Sugiyama (2004) and Oberländer (1986, 2003) on Japanese *kanpō* medicine in the nineteenth century that deal with the modernisation movement that affected traditional medicine. In *Epidemics and Mortality in Early Modern Japan* (1983), Jannetta claims that the Japanese experience with epidemic diseases was different from that of Europe by demonstrating the absence of diseases that were common elsewhere. Her sequel, *The Vaccinators,* develops on the same subject and examines the reasons for the failure to export cowpox virus to Japan before its 'opening'.[15] Other works address specific issues such as body perceptions in literature of the East and West, which is the subject of a collection of essays *The Imagination of the Body and the History of Bodily Experience* (2001) compiled by Kuriyama. There are also studies that approach medicine from the viewpoint of religion, where it becomes an important source of income for temples, as Williams shows in his study on *The Other Side of Zen* (2005), or in form of textual examination of incantations undertaken by Rotermund in *Majinai Uta* (1975), where he analyses healing texts from the seventeenth to the twentieth century.[16] Yet so far there have been neither studies to date in Western languages of Japanese vernacular medical texts or popular medical writings nor any studies on the Bakufu as a provider of health care in the Tokugawa period.

When it comes to Japanese literature on the history of medicine, the works of the pioneer of medical history in Japan, Fujikawa Yū, are particularly worth emphasising. In *Nihon igakushi* 日本医学史 (1941) as well as in *Nihon no shippeishi* 日本疾病史 (1969) he

[14] Nakamura Gardner, 1.
[15] Jannetta 1987, 15; *ibid*. 2007, xvi.
[16] Williams, 86.

provides a summary of all important events, medical trends and diseases in Japan's medical past. Instead of describing the lives, works and theories of famous doctors as Fujikawa did, other authors approach the topic by relying upon literary documents such as the diaries of famous historical figures or historical sources to retell Japanese history through disease, as Hattori did in *Edo jidai no igakushi* 江戸時代医学史の研究 (1978) and Sakai in *Yamai ga kataru nihonshi* 病が語る日本史 (2008). The series *Meijizen nihon igakushi* 明治前日本医学史 (1955-64) is also notable; it chooses a biomedical perspective to investigate the history of medicine before the second half of the nineteenth century by dividing it into sub disciplines such as ophthalmology, gynaecology or forensic medicine.

In the Tokugawa period (1600-1868) medical institutions become increasingly important as places of education and medical experiences, and their transformation process from pre-modern research centres into medical institutions for higher education is the subject of many investigations such as the study *Tōkyō daigaku igakubu hyakunenshi* 東京大学医学部百年史 (1967) on the history of the medical department of the University of Tōkyō. Shinmura's work *Kodai iryō kanninsei no kenkyū* 古代医療官人制の研究 (1983, 2005), on the other hand, deals with the beginnings of Japan's first medical bureaucratic body and its administration in the eighth century. The same author also provides a social history of medicine from the eighth to the sixteenth centuries in *Nihon iryō shakaishi no kenkyū* 日本医療社会史の研究 (1985), in which he not only studies the first public institutions as providers of health care for the public but also draws on the spread of medical books and medicinal drugs. Studies on the health care system in Tokugawa period, however, are scanty. Although focusing on medicine from the Meiji period (1868-1912) onwards, the last two volumes of the 25-volume history of Japanese science *Nihon kagaku gijutsushi taikei* 日本科学技術史体系 give a short summary of the medical system of the preceding Tokugawa period by emphasising the role of the Bakufu physician family Taki, and the initiatives of other domain lords as forerunners in the provision of health care.[17] Most authors such as Sugaya in *Nihon iryō seidoshi* 日本医療制度史 (1976), however, concentrate on the development of the welfare system in Japan beginning with the Meiji period.

Research on Chinese and Japanese *materia medica* is generally well documented. In particular, the work *Honzō gaisetsu* 本草概説 (1977) by Okanishi, which gives an outline of Chinese pharmacological works that became significant in Japan, and the works of Shimizu, Okanishi and others in *Nihon yakugakushi* 日本薬学史 (1949), which trace the transmission

[17] Nihon kagakushi gakkai, in *Nihon kagaku gijutsushi taikei* 24, 11.

and influence of Chinese and Western *materia medica* in pre-modern Japan, are worth mentioning. A cultural approach to the medical landscape of Tokugawa Japan is taken by Soda in his *Nihon no meiyaku* 日本の名薬 (1981) where he deals with the commercialisation of medicine in that period. Based on the Deshima *dagregisters*, official diaries in which the events of the day were recorded, Yamawaki analyses the changes in the demand of imported medicinal drugs from China and the West by focusing on the eighteenth century in his study *Kinsei nihon no iyaku bunka* 近世日本の医薬文化 (1995).

Japanese and Western literature on *Kōkei saikyūhō* itself has so far been minimal. There is a short comment in Rosner's *Medizingeschichte Japans*, in which he states that its methods of reanimation originated in Japan, and in Kornicki (2001), where the work is mentioned in the context of publishing.[18] Also Mestler, a physician and collector of old Japanese medical works, refers to it in the context of a prominent acupuncture point in his *Galaxy of Old Japanese Medical Books* (1954). Japanese authors stress the importance of the work as a medical encyclopaedia for the common people using vernacular medicine along with Chinese formulas, as Ujiie does in *Edo no yamai* 江戸の病 (2009), or reproduce some pages to illustrate its significance as a forerunner of the medical home doctors of today, as Yoshioka does in *Edo no kigusuriya* 江戸の生薬屋 (1994).[19] Nevertheless, none of them provide a substantial analysis of the work. Most authors do not go beyond cursory comments. Fujikawa, for example, refers to it only in the context of rat bites in *Nihon igakushi kōyō* 日本医学史綱要 (1974), and Hattori does not mention it at all in his *Edo jidai igakushi no kenkyū* 江戸時代医学史の研究 (1978), although he has delved into the history of the Taki family, the authors of *Kōkei saikyūhō*, and the foundation and function of the *Igakkan*. Yamazaki, in *Meijizen nihon igakushi* 明治前日本医学史 (1978), cites *Kōkei saikyūhō* as an example of how books based on *kanpō* or Chinese-style medicine are related to forensic medicine.[20] Apart from Fukui (1983) and the 'Commentaries' in Asami and Yasuda, the only work in which *Kōkei saikyūhō* is given more attention is Tsukamoto's *Tokai to inaka* 都会と田舎 (1991). Besides Tsukamoto I have found no monographs, articles, or any secondary literature of substance, even though the above-mentioned authors stress the significance of the Bakufu's initiative to publish a self-help book for the people.

By and large the literature on the history of medicine in Japan, whether in Japanese or in Western languages, pays little attention to *Kōkei saikyūhō* or the provision of health-care

[18] Rosner, 101; Kornicki, 152.
[19] Yoshioka, 37-8; Ujiie, 150-54.
[20] *Meijizen nihon igakushi* 5, 231-2.

for the populace in general, and tends to focus upon Western influences, scientific developments, notable individuals and medical institutions instead. The detailed analysis of the book in this thesis intends to address this gap by investigating its motives, sources and therapies to examine its suitability as a text on primary health care.

Jinsei in Japanese scholarship

Similar observations can be made regarding scholarship on *jinsei* as a general concept in the political history of Japan, and its social importance in the establishment of a health care system. There are numerous studies in the intellectual history of Japan by Japanese scholars starting with Maruyama and others who discuss the issue in a broader sense without explicitly referring to benevolent government but analyse the Confucian impact upon politics as such.[21] There are also many investigations into political thinkers or Confucian philosophers such as Ogyū Sorai 荻生徂徠 (1666-1728) debating the right way of governance, or studies that address the formation of Tokugawa ideology.[22] Also worth mentioning are works that focus on the institutional history of the Tokugawa period, in which the dual structure of the political system and its accompanying tensions are discussed.[23] The limited scholarship that deals with the idea of *jinsei* and its impact on the Tokugawa health care system broaches this topic from two different perspectives.

Watanabe's basic assumption articulated in *A History of Japanese Political Thought* is that the rulers of the Tokugawa period swung between the imported philosophy of benevolent and virtuous government on one hand, and a more 'indigenous' notion of military rule that accorded more with the instincts of the warrior class on the other.[24] For him, the big obstacle in ruling a country under the name of *jinsei* lies in the warrior's mindset that was focused on battle and gradually had to be altered to fit into the new setting of the Tokugawa peace. In *Kinsei nihon shakai to sōgaku* he claims that the political philosophy of Confucianism, and especially its concepts of ruling the people by practising self-cultivation or ruling by virtue, was a concept that the samurai only heard of from afar. However, it was difficult to thoroughly negate the vague reverence towards the Way of the Sages. The problem was, Watanabe reasons, that the Confucian scholars had not established a theory of governance that

[21] For a general approach to Confucianism in Tokugawa Japan see also Wm. De Bary and Irene Bloom (eds), *Principle and Practicality. Essays in Neo-Confucianism and Practical Learning*, (New York: Columbia University Press, 1979).
[22] See for example *Ogyū Sorai's Discourse on Government (seidan)*, translated and annotated by Olof Lidin, (Wiesbaden: Harrassowitz Verlag, 1999); James McMullen's "Rulers or Fathers? A Casuistical Problem in Early Modern Japanese Thought", (*Past and Present. A Journal of Historical Studies* 116 (1987): 56-97, who investigates the thought of Hayashi Razan, Kumazawa Banzan and others; or Herman Ooms 1985.
[23] See for example John W. Hall's and Marius B. Jansen's (eds.) *Studies in the Institutional History of Early Modern Japan*, (Princeton, N.J.: Princeton University Press, 1968).
[24] Watanabe 2012, 96.

was rooted in practical business but relied on customs and experience. Therefore, the outcome was a kind of amalgamated Confucianism that joined together concepts such as 'compassion' (*jihi* 慈悲) or 'way of heaven' (*tendō* 天道). While Confucianism and the theory of the Chu Hsi school was accepted as theory, they drew upon a reality that was difficult to realise. [25] As successful realisations of *jinsei*, Watanabe briefly instances the health care initiatives of Tokugawa Mitsukuni 徳川光圀 (1628-1700) who ordered the publication of "Effective Medicines for Saving the People" (*Kyūmin myōyaku*, 1691), a self-help manual for the common people, the *Edicts for the Compassion of Living Things* 生類憐みの令 (1687) of Tokugawa Tsunayoshi 徳川綱吉 (r. 1680-1709), and the various public health care projects undertaken by Tokugawa Yoshimune.[26]

Tsukamoto comes to another conclusion. He approaches this topic from an anthropological perspective when he investigates in *Tokai to inaka* the fundamental tension between the new and old, or in other words, the tension that arises when tradition or custom is confronted with the novel be it invented, created or imported. In this process, which he claims to be a recurring theme in history, the new is perceived and adopted as something good regardless of time or society. This fundamental principle however only applies to societies in which there is a ruler or sovereign. He illustrates this by giving some examples from Japan's present and Europe's Middle Ages with its highly developed trading centres or places, in which resources, labour, and information were gathered. Such centres or capitals attract the new and spread it to the rural areas, and this leads to a basic conflict or tension in rural regions between the incoming new and the pre-existing old. This dynamic process, Tsukamoto continues, can be perceived within the state between big cities and countryside, on state-level between the capital and rural areas but also on supra-state-level between China and the West as centres of innovation or attraction for everything new and Japan as periphery. Japan thus becomes a place in which '*chihō*' or countryside culture takes place, whereas China and the West are identified as '*bunmei*' or civilised culture.[27] Within this framework Tsukamoto places *jinsei*. He likewise examines the diverse projects of the above mentioned initiators but includes the publication of *Kōkei saikyūhō*. He claims that the concept of *jinsei* ultimately failed to produce productive effects by showing little respect for the medical knowledge of the common people; a knowledge that, according to him, is gained from daily experience. Moreover, he sees in the publication of medical books a growing dependence on

[25] Watanabe 1985, 71-3.
[26] *Ibid*., 97.
[27] Tsukamoto 1991, 6-7.

written culture that gradually replaces orally transmitted traditional wisdom.[28] In *Kōkei saikyūhō*, however, he sees this 'indigenous' knowledge still preserved, which he tries to confirm by a case study.[29]

In my dissertation I intend to tackle this topic from a medical-historical perspective by applying - as Watanabe and Tsukamoto have done- the notion of *jinsei* as an underlying ideological concept in public welfare, in the name of which several projects were launched. Within this framework, *Kōkei saikyūhō* will serve as a case study to show how the idea of benevolent governance with regard to health care was put into practice, that is, to find out if and how this manual was able to meet the needs of the people. To assess the motivation of the initiators and reception by the readership, I will draw on historical sources such as records and accounts of historical events, such as the supplements of the *Tokugawa jikki* 徳川実紀, the official record of the Tokugawa House. The comparison with "Extraordinary medicines for saving the people" (*Kyūmin myōyaku*, 1693), *Fukyū ruihō* and other medical sources will further help to place *Kōkei saikyūhō* in its historical setting and reveal its educational character. The analysis of its contents will illuminate the different medical and botanical influences from abroad and – if Tsukamoto's assumption is true – unfold 'indigenous' knowledge on medicine, or corroborate Porter's suggestion, which he makes for the popular medical manuals of eighteenth century Europe, that they contain a simplified version of orthodox medicine – which would be in this case medicine derived from classical Chinese medical texts. Above all, the analysis of the contents shall illuminate the educational character of the book.

This thesis is structured in the following way. Chapter One deals with the general idea of *jinsei* as the basic structure of public health in Tokugawa Japan and introduces the initiatives of the respective governments to launch these projects. In chapter Two the medical sources upon which *Kōkei saikyūhō* and *Fukyū ruihō* are based and their impact on the medical landscape of pre-modern Japan will be examined. Chapter Three analyses the contents of *Kōkei saikyūhō* and compares the ailments it contains with *Fukyū ruihō* in order to work out the differences of the respective manuals and position *Kōkei saikūhō* within the historical context. In the following chapters Four and Five I switch from the comparative perspective to the single study of *Kōkei saikūhō* by focussing on its instructive and practical aspects. Chapter Four therefore deals with the general acquisition of botanical knowledge and its transmission to the reader. It asks about the medicines that Motonori recommends in *Kōkei*

[28] *Ibid*., 214-5.
[29] *Ibid*., 230-1.

saikyūhō, their availability and affordability, and the role the pharmacies played in providing medicines for self-help. Chapter Five covers the relationship between standard medicine propagated by the physician and popular medical knowledge applied by the amateur, with the aim to reveal the tension between these two poles. It investigates how this interplay is reflected in *Kōkei saikyūhō* by analysing the medical knowledge Motonori offers the reader and the skills the user has to acquire to successfully perform self-help. In chapter Six, I will bring together the different threads that enable the practicable implementation of public welfare on local and national level, and discuss the impact of other texts and means in acquiring medical knowledge to identify the role *Kōkei saikyūhō* played in these *jinsei* text-initiatives.

Chapter One: The notion of *jinsei* and its implementation with regard to health care

Ooms aptly remarks that three names dominate the political history of the Bakufu in the eighteenth century: Tokugawa Yoshimune, eighth Shōgun and author of the Kyōhō reforms (1716-1735); the tenth Shōgun Tokugawa Ieharu together with his chief favourite Tanuma Okitsugu 田沼意次 (1719-88), who gave his name to a period of weak shōgunal rule and official corruption; and the regent Matsudaira Sadanobu, the initiator of the Kansei reforms (1787-1793) and Yoshimune's grandson.[1] These three personalities also stand as representatives for the welfare initiatives of the Bakufu who shaped the medical history of the eighteenth century in Japan: Shōgun Yoshimune for launching *Fukyū ruihō* and the shōgun Ieharu and Sadanobu (for the shōgun Ienari who was still a minor) for the publication of *Kōkei saikyūhō*. The publication of both books occurred at a time when the Tokugawa government was carrying out reforms to reorganise the economy and strengthen the control over society. The reforms under which *Fukyū ruihō* was disseminated were known as the Kyōhō reforms, and the publication of *Kōkei saikyūhō* fell under the Kansei reforms. The idea for the second handbook, though, was born in the times of Ieharu and his chief favourite, Tanuma Okitsugu. In this chapter I will therefore explore the historical setting in which these projects were initiated in order to understand the motivation behind these publications. Before doing so, the notion of 'benevolent governance' (Ch. *ren zheng*, Jp. *jinsei*) as an ideological and political framework, and the associated Bakufu publications as its manifestation will be examined in more detail.

1. What is 'benevolent governance'?

It is in the *Analects* (*Lunyu* 論語) of Confucius that the concept of benevolent governance is mentioned for the first time, even though not yet as the compound term but in form of a single character. The term *ren* 仁 itself is the key virtue in the *Analects* having a variety of translations from perfect virtue, kindness and compassion to goodness and benevolence depending on the context in which it is used.[2] Dawson stresses the point that the term applies more to the practical manifestations of being humane than to the mere indication of the psychology of the human being.[3] In this context *ren* is rendered as 'benevolence' to

[1] Ooms 1975, 4.
[2] Dawson, xxi.
[3] *Ibid*.

distinguish it from 'compassion', a term in the Japanese context widely used to describe the quality to be found in a warrior.

We find benevolence in connection with governance in the *Yao Yueh* 堯曰 section of the *Analects*. According to Wilhelm and Legge, the aim of this book is to rank Confucius amongst the three rulers of exceptional virtues "throwing light on the excellence of the ordinances of Heaven, and the transforming power of government".[4]

When Confucius was asked "in what way should *a person in authority* act in order that he may conduct government properly" he answered "let him honour the five excellent (chin. *mei* 美), and banish away the four bad, things."[5] That is, "when the person in authority is beneficent without great expenditure (*chin. bu fei* 不費); when he lays tasks *on the people* without their repining; when he *pursues what he* desires without being covetous; when he maintains a dignified ease without being proud; when he is majestic without being fierce."[6] What does Confucius mean by this? He explains these principles or qualities a sovereign should possess in more detail.

The first principle is "when *the person in authority* makes more beneficial (chin. *li* 利) to the people the things from which they naturally derive benefit (利), - is not this being beneficent without great expenditure?"[7] Hsu interprets the character 利 as 'resources of the country' by saying to benefit the people without wasting the resources of the country, which means that the government should work for the greatest welfare of the people at the greatest economy for the nation. Confucius, therefore, would allow the state to undertake any sort of activity as long as such activity increases the actual welfare of the people, and so long as it does not impose upon the people too much financial burden. Hsu argues that especially the character 利, translated as 'naturally beneficial', is very significant as it implies such conditions as natural resources, public opinion, government efficiency etc.[8]

The second principle of benevolent government, 'when the government demands labour from the people in proper manner and for their own good, who will repine?', means for Hsu that the system of taxation should be so instituted that the people find no cause for

[4] Legge, 350; Wilhelm, 191.
[5] Analects, bk. 20, ch. 2, sec. 1; translated by Legge, 352. Wilhelm translates this passage as "venerate the five good (qualities) and remove the four bad ones [Achte die fünf (Eigenschaften) hoch und beseitige die vier üblen]"; Wilhelm, 192.
[6] Legge, 352; italics by the author.
[7] *Ibid*., 352; Wilhelm translates this sentence similarly: "Wenn man die (natürlichen Quellen) des Reichtums der Untertanen benützt, um sie zu bereichern: ist das denn nicht Gnade ohne Aufwand? [when one uses the natural sources of the richness of the people for their gain, is not this beneficent without expenditure?]", Wilhelm, 193.
[8] Hsu, 106-7.

complaint.[9] He reasons that the autocratic government at the time of Confucius often demanded the labour of the people during the busy seasons of farming, and so the people repined, and since Confucius regards the government as the parent and the teacher of the people, he gives the responsibility for wise taxation to the government.[10]

The third principle of benevolent government deals with greediness: "when his desires are set on benevolent *government* (仁), and he secures it, who will accuse him of covetousness (貪)?"[11] Wilhelm follows the same interpretation but translates the character 仁 as 'morality' (Sittlichkeit) in this case, and Hsu also follows his translation by paraphrasing the original as "make it your aim to wish for moral well-being and you will never be liable to be covetous".[12] For Hsu, this means that there is no limitation to the sphere of government activity as long as it is exercised in accordance with the principle of love. He identifies coveting with profiteering by referring to another passage of the analects, in which Confucius clearly condemns governmental profiteering as it causes social unrest and political discontent.[13]

The subject of the fourth principle for a benevolent ruler Hsu paraphrases as respect.[14] Confucius says, "whether he has to do with many people or few, or with things great or small, he does not dare to indicate any disrespect; - is not this to maintain a dignified ease without any pride?"[15] Hsu points out that in this passage Confucius urges the importance of respecting people. He refers to a passage in which Confucius says that the affairs of the people should be attended to as if partaking in a great religious sacrifice, and stresses that Confucius also remarks that when the rulers treat the people reverently the people will be loyal and respectful to the nation.[16]

Reverence, not fear, is featured as the fifth principle. "He adjusts his clothes and cap, and throws a dignity into his looks, so that, thus dignified, he is looked at with awe; - is not this to be majestic without being fierce?"[17] According to Hsu, this means that the government should be revered, but not feared. In other words, its order should be respected and laws

[9] In this case, I rely on Hsu's translation; *ibid*. Legge translated it as 'When he chooses the labours which are proper, and makes them labour on them, who will repine?'; Legge, 353. Wilhelm's translation is even more elaborate: „Wenn man vorsichtig auswählt, (womit man das Volk gerechterweise) bemühen darf, und es dann (entsprechend) bemüht: wer wird da murren?" [When one carefully chooses (by rightfully labouring the people), and they then labour, who will repine?]; Wilhelm, 193.
[10] Hsu, 107.
[11] Legge, *loc. cit.*
[12] Wilhem, *loc. cit.*; Hsu, *loc. cit*.
[13] *Ibid*; Analects, bk. 4, ch. 12.
[14] Hsu, *loc. cit.*
[15] Legge, *loc. cit.* Wilhelm's translation is in accord with that one of Legge; Wilhem, *loc. cit*.
[16] Hsu, *loc. cit.*; Analects, bk. 12, ch. 2; bk. 2, ch. 20.
[17] Legge, *loc. cit.*

enforced due to the moral influence of the rulers, but not by severe punishment or drastic administration. The personal example of goodness on the part of the ruler is essential.[18] Therefore "the ruler has only to watch over every minute detail connected with his daily life, not only of conduct and bearing, but even in minor details of dress, so as to produce an effect upon the public mind which, without these influences, could only have been produced by fear".[19]

Hsu summarises Confucius' ideas of benevolent government as follows: government should be based upon virtue and operate for the benefit of the people in the same way as parents affectionately care for their children. A good government is not defined by management which makes the nation powerful, wealthy, and supreme in arms, while holding other peoples in subjugation. Nor is it the government which is efficient, feared, and obeyed by the people but loves them and is loved by them, and whose politics are based upon benevolence and righteousness (Ch. *yi* 義).[20]

The compound *ren zheng* appears for the first time in the *Book of Mencius* (*Mengzi* 孟子) in which another aspect of benevolent governance is reflected. In the *Liang Hui Wang* 梁惠王 section of Mencius links the principles of benevolent government to actual politics. The king of Liang complained about having lost one son and territory in the war with stronger states than his, and asked for advice on how to regain the strength of his country and return to the glory of his ancestors. Mencius' following answer draws on Legge's translation:

> Mencius replied, 'With a territory which is only a hundred *li* square, it is possible to attain to the royal dignity. If Your Majesty will indeed dispense a benevolent government (仁政) to the people, being sparing in the use of punishments and fines, and making the taxes and levies light, so causing that the fields shall be ploughed deep, and the weeding of them be carefully attended to, and that the strong-bodied, during their days of leisure, shall cultivate their filial piety, fraternal respectfulness, sincerity, and truthfulness, serving thereby, at home, their fathers and elder brothers, and, abroad, their elders and superiors, you will then have a people who can be employed, with sticks which they have prepared, to oppose the strong mail and sharp weapons of the troops of Qin and Chu. The rulers of those States rob their people of their time, so that they cannot plough and weed their fields, in order to support their parents. Their parents suffer from cold and hunger. Brothers, wives, and children are separated and scattered abroad. Those rulers, as it were, drive their people into pit-falls, or drown them. Your Majesty will go to punish them. In such a case, who will

[18] Hsu, *loc. cit.*
[19] *Ibid*., 109, Analects, bk. 3, ch. 21, translation based on Hsu; for Legge's translation, see Legge, 162.
[20] Hsu, 105-6; according to him, *ren* and *yi* often go together and translated as 'benevolence and righteousness' or 'humanity and justice', but their meanings are much broader and have no English equivalents; Hsu, 106.

> oppose your Majesty? In accordance with this is the saying, "The benevolent has no enemy." I beg your Majesty not to doubt what I say.'[21]

Mencius here shows the implications of bad government, which means that in the case of war the benevolent ruler will even have the opponent's people at his side if they were treated badly by their sovereign. These passages give an overall idea of what should be understood by *ren zheng* on the whole and its relationship to other desirable virtues such as filial piety or righteousness. In the following, the focus will turn to the newly established Tokugawa era and the awareness and development of the concept of *jinsei* among the ruling class.

2. *Jinsei* in Japan

> How strange, when I talk things over with a government person from time to time, expounding on 'benevolence' (*jin* 仁) evokes an unpleasant feeling inside me but expounding on 'compassion' (*jihi* 慈悲) does not.[22]

These words uttered by Hoshina Masayuki 保科正之 (1611-1673), the most influential figure of the Matsudaira house of Aizu and admirer of Song Confucianism, resume the ambiguous attitude of the ruling class towards 'benevolence'.[23] Watanabe uses this quotation to point out that it was not *jin* but *jihi* with which the warrior identifies himself. In fact, *jihi* was considered as an important virtue that was essential to a military commander (*bushō* 武将), as it is clear from the *Kōyō gunkan* 甲陽軍鑑, a record of the military exploits of the Takeda family.[24] More than being a mere virtue it reflects the attitude of the warriors of the preceding period of civil wars (*sengoku jidai* 戦国時代), a time of military conflict that lasted around one hundred years. Watanabe stresses the point that during this time of conflict it was not their intent to fight for the common people and farmers, nor for 'a beneficial government and peaceful people' (*jinsei anmin* 仁政安民) but to win battles, and the role of the townspeople and peasants was to supply them with the necessities for battle.[25] In order to support his argument he cites the above mentioned *Kōyō gunkan*, in which Takeda Shingen 武田 信玄 (1521-1573) said:

> It is good fortune for this country and its military leaders to have at their service the merchants whose path is to trade and the peasants whose path is to cultivate. This in particular applies to things one needs. Since there is war between different parts of the country and although it is not possible to buy things as one likes,

[21] Mencius, bk. 1, part 1, ch. 5, sect. 2-3, translated by Legge, 134-5; see also Wilhelm, 46.
[22] *Hanitsu reijin genkōroku* 土津霊神言行録, in *Zokuzoku gunsho ruijū* 3 (1907), 278; Watanabe 1985, 66.
[23] On Hoshina Masayuki, see *KD* 12, 718-719.
[24] A military treatise on battle tactics and government practices focussing on the personalities of Takeda Shingen and his son Takeda Katsuyori 武田勝頼 (1546-1582), *KD* 5, 543; see also Kodansha Encyclopedia of Japan 4, 299.
[25] Watanabe 1985, 67.

> the townsmen carry their goods to the capital or southern and northern territories at the risk of their own lives. Moreover, the peasants cultivate the land and make it wealthy and noble, and therewith support the military leaders and their people. They take up bow and arrow to win a battle, attack other provinces and by winning gain a good reputation. The basis for this is provided by the people who are skilfully at ploughing and producing.[26]

To Watanabe this passage shows that the awareness of governance in the age of civil wars was different to the notion of a Confucius-like democracy that regarded benevolent governance, which is entrusted by heaven, as the raison d'être of a sovereign.[27] Yet the quoted passage bears a certain resemblance to the above mentioned advice of Mencius given to the king of Liang. Watanabe gives further examples of warriors and thinkers who felt the tension between the ethos of a warrior, his loyalty to his lord, and his practicing of the Confucian Way.[28]

In line with the reasoning of Watanabe, Tsukamoto further argues that the perception of governance among the ruling class changed with the policies of Tsunayoshi. Widely recognised as bad governance, Tsunayoshi's initiatives to save animals from harm and keep guard over cultivation as well as to protect infants and the sick became the duty of his government. In these initiatives that aimed at educating the people, in which protection of animals and filial piety (*kō* 孝) stood at its centre, he wanted to prevent the people from doing wrong.[29] Bodart-Bailey comes to a similar conclusion, when she remarks that in Tsunayoshi's policies the terms *jihi* and *jin* find frequent mention in connection with his laws punishing people for mistreating animals. She also argues that for Ōgyū Sorai the key to peacetime policies is *jinsei*, and he emphasises and explains this term in some detail in the first letter of *Master Sorai's Responsal's* (*Sorai sensei tōmonsho* 答問書, 1727). Therein, Sorai comments that the term *jin* is generally glossed as compassion (*jihi*), but for him the best definition is "father and mother of the people".[30] This means that it is the master of the household who should look after all its members, and this not only applies to the peasants' household but even more to warriors and lords. They equally should see their households and domainal populations as a family whose members should not be abandoned or cut off.[31] As one manifestation of this principle one can cite the famous epistle of Uesugi Harunori 上杉治憲

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[26] *Kōyō gunkan*, second book (revised and commented by Isogai Masayoshi 磯貝正義 et.al, Jinbutsu Ōraisha, 1965), 96-7; in Watanabe 1985, 68.
[27] *Ibid*.
[28] These were for instance Nakae Tōju 中江藤樹 (1608-1648), Yamaga Sokō 山鹿素行 (1622-1685), or Minagawa Kien 皆川淇園 (1734-1807); Watanabe 2013, 89-91.
[29] Tsukamoto 1991, 210.
[30] Bodart-Bailey, 245. See also Yamashita, 35-6.
[31] Yamashita, 37.

(1751-1822) of Yonezawa domain written in 1785 for his descendants, in which he advises on how to rule their domain:

> The state is passed down from ancestors to descendants, and should not be managed as our private or personal (*shi* 私) affairs.
> The people belong to the state, and should not be treated as our private affairs.
> It is the sovereign (*kun* 君) who stands up for the state and its people, and not the state and its people who stand for the sovereign.[32]

Indeed, the management of his domain especially during the Temmei famine years (1782-7) stood as a model for successful administration and personal commitment in the name of benevolent governance.[33] This also includes Uesugi's initiatives to promote the economy of the domain and the distribution of a booklet to prevent famine, a topic that will be discussed further in the last chapter of this dissertation together with the general role of the domains regarding the promotion of welfare by disseminating manuals. In the following we will turn our focus to the Bakufu endeavours in the framework of what appears to be benevolent governance through the publication and distribution of texts.

3. Text-initiatives in the Tokugawa period

Works that were published by the Edo Bakufu were called *kanpan* (官版 or 官板), which means that these are government publications or published by an official agency. In China, books published by the central government office and regional offices had similar names such as *guan ke ben* 官刻本, *guan ben* 官本 or *guan ban* 官版. They were applied to distinguish official publications from private individual publications or prints done by privately owned bookstores (*fang ke ben* 坊刻本). For the publications of the Ming dynasty, which had a great impact on the publishing world in the early Tokugawa period, the term *guan ban* was generally used; that is presumably why the term *kanpan* became established in Japan.[34] For Fukui, it is evident that the publishing activities of the Edo Bakufu were influenced by China and Korea. In China, documents show that there are official publications from as early as the Han dynasty, and these publications are existent from the Song period onwards published by the central and regional government offices. The wood blocks were stored in the respective offices, and used for several hundred years while adding supplemental blocks.[35] Imperial

[32] Naramoto Tatsuya, 228; Watanabe 1985, 76; see also translation Ravena, 1.
[33] On Uesugi Harunori, see Aoki Yokoyama, *Uesugi Yōzan no subete* 上杉鷹山のすべて (Jinbutsu Ōraisha, 1989).
[34] Fukui 1985, 3.
[35] *Ibid*., 6. On the development of the prints in China, see Hinrichs, 217-238.

imprints also played an important role in moral education and the promotion of health care.[36] The same trend can be seen in Korea: as early as the Goryeo dynasty (918-1392) official publications were printed by using a metallic type. In 1392 the court established a Printing Office (*Seo jeok weon* 書籍院) and from the Joseon dynasty onwards official printing was actively done.[37]

Compared to these activities the beginning of Japanese official publications was extremely late: it did not start until the end of the sixteenth century with the imperial editions of Emperor Go-Yōzei 後陽成 (r. 1587-1611) and Emperor Go-Mizu-no-o 後水尾 (r. 1611-29), and the publications of Tokugawa Ieyasu 徳川家康 (r. 1603-5) known as Fushimi-prints named after the place south of Kyoto where the printing took place. Prior to the sixteenth century Buddhist scriptures and sutras were actively printed by temples, but there was little Bakufu publishing activity.[38] Fukui emphasises that, in this respect, the publishing initiatives of the Tokugawa Bakufu are of historical importance.[39] Printing activities that deserve the name *kanpan* began in the seventeenth century, and lasted until the beginning of the Meiji period. These enterprises were not confined to the political and administrative centre of Edo but equally were undertaken in the domains.[40] Initially, the publishing activities of Tokugawa Ieyasu, Tokugawa Tsunayoshi and Yoshimune reflect their personal preferences and taste, but from the Kansei period onwards there can be perceived a tendency towards institutional publications depending on the purpose of the policies in the respective governmental institutions.[41]

The books published by the Bakufu can be divided into three groups. The first group consists of reprints of works from China. This corresponds to the largest number of imprints during the whole Tokugawa period, and also reflects the fact that Chinese studies were the current focus of scholarship at that time. Regarding the reprinting of Chinese works, the Bakufu put much efforts into the selection and correction of source texts to be reprinted, the adding of punctuations, the choice of paper, and bookbinding, which were all activities the scholars in the service of the Bakufu were engaged in. The second group comprises - especially towards the end of the Tokugawa period - the diffusion of Western studies, and

[36] On the process of producing and distributing official medical texts in Northern Song dynasty (960-1126), see Hinrichs, 217.
[37] Fukui, *loc. cit.*; see also Kornicki 2001, 128-9.
[38] Fukui 1985, 6; Chibbett, 79. Therein, the printing and publication of calendars play a special part as they are controlled by both Bakufu and imperial offices; see Leinss, "Japanische Lunisolarkalender der Jahre Jōkyō 2 (1685) bis Meiji 6 (1873)", *Japonica Humboldtiana* 10 (2006): 5-89.
[39] Fukui, *loc. cit.*
[40] *Ibid.*
[41] *Ibid.*, 7.

together with its development, the publication of language books and reprints of Western texts by the various institutions of the Bakufu to meet the demand for textbooks, reference manuals, dictionaries etc for the study of Western learning (*yōgaku* 洋学). The third group contains books, regardless of Chinese, Japanese or Western studies, that the Bakufu considered important to be published.[42] Looking at the publishing activities of the government from the perspective of the Bakufu's purpose, three essential features can be discerned: imprints that the Bakufu intended to use itself, imprints for broad dissemination among the people, and imprints that were a mixture between the two.[43]

Depending on the purpose two publication methods were used: the Bakufu created a workshop where the printing was done immediately, or the Bakufu printed the initial necessary number of prints, subsequently lent the woodblocks to publishers, and ordered them to sell the copies. The total number of books published by the Bakufu amounts to 300 including those works that are regarded as equivalent to official publications.[44] The largest share of 197 imprints is made up of books produced by the Shōheizaka Institute *(Shōheizaka gakumonjo* 昌平坂学問所), the governmental school from 1793 onwards, followed by thirty-five books on Western learning published at the Institute for the Investigation of Barbarian Books (*Bansho shirabesho* 藩書調所, later *Yōsho shirabesho* 洋書調所, and later *Kaiseisho* 開成所), and seventeen manuals printed at the Military Academy (*Rikugunsho* 陸軍所). The remaining ten books were published by other institutions such as the *Igakkan*.[45] Besides the above mentioned institutes and academies, other publishing places were the Office of the Nagasaki City Commissioner (*Nagasaki bugyōsho* 長崎奉行所), and the Observatory Officials (*Tenmonkata* 天文方).[46]

In the Kyōhō era, Tokugawa Yoshimune commissioned scholars to write and published their works; later, the woodblocks were given to the bookstores that sold the prints. That is why in that era most colophons of official published books contain the names of the bookstores. This practice was later continued by the Shōheizaka Institute and the School of Western Studies. They adopted the same practice by using the official printing blocks to print the necessary number of copies. The woodblocks were then borrowed by or given to a publisher who printed and sold the books. Yet it was not always the case that the official printing blocks at that time remained the property of the government, after the necessary

[42] *Ibid*.
[43] *Ibid*., 8.
[44] Such as *Kōkei saikūhō*.
[45] The Shōheizaka institute derived its name by the birthplace of Confucius, Changping 昌平, see also *KD* 7, 608.
[46] Fukui 1985, 8; Kornicki 2001, 145-6.

number of copies were printed, very often the blocks were given to the author or publisher. It sometimes happened, however, that official publications were confused with ordinary publications; to avoid misidentification, and to mark and display Bakufu publications on the title page, the terms *kanpan* or *kankoku* were added on the title page.[47] Indeed, Ogyū Sorai was critical of the fact that official publications around the Kyōhō era were virtually private productions of publishers and did not deserve the name *kanpan*.[48] Fukui further mentions that books from China that came to Japan around the first half of the seventeenth century labelled *kanban* were reprinted without removing the term. However, they were not official publications of the Ming dynasty but a commercial advertising tool of Ming booksellers. This led to confusion with the Bakufu's own publications, and Fukui assumes that a subsequent edict implemented in 1793 was a necessary second step to avoid misunderstanding.[49] However, the ruling of the edict was evidently ignored since many surviving copies with commercial colophons also carried the *kanpan* designation.[50]

Yet in the case of *Kōkei saikyūhō*, it was not the terms *kanpan* or *kankoku* but the term *kanjun* 官準 which was applied. Since the place of publication or ownership of the woodblocks was Taki Motonori's medical academy Seijukan 躋寿館, which at that time had not yet turned into the Bakufu's official medical institute, the *Igakkan*, a slightly different term was chosen. In fact, the term itself is not to be found in Japanese or Japanese-Chinese character dictionaries; a connection to the character *kan* 官, "official", is only found in the explanation *jun* in the sense of permission (kyoka suru 許可する, yurusu 許す), and often used as an equivalent of the character *jun* 准. The term *kanjun* 官准 in turn is an equivalent to kankyo 官許.[51] This different label explains why various scholars have come to different conclusions concerning the official character of *Kōkei saikyūhō*. For those focussing on the place of publication or ownership of the blocks, *Kōkei saikyūhō* was a private or semi-official book.[52] Other sources, by contrast, emphasise its official character. Since *Kōkei saikyūhō* was ordered by Ieharu, the publisher Matsuzawa Rōzen 松澤老泉 (1769-1822) listed it as official book (*kankoku no sho* 官刻の書), and Tsukamoto notes that the book was not directly

[47] Fukui 1985, 3.
[48] Kornicki 2001, 144.
[49] Fukui 1985, 5.
[50] Kornicki 2001, 145.
[51] Mo 7, 150, No. 17934, explanation 8; Mo 3, 967, No. 7107.170.
[52] Kornicki 2001, 152.

published by the Bakufu but with its consent (*junzuru* 準ずる), therefore it is an official publication.[53]

3.1 *Fukyū ruihō* and other initiatives of Tokugawa Yoshimune towards the enhancement of public health

For Minami, the first steps towards public health in Tokugawa Japan were taken by Yoshimune in his initiatives to help the needy and ill.[54] Apart from and prior to the publication of *Fukyū ruihō*, notable projects like the enhanced cultivation of vegetables and domestic drugs and the establishment of a hospital were implemented. Yoshimune regarded the medicinal drugs of China and Western countries as very effective, but since they were expensive and in short supply, it was not possible for ordinary people to acquire them easily. Therefore, he ordered the cultivation of those plants that suited the soil of the country, and sent out herb collectors such as Niwa Seihaku [Shōhaku] 丹羽正伯 (1691-1756), Noro Genjō 野呂元丈 (1694-1761)[55], Uemura Masakatsu 植村政勝 (1695-1777) and others in search of indigenous medicinal plants. This investigation resulted in a book called "Records on collected drugs from all provinces" (*Shoshū saiyakuki* 諸州採薬記, 1726). It comprises not only a survey of native plants and animals, but also a depiction of local customs and the geography of the various places visited; and it represents the first 'medical' book ordered and sponsored by the Bakufu.[56]

Since Bakufu officials had already been confronted with an increase in the number of outcasts and people living in dire poverty at the end of Genroku (1688-1704), relief measures in the form of temporary shelters in Edo had been adopted; and they had also realised that precautions against calamities such as famines should be taken. At the beginning of the Kyōhō era concrete steps to improve the situation were taken and one of these steps was the establishment of a dispensary, the Koishikawa Sanatorium or *Yōjōsho* 養生所.[57] According to Minami, the impetus for the subsequent creation of this official dispensary was a petition from the city-physician Ogawa Shōsen 小川笙船 (1672-1760). In a letter posted in a complaints box which was placed in front of the Supreme Court of the shōgunate (*Hyōjōsho* 評定所), Shōsen wrote that, "I would be very grateful and happy, if the shōgun gave the order for

[53] Matsuzawa, 182; Fukui 1985, 318; Tsukamoto 1991, 230.
[54] Minami, 297.
[55] He wrote "A Dutch's herbal translated into Japanese" (*Oranda honzō wake* 阿蘭陀本草和解) based on Dutch sources of early seventeenth European natural history. The book is regarded as Japan's first book on natural history of the West; *KD* 2, 946; see also Matsushima, 125-132.
[56] Yasuda, 1251; *KD* 46, 244, 291.
[57] Minami, 297.

establishing a dispensary. There are extremely poor ill people to be seen in the quarters of the town and for these countless miserable people such an institution would be a blessing".[58] This project is also described in the *Tokugawa Jikki*:

> When the poor and others in remote regions become ill, they cannot leave for a practitioner to get help, thus those who are meeting an untimely death are numerous. Since these sad incidences are occurring for a long time, a free dispensary is founded in Kyōhō 7 (1722). It has been declared that those poor sick who are coming there on request of medication are granted to receive. Further, disciples of physicians and also ordinary doctors do treat diseases of a wide spectrum, and those, who want to try their skills, go to that place. Since he [Yoshimune] ordered that they could treat as they wish, both physicians and patients were coming daily in groups from other places, and much treatment has been done.[59]

Whether its formation led to a general improvement of the health of the people is unclear and deserves further investigation; the dispensary nevertheless lasted until the end of the Bakufu era and from 1830 also became a training ground for the physicians of the *Igakkan*.[60] Unlike his predecessors, Yoshimune showed interest in medical books in general, as the following passage of the supplementary record reveals: 'He also constantly took a look at medical books. Works like *Sheng hui fang* 聖恵方, *He ji ju fang* 和剤局方, *Dong'eui bogam* 東医宝鑑, and *Wai tai mi yao* 外臺秘要 are always piled up at the right side of his seat'.[61]

What were these medical books to which Yoshimune directed his attention? *Sheng hui fang*, "Holy Benevolent Prescriptions", is the abbreviated title of *Tai ping sheng hui fang* 太平聖恵方, a book consisting of one hundred volumes compiled by Wang Huaiyin 王懐隠 (data unknown) and completed in 992. It contains popular prescriptions in use before the Northern Song dynasty including diagnostic methods and diseases.[62] The second book mentioned, too, deals with prescriptions. It was compiled by Chen Shiwen 陳師文 (data unknown) and others and went into print in 1106. It was enlarged under the title *Tai ping hui min he ji ju fang* in 1151. According to Sugimoto and Swain, it was the most important medical handbook used in Japan from the Kamakura to the mid Edo periods.[63] This and other simple books on prescriptions and *materia medica* did much to standardize medicinal preparations and helped to make medical care more widely accessible to the populace in both China and Japan.[64] After the publication and dissemination of *Fukyū ruihō*, Yoshimune

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[58] *Sen'yō ruishu 7-2*, Kyōhō shichinen shōgatsu nijūichinichi, Koishikawa yōjōsho no koto, in: Minami, 299.
[59] *KD* 46, 289.
[60] On the history of the dispensary, see Andō Yūichirō, *Edo no Yōjōsho*, (PHP kenkyūsho, 2005).
[61] *Ibid*., 290.
[62] *CEWO*, 314-5.
[63] Sugimoto & Swain 1989, 138.
[64] *Ibid*., Yabuuchi, 141-2.

decided to print a revised version of *Hei ji ju fang*. His Kyōhō edition, *Zōkō taihei keimin wazai kyokuhō* 増広太平恵民和剤局方, was compiled by physicians like Imaōji Chikaaki 今大路親顕 (1675-1737), who also wrote the foreword to *Fukyū ruihō,* Hosokawa Tōan 細川桃庵 (data unknown), Mochizuki San'ei 望月三英 (1697-1769), Niwa Seihaku and others, using examplars in the Bakufu and Tōshōgu libraries, in the possession of Bakufu physicians, and also Korean and Ming editions.[65] The third book mentioned in Yoshimune's list is the Korean medical book, *Dong'eui bogam*, which was compiled by the famous Korean physician Ho Jun 許浚 (1546-1615) and first published in 1613.[66] It is regarded as the most authoritative medical book in Korea and most later Korean books on medical matters rely upon it. The book itself is mainly based on medical works of the Ming dynasty (1368-1644) with the addition of Korean medical content. It was revised and edited with reading marks for *kundoku* reading by the Bakufu physician Hosokawa Tōan and in 1724 booksellers of Kyōto were induced to publish it for dissemination; in 1730 the price was reduced so that commoners could buy it easily.[67] The last book mentioned in the list, *Wai tai mi yao*, contains prescriptions for internal medicine, surgery, obstetrics, etc, but also information on collecting drugs, their preparation, and points for moxibustion. There is no information on acupuncture to be found as the Tang-dynasty author, Wang Tao 王焘 (ca. 702-72), who compiled it in 752, believed that "acupuncture may kill the living and cannot save the dying".[68]

The compilation of *Fukyū ruihō*

The seven volume book consists of a foreword of six double-pages written in 1729 by Imaōji Chikaaki 今大路親顕 (1675-1737), who is also known by the name Manase Genki 曲直瀬玄耆, and moreover decided upon the title of this work.[69] The table of contents and a short introduction of the authors follow, in which they explain their choice of remedies. The illustrations in the last volume are by Kanō Tanenobu 狩野種信 (1666-1739), a painter of a prominent background.[70] It is not known how Yoshimune got his inspiration to publish a self-help book among his other initiatives to perform health care. His keen interest in medical books might have induced him to make an additional contribution to health care, but he also might have been stimulated by governmental projects of China's past to bring out and

[65] Fukui 1985, 89. In Fukui, there is also a detailed description of the revisions they carried out. For the Japanese transcription of the text, they used the Japanese version of Noro Genjō's original text.
[66] On the process of how Yoshimune obtained a copy of *Dong'eui bogam,* see Kornicki 2013, 82.
[67] *Ibid*., 80.
[68] *CEWO*, 570.
[69] KT 46, 497; Kosoto, 329.
[70] Kosoto, 329.

disseminate medical manuals for the public.[71] Again, the *Tokugawa jikki* provides some insights into his motivation and the circumstances of its publication. *Fukyū ruihō*, it states, "is a handbook that aims to help the indigent and others in distant provinces. Therefore, Yoshimune ordered Bakufu physicians to consult many books, even those with strange formulas, for immediate use and to compile an easy-to-understand medical handbook written in simple Japanese for the common people."[72]

The purpose of the book is clearly written in the foreword of *Fukyū ruihō*, where the writer states that "in this country all people are enjoying the great peace and the only distress is disease. If it hits the cities, there is no lack of doctors and medicines, but if one gets ill in the countryside, the only thing what one could do is to fold one's hands and await death. The benevolent virtue of the authorities initiated this book as an easy path to precious instructions and treatments for health care; may those suffering from illness live out their allotted span of life."[73] The book was finished in 1729; and the authors, the *ban* physician Hayashi Ryōteki 林良適 (1695-1731), and the *kobushin* physician Niwa Seihaku, were rewarded with ten silver pieces for their services in connection with its compilation.[74] An official announcement (*ofuregaki*) informs the reader that "it was published in twelve separately-bound booklets[75] on the sixteenth day of the second month of the following year, and [Yoshimune] wished it to be sold at a fixed price to relieve the poor from the torment of sickness by means of a book that informed readers about remedies for immediate help."[76]

The authors

Hayashi Ryōteki was the adoptive son of Hayashi Ryōi 林良以 (data unknown), a physician from Kii, who had already enjoyed the confidence of Yoshimune before he became Shōgun. Yoshimune, as is recorded in the supplementary record of the *Jikki*, appreciated Ryōi's 'sincere character' and compassionate approach to medicine. The father worked together with Niwa Seihaku, the other compiler of the self-help book. They discussed major treatments using polygonatum falcatum rhizome (*ōsei* 黄精) and checked the authenticity of drugs imported via Nagasaki. Ryōi also produced home remedies like "soul-returning pills"

[71] On governmental medical texts initiatives in Song China see Goldschmidt 2009; Hinrichs 2011. Yoshimune might also have been influenced by the politics of the Chinese Emperor Kangxi (r. 1661-1722); see also Oba Osamu, *Tokugawa Yoshimune to kōkitei*, (Ajia books 19, 1999).
[72] *Tokugawa jikki*, *KT* 46, 251.
[73] *Fukyū ruihō* 1, foreword 1a.
[74] *Tokugawa jikki*, *KT* 46, 513; about the ranks of the Bakufu physicians, see chapter 5.
[75] In general, one 'volume' is divided into two booklets.
[76] *Ofuregaki*, 994; Fukui 1983, 200.

(*hankontan* 反魂丹) and others, and later he turned to the production of charred herbs.[77] His own son, Ryōki, died at the age of twenty-seven and, at the behest of Yoshimune, he decided to adopt a son into his family to continue the line; the choice fell on Ryōteki, the second son of the Bakufu physician, Bandō Yoei 伴道与栄 (data unknown).[78]

Niwa Seihaku was one of the herb collectors Yoshimune dispatched across the country to detect and collect medicinal materials. This initiative was part of an extensive project that aimed at the domestication of medicinal drugs, including the home production of ginseng. Seihaku was also in charge of the cultivation of palm tree saplings and a number of Western medicinal herbs which had been brought to Japan aboard a vessel of the Dutch East India Company. When it became necessary to set up a Japanese medicines vetting committee (*Wayaku aratame kaisho* 和薬改会所) in 1722 to identify and verify indigenous drugs as well as the assessment and control of their quality, he and other pharmacologists sat there to vet medicinal herbs and minerals that were brought in by collectors from every region in the country. The committee assumed the role of general inspectorate for pharmaceutical affairs, and its interest also included Western *materia medica*.[79] Seihaku is also mentioned in the supplemental records of the *Tokugawa jikki* together with other physicians such as Taki Mototaka 多紀元孝 (1695-1766), the father of Motonori, and Mochizuki San'ei, the pioneer of the Evidential School of learning (*Kōshōgaku* 考証学) to which Taki Motonori later belonged.[80]

The above passages show that prior to the publication of Motonori's emergency handbook considerable activity had been under way to enhance public health by ensuring the provision of medicine to a broad public via the cultivation of medicinal drugs, the construction of a hospital, and the compilation of a medical guidebook. In the following, the circumstances around the production of the second official medical handbook and the motivations of the people involved are examined.

3.2 *Kōkei saikyūhō* and the historical background of its publication

Kōkei saikyūhō was completed in 1787 by Taki Motonori with the help by his son Motoyasu and titled *Saikyūhō*. However, it was not issued until 1790, when Ieharu's successor, Tokugawa Ienari, took the project over and changed the title to *Kōkei saikyūhō*.[81] In the prefaces we find some hints about the shōgun's reasons for initiating a medical manual for the

[77] About *hankontan*, see chapter 4.
[78] *Tokugawa jikki*, *KT* 46, 288.
[79] Kasaya, 174-5.
[80] *Tokugawa jikki*, *KT* 46, 287; Kosoto, 17.
[81] Asami 1990, 816.

people, and also the official version of the *Tokugawa jikki* provides us with some valuable insights into the circumstances of its compilation.

The initiator: Tokugawa Ieharu and his motives

Ieharu's concern for the welfare of the people and the circumstances of its compilation are documented in the preface by Nakano Kiyofude. Written in *hiragana*, he mentions Ieharu's worry about the health of his close and distant vassals: if those living nearby felt sick and had to stay at home, he could send a doctor. But for people living in distant places where no doctor was available, there was no chance of medical assistance or no time to call for any.[82] The same reasons were also given in Sano Noriyuki's preface,[83] and in the *Tokugawa Jikki* we find the following entry:

> While every morning the [shōgun's] pulse was examined […], he continually wondered that if there were no epidemics in this world and no bad diseases, the people would not have to suffer. And there also would be no severe diseases among the *daimyō* and *hatamoto*. When he heard that there is an epidemic in the world or someone fell seriously ill among his retainers, his appearance changed and he felt so worried that he was even asking about [possible] treatment. Being told that all is quiet, that there were also no epidemics, his mood changed for the better. When his close attendants had to stay at home because they were ill, he granted them treatment by a physician any number of times and also inquired about their illnesses. When the servants (*konando*) attending in the ante-room coughed or sneezed, […] he questioned them in much detail. Although they ensured him that it was nothing, he was very much concerned having it constantly on his mind that they receive some medicine. It is said that thereafter when they talked together, sneezed or coughed, it was done in such a low voice that it would not be heard.
>
> He thought that it might be difficult for those of humble origin to see a doctor immediately when they suddenly became ill. If there were methods that could be of help, they should be explained to all people so that even those living in remote areas could be helped. He often told his close attendants that from time to time he himself experienced the efficacy of easy emergency methods chosen from various books. So later, he ordered Taki Angen Motonori to compile a book called *Saikyūhō*, to have it carved and widely disseminated. He, however, passed away before its printing. [The following] Shōgun Ienari followed his will and allowed Angen to publish and distribute it throughout the country.[84]

Besides the wish to provide the people with the basics of health care that is expressed in the forewords as well, the entry in the *Tokugawa jikki* gives some additional information about Ieharu's personality and an apparently turbulent period of time during which epidemics were rampant. Like his father Ieshige, who formally ruled the country between 1745 and 1760, he

[82] *Kōkei saikyūhō* I, preface Nakano Kiyofude, 2b.
[83] *Ibid*., preface Sano Noriyuki, 1a-b.
[84] *KT* 46, 838.

left government policy to his personal advisor, Tanuma Okitsugu;[85] and if we want to know more about the times of Ieharu, we have to rely on the political activities of Tanuma.

Historical background: the Tanuma era

In general, the Tanuma era is associated with corruption and bribery. The major problems he faced under his administration were of an economical and social nature. One issue was the impoverishment of the Bakufu vassals, particularly those who did not hold official positions and were totally dependent on their inherited stipends. They constituted the Bakufu's standing army, and their impoverishment meant an erosion of the government's military capabilities. Another financial setback was caused by the Edo fire in 1772 and the Great Temmei famine that required massive government relief measures.[86] To encounter these problems he encouraged mining and other profitable industries and trades which could be taxed for the benefit of the state. By developing new state monopolies and commercial taxes, he utilized the rising merchant class and absorbed a portion of its wealth into the state treasury.[87] These measures were in general seen as obvious evidence of corruption within the administration. These initiatives, on the other hand, can be judged as an attempt to control prices by forcing the merchants into monopolistic associations which are easier to supervise, and also some of the measures adopted during these years put the government in the forefront of innovation. In particular the encouragement given to foreign trade at Nagasaki and the first tentative move to permit intercourse with the Russians showed that the Bakufu under Tanuma tried to adjust their policies to altered conditions.[88]

Under his administration a rising number of riots and natural disasters took place. Protest in rural areas had risen by the 1780s to an average of more than fifty incidents a year.[89] In the 1750 protests had usually taken the form of demands from village communities for tax reduction or food or seed, but by the 1770s and 1780s even prosperous members of villages were attacked by poor farmers. The situation was aggravated by a succession of natural disasters like storms, droughts, volcanic eruptions, and famines due to crop failure. All this factors caused the downfall of Tanuma. He was seen to be directly accountable for his country's ailments, and in autumn 1786, he finally had to resign after the death of Ieharu.[90]

The chief accusation against him and other officials is that they did little to remedy these conditions; instead they closed their eyes and shut themselves within the capital to

[85] Tsuji, 461.
[86] *Ibid*.
[87] Hall 1955, 18.
[88] *Ibid*., Tsuji, 462.
[89] Tsuji, 465.
[90] *Ibid*., 466.

indulge their own pleasures.[91] Tanuma, nevertheless, also brought some qualities to the Shogunate's government which were very rare for the Tokugawa period. He fostered a liberal atmosphere in which Western sciences were promoted, and many of the movements which made possible Japan's adjustment to the modern world originated in his years.[92] In his times fell, for example, the inventions of Hiraga Gennai 平賀源内 (1728-1780), a pharmacologist, physician, author, and student of Western science; the translation of Kulmus' anatomical tables (*Kaitai shinsho* 解体新書 1774) that initiated a sequence of other translations of Western medicine; and the arrival of Carl Thunberg, a Swedish botanist and physician, in Nagasaki (1776) who trained Katsuragawa Hoshū 桂川甫周 (1751-1809) and others in surgery.[93] Under Tanuma, the Bakufu was willing to permitting the circulation of foreign ideas, but this era of liberal foreign policy ended quickly after Matsudaira Sadanobu came into power. Hall is also critical of Yoshimune, stating that many troubles which came to a head in Tanuma's time had their origin in Yoshimune's policies.[94] He believes that the basic factor underlying the poor press which Tanuma received is to be found in the methods he advocated. The policies adopted by the shogunate during the period of his active participation in government were less in keeping with the principles of Confucian theory and military precedent than those of Yoshimune, and thus they failed to evoke the support of the scholars who were the chroniclers of the time.[95]

Since Tanuma held the reins of power, it is hard to believe that Tokugawa Ieharu played an active role in performing benevolent government, and we have instead to assume that it is owed to the personality of Taki Motonori that the home doctor manual project was launched. What happened to the handbook after Tanuma was forced to resign? There is no sign that his fall and the death of Ieharu affected the Taki family. On the contrary, Motonori and Motoyasu were allowed to publish *Kōkei saikyūhō* under Matsudaira Sadanobu, who was appointed as councillor for the following shōgun Ienari.

The executor: Matsudaira Sadanobu as chief councillor for Tokugawa Ienari

It was the riots and peasant protests that paved the way for Sadanobu to be elevated to the post of the chief senior councillor for the following minor shōgun Tokugawa Ienari. At his urging the new shōgun called together the senior administrators and ordered them to perform

[91] Hall 1955, 18.
[92] *Ibid*., 19.
[93] Fujikawa 1911, 104-5.
[94] Hall 1955, 99-100.
[95] *Ibid*., 18. Not to forget those who realised in the remaining years of the Tokugawa period that not everything he did was evil. These were for example Uezaki Kuhachirō, or Naitō Chūmei who realised the short-sightedness of the Kansei Reform and recognised Tanuma's forward looking policy; *ibid*., 142.

their duties in accordance with the spirit of the eighth shōgun, Tokugawa Yoshimune.[96] Reversing Tanuma's policies, Sadanobu tightened traditional controls and tolerated the study of Western languages and sciences purely as a technical means.[97]

For Ooms, the idea of benevolent government was a welcoming notion for Sadanobu, portraying him as a ruler who was a father or benefactor of the people. It is therefore not surprising that Sadanobu tried to give his rule a benevolent character. Yet the principles of *jinsei* were easier to apply in his domain than on a national level. When his domain was hit by a famine in 1784, for instance, he cancelled land taxes, sent out a call inviting the wealthier peasants or townspeople to assist their neighbours, and awarded those who responded with a tablet to be hung at their entrance gates as official recognition of their selfless deeds. He also brought medicines to the domain as a preventive measure against the possible outbreak of epidemics, which often follow famines.[98] However, the task of restoring the Bakufu's strength through an overall reform was much more difficult after Yoshimune's time, for the problems had grown in complexity partially as a result of certain of Yoshimune's measures. Although the politics of the Tanuma era were in many respects a continuation and further development of policies and trends initiated by Yoshimune, it was his and not Yoshimune's regime that was discredited.[99]

Sadanobu believed it necessary to rebuild the entire social system, to restore morals, and to revive the economy. As one step to restore morals he issued the ban on heterodoxy (異学の禁 *igaku no kin*) by proclaiming the Zhu Xi philosophy as it was defined by the Hayashi school to be the right teaching. To the Bakufu, members of the Ancient Learning School (*kogakuha* 古学派), especially the Sorai school (*kobunji gakuha* 古文辞学派), and the proponents of eclecticism (*setchū gakuha* 折衷学派) seemed to be turning people away from the practical application of Confucian ethics. Not only the samurai but all Japanese were to be reformed through proper Confucian morality. This led both to stricter censorship and to the training of capable officials. In the light of the *Igaku no kin* the transformation of Taki's private medical school into the Igakkan might also be seen as an impulse of the Bakufu to encourage scholarship.[100]

When Sadanobu started the reforms, the influence of the Tanuma faction was still very strong, but no longer workable. For carrying out the reform he reinforced his political power

[96] Tsuji, 467.
[97] Hall, *loc. cit.*
[98] Ooms 1975, 55-6.
[99] *Ibid*., 4.
[100] Tsuji, 467-9.

and assiduously collected information on individuals.[101] These comments on personalities are displayed in *Yoshi no sōshi* よしの冊子. It is a record based on observations, rumours and comments about people over the period from 1787 to 1793 compiled by Mizuno Tamenaga 水野為永 (1751-1826) who was the right-hand man of Matsudaira Sadanobu during his reforms.[102] Most parts of the document are of a revealing nature, contain bitter criticism, and not lacking exaggeration, but the source as such provides some background information on Bakufu physicians in general. There are more than two hundred entries from *Yoshi no sōshi* referring to Bakufu physicians, which have been partly analysed by Machi regarding to the circumstances of the *Igakkan*'s establishment.[103] Motonori seems to enjoy a general popularity in contrast to his son, Motoyasu, of whom no positive record is found in *Yoshi no sōshi*:

> Taki Anchō [Motoyasu]: his reading ability tends toward non-existent. Not wicked, but leads a dissipated life. Good relationship to his father Angen [Taki Motonori]. When he sent his wife back, he kept the outfit allowance and garments. Speaks excessively ill of others. He borrows books and other things from others, but does not give them back or loses them. […] [Sugiura] Gentoku sells other people's books. [They] knock people over and are rowdy in the streets. However, there is no one in Edo like Anchō and Gentoku to be in search of books to read.[104]

Also Mori Junzaburō used this source among other records to gain an impression of Motoyasu, pointing out that "whichever person it may be, he is praised on the one hand, while it is difficult not to be torn apart on the other."[105] Yet by referring to additional sources such as the *Zuihitsu*-collection "Night talks on the eleventh" (*Kasshi yawa* 甲子夜話) written by the Hirado domain lord Matsura Seizan 松浦静山 (1760-1841) Mori concludes that Motoyasu was a man of good repute.[106] Although *Yoshi no sōshi* is a private record reflecting an individual's views, and preferences, it nevertheless exposes the trends of the public opinion and plots or power games inside Bakufu circles. Clearly for some reason public opinion was not in favour of Motoyasu. Yet the passage also reveals that Motoyasu was appreciated for his desire for greater knowledge.

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[101] Machi 1999, 515.
[102] See *Nihon koten bungaku daijiten* 6, 162.
[103] Machi, loc. cit.
[104] *Yoshi no sōshi* 44, 543; in: *ibid*., 517. On Sugiura Gentoku, see chapter five.
[105] Mori, 32; *Zuihitsu*-literature Japanese form of short poetry of satirical contents; Lewin, 417.
[106] Mori, 32;

Historical background of the Taki family

Taki Motonori and his son were the descendants of a long-established family of physicians who date back to Tanba no Yasuyori`s 丹波康頼 (912-995) son. They called themselves Taki from the time of Mototaka 元孝 (1695-1766), who established a private school for medical studies known as the *Seijukan* 躋寿館, later to become the *Igakkan*. Mototaka became Spoon Physician of shōgun Yoshimune, but with the shōgun's death he lost his position.[107] Since the Bakufu physicians were responsible for the health of the shōgun and hence close to the inner part of the castle, the influence of Taki Mototaka was surely considerable. Being granted permission to establish and rebuild his private school, even after it had been destroyed twice by fire, showed the full confidence that he enjoyed. Taki Motonori continued his father`s school for medical training and in 1779 became Spoon Physician, which was followed by receiving the honorary title of *hōgen* in 1790. In the same year the *Igakkan* was placed under the control of the Shōgunate, and Motonori stayed there and continued his task of training the students. Besides his emergency handbook he was the author of other medical books like "Outline to Health Care" (Y*ōjō taii* 養生大意) and "First Lessons for Physicians" (*Ika shokun* 医家初訓).[108] At first Motoyasu also enjoyed the confidence of Matsudaira Sadanobu who promoted him to *okuishi* and *hōgen* in 1791. He revised his father`s text of the emergency handbook and helped him in educating the children of other physicians at the *Igakkan*. In 1799 he became head of the family and their estate, and Spoon Physician, but lost the title and his post as close physician to the shōgun in 1801 and was put under house arrest for one hundred days after he raised an objection to the election of another Bakufu physician.[109]

The Taki family was responsible for copying all the volumes of the *Ishinpō* 医心方 (984), the oldest extant medical work produced in Japan, which Emperor Ōgimachi 正親町天皇 (1517-1593) presented to Nakarai Zuisaku 半井瑞策 (1522-96), head of the Institute of Medicine (*Ten'yakuryō* 典薬寮) at that time, as a gesture of esteem. The Nakarai family, desendants of the Wake household and hereditary head of the *Ten'yakuryō*, served as Bakufu physicians in Edo Japan. At the command of the Bakufu, Taki Motonori copied all twenty volumes of the manuscript kept in the Ninnaji and stored them afterwards in the *Igakkan*. But since the Ninnaji copies was not complete, Motoyasu asked the Nakarai family for assistance, knowing that they possessed all the volumes. They refused, with the explanation that it had

[107] Asami 1990, 814; on the rank of Spoon Physician, see chapter 5.
[108] An annotated overview of his writings is provided in Mori, 292-348.
[109] Asami, 816; Machi draws a detailed picture of the heydays of the Taki family and Taki Motoyasu's decline; Machi 1999, 515-42. See also chapter five.

been 'lost by fire'. In fact, there had been a blaze in 1788, which is recorded in *Shin' enseki jusshu* 新燕石十種, a collection of chronicles of remarkable events in the Edo period. The Bakufu thereupon felt offended and ordered 'withdrawal' (*sashihikae*) on the Nakarai for not having them delivered. It confined the Nakarai to their house, a popular penalty in Edo-period Japan. In 1854, after more than fifty years, the Nakarai family expressed their 'regret about the error committed' and handed over all thirty volumes. It took six more years for the copies of the document to be completed and in 1860, the original was returned to the Nakarai Family. In 1984, their *Ishinpō* was declared a National Treasure and is presently kept in the Tokyo National Museum.[110] It illustrates vividly the influence and shōgunal favour which the Taki family enjoyed. Therein may lie one crucial factor that allowed Motonori to publish *Kōkei saikyūhō* after Ieharu's death, while Sadanobu's referral to the policies of Yoshimune who initiated the first official self-help book may have facilitated its publication and dissemination. In the following, the motivation of the author to write the self-help book shall be examined more closely.

Motives of the author

In the twelve double-page introduction to *Kōkei saikyūhō*, in which the author provides the reader with general explanations on herbs, symptoms, and physicians, we find also some indication of his motives:

> As a rule in the past and present, the general way to avoid affliction is to ask a doctor for treatment when fallen ill. But facing a sudden illness the people living in remote places at the seaside or mountains, and under unfavourable conditions even those living in big cities, call a doctor in vain […]. In such a situation, neither the wise is able to make a plan nor the brave make a decision, even if naked weapons may be trampled under the feet and title and stipend were declined[111]; in this single event, one is confused in one's heart and unable to handle the situation as something is happening in one's life that should not occur. Women and children in general fall into panic, and even warriors, who are loyal, brave and filial in their hearts, devote themselves to prayers with deep sincerity […]. [In such a situation], they ignore the 'depletion and repletion' (*kyojitsu* 虚実)[112] [symptoms] of an illness and are unable to distinguish good medicine from bad ones; and by recklessly applying pills or moxa herbs they divert a depleted and supply a replete condition. As a consequence, they turn a person to be resuscitated into a foreign matter. Treated according to the rules of medical care, death will become a providential matter. To take somebody's life by [administering] the wrong medicine means an untimely death, and that is indeed deplorable. Therefore even

[110] Asami, 817.

[111] Quotation from *Liji* 礼記 *Zhong Yong* 中庸 9; Legge translated it as "(…) dignities and emoluments may be declined; naked weapons may be trampled under the feet (…)"; Legge, 389.

[112] The relation between bodily resistance and pathogenic factors that lead to disease is expressed by deficiency or void (虚) and abundance or repletion (実). Deficiency means low resistance of the body, whereas a repleted body or part of the body means that disease inducing factors are flourishing; *Chūgoku kanpō igo jiten*, 143.

> one dose of medicine or one cone of moxa – if not mistaken to a considerable degree – should give hope for life, and that is the reason why I made a selection [of remedies] in this book.[113]

His intentions generally concur with the statements in the above mentioned sources, in which the lack of doctors in rural regions or, for a variety of reasons, the impossibility of consulting a physician is deplored, but by contrast he stresses the importance of basic medical knowledge to perform first aid. Since a general lack or mistaken application of medical knowledge puts a person's life at risk, the user or potential reader needs some guidelines for the proper use of medicine, and that is the reason why he wrote the manual. However, unlike Ieharu in the Tokugawa *jikki* Motonori does not mention any epidemics or natural disasters in his introduction as a motive for the compilation of the manual. This is all the more astonishing as one of the most severe famines, the Temmei famine, fell during his time. His additional remarks in the third volume of *Kōkei saikyūhō* illustrate how serious the situation at that time actually was. It opens with the main entry "Kinds of violent death" (*ōshi no rui* 横死の類), in which we find a chapter devoted to "Death from starvation" (*gashi* 餓死). Therein, we find a detailed documentation of the actual situation around the 1760s when Japan was hit by natural disasters followed by famine. Prior to the detailed explanation how to help a starving person, Motonori educates the reader that "by no means should a person, who is about to die due to many days of fasting or starving, at first be given some rice to eat. If one does this, he will instantly die. Furthermore, only in rare cases may one administer some medicine."[114] His comments following the treatment are telling and reflect the actual state by giving a vivid picture of that time.

> For some time, due to years of bad harvest, starving men, women, old and young in several numbers, by holding themselves on sticks, wander around in the streets of the towns. By and by, exhausted by hunger they collapse, crawl or remain capable only of breathing. Passers-by such as wealthy merchants, who cannot bear to see this, give them some food, which is in general a rice ball; however, after having eaten some they suddenly collapse or die still holding the rice ball in their hand, of which not yet half is eaten. This happens because the above [explained] rule is unfamiliar to the giver. How regrettable; this should not end in such a deplorable result. If this technique is not known by the people, they involuntarily will harm others even though they possess a compassionate heart. Therefore, for instructing further generations, I am writing this down.[115]

In times of calamities occurring prior to Motonori's days, the Bakufu in general ordered the distribution of rice and drugs as relief management, but we also find the publication of

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[113] *Kōkei saikyūhō* I, introduction Taki, 1-2a.
[114] *Ibid*. III, 3a.
[115] *Ibid*., 3b.

manuals that focus on famine relief. One of the most well-known of these manuals is "Record on famine relief for the common people" (*Minkan bikōroku* 民間備荒録, 1771) written by the domain physician Takebe Seian 建部清庵 (1712-82) as a result of the Hōreki famine (1753-57), in which he witnessed the wretched condition of the people. Therein, he introduces a large number of edible parts of nature's products that can be safely consumed in times of famine.[116] Depending on the engagement of the respective domain lords, epidemic manuals and famine relief were already initiated in the seventeenth century as the activities of the Hoshina clan of Aizu domain show. In 1672, domain physicians were ordered to write down treatment methods against an epidemic which had stuck the domain.[117] Also the aforementioned Niwa Seihaku and Mochizuki San'ei, for instance, compiled a one-volume booklet entitled "Recipes for saving the people" (*Kyūmin yakuhō* 救民薬方) that contains easy-to-make recipes against infectious diseases and food poisoning in famines. Written in 1733, the original booklet contains eleven formulas gained from their experience of the Kyōhō famine of 1732. After the Tenmei famine, the manual was enlarged by another seventeen recipes and in times of food shortage used as reference.[118] The extent to which diseases that are related to epidemics are listed in *Fukyū ruihō*, and especially in *Kōkei saikyūhō* will be revealed in the following chapters.

It is striking that in most cases these initiatives were ordered at domain level, and it seems that the effects of epidemics on government policies played a minor role compared to their handling in China. As Goldschmidt points out, during the Northern Song dynasty (960-1127) in response to threats of an epidemic an approach different from the usual provision of economic relief was undertaken, that is to combat the public health crisis by expanding medical knowledge, which meant publishing medical books dealing with the treatment of epidemics.[119] This publication project with the revival and revision of an old medical treatise, the *Treatise on cold damage disorders* or *Shan han lun* 傷寒論 during the reign of Emperor Renzong 仁宗 (r. 1022-63) of the Song had, according to Goldschmidt, such an impact on the medical landscape that it changed the face of medicine to the extent that physicians by the end of his reign were faced with new medical knowledge that they could not immediately comprehend.[120] Epidemics in imperial China have similar implications as negative portents regarding the "Mandate of Heaven" (*tian ming* 天命). This means that an emperor and a

[116] See also chapter two.
[117] Tsukamoto 1991, 214-5.
[118] Kosoto, 104.
[119] Goldschmidt, 81.
[120] *Ibid*., 71-2.

dynasty were supposed to be able to rule only as long as they retained the Mandate of Heaven. Should an emperor neglects this duty, heaven would show its displeasure by sending down ominous portents and natural disasters, and if he failed to attend to such warnings, heaven would withdraw its mandate and select someone else upon whom to bestow a new mandate to rule.[121] In Japan, however, the emperor receives his legitimacy as a successor in an unbroken line from the sun goddess Amaterasu Ōmikami, and although the Japanese emperor, the Tennō, represented the "will of the heaven" as well, he placed on the shōgun the responsibility of ensuring the well-being of the people.[122] As far as we can see at this stage, epidemics and famines were likely to have facilitated the fall of Tanuma Okitsugu, and seemed to have encouraged the order to launch *Kōkei saikyūhō,* but they did not touch the authority of the Tennō.

Conclusion

Even if the ruling class was aware of the *jinsei* concept, it is likely that this term was not politically and ideologically influential prior to the Tokugawa period. However, it gradually created awareness among political leaders and was skilfully applied by local lords and Bakufu officials in the course of the Tokugawa period when they launched several projects for the purpose of governance on local and national level. Of these official initiatives the printing activities of the Bakufu, and especially those projects that aimed at enhancing public health care, should be mentioned. These became visible by the publication of two self-help manuals, *Fūkyū ruihō*, which should be seen as a part of a whole programme of health care measures, and *Kōkei saikyūhō* which, by contrast, resulted from the individual engagement of a single physician family in the service of the Bakufu. Both manuals aimed at imparting medical knowledge for a broad readership, and in the following chapter we will consider the extent to which the medical information they contain differs from one the other; that is, what kind of sources they have used to write the manuals, and how the different medical schools at that time shaped the medical knowledge of their followers.

[121] *Ibid*., 82.
[122] Hall 1968, 165.

Chapter Two: The textual corpus of 'governmental' knowledge in medicine

In this chapter I will explore the question of what authorities Motonori based *Kōkei saikyūhō* upon and how these sources differ from the medical knowledge presented in *Fukyū ruihō*. I shall also consider how this information is presented in the respective texts and the impact of the sources the authors used on the development of the fields of medicine, botany and agriculture. I therefore will start with a comparison of one disease that is contained in both texts.

1. Acute jaundice as an example

The following case study focussing on "Acute jaundice" (*kyūō* 急黄) will illustrate how medical information that derived from various sources was adapted and incorporated into the texts to provide the reader with an efficient method for performing the necessary treatment. This example will not only reveal potential variations in style and explanation but also the handling of the sources by the respective authors when addressing the reader.

Acute jaundice in *Fukyū ruihō:*

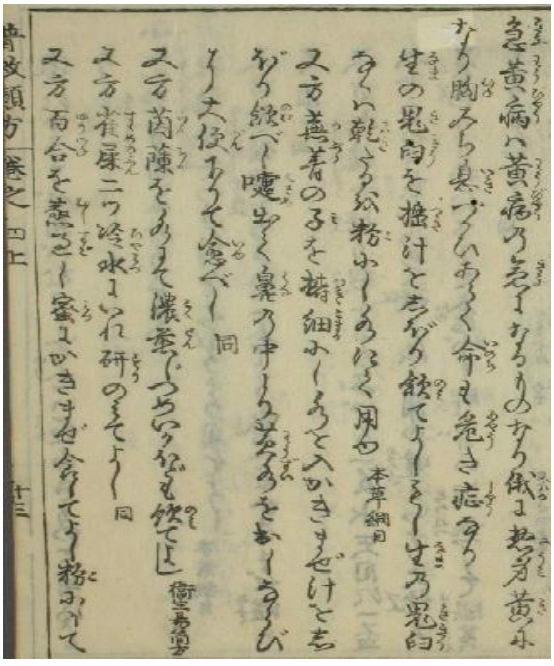

Fig. 1. *Fukyū ruihō* IV part 1, 13a

> Acute jaundice is a disease in which jaundice breaks out abruptly. The whole body becomes yellow, [the person is troubled with] an oppressed chest, breathing is arduous and harsh, and the symptoms are life-threatening.

It is good to grate fresh podophyllum versipelle root (*kikyū* 鬼臼), squeeze the juice, and drink it. If there is no fresh root, grind a dried one, and take it in water. *Ben cao gang mu*[1] Another recipe is to break open a turnip (*kabura no mi* 蔓菁子)[2], cut it into small pieces and stir in water, then squeeze out the juice and drink it. When sneezing occurs, yellowish water from the nostrils comes out and defecation takes place, then healing takes place. *Ibid.*[3] Another beneficial recipe is to boil down Capillary wormwood (*inchin* 茵陳)[4] , from which as much as possible should be taken *Wei sheng yi jian fang*[5]. Another beneficial recipe is to grind two pieces of sparrow excrement and put it into cold water, and drink it *Ibid.* Or steam a lily bulb, mix it with molasses (*mitsu*), and eat it. It would be the best to grind it, then mix it with molasses, and take it. One should use the white spring lilies. *Ibid.*"[6]

Acute jaundice in *Kōkei saikyūhō*

Motonori's entry for the same disease reads like this:

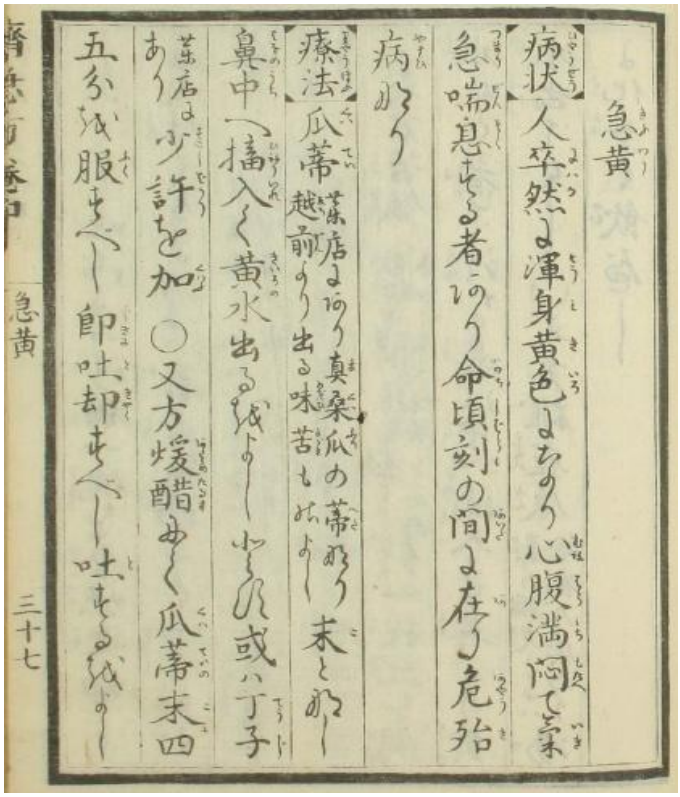

Fig. 2. *Kōkei saikyūhō* II, 37a

[1] Li, *Ben cao gang mu* 17 part II, 35a. The references in the original are given in a small font in the translation.
[2] Also, *kabuna*; there are basically two different varieties, the European and the Asian one. More on *Kabuna* and its historical significance in Arioka, 169-187.
[3] *Ben cao gang mu* 26, 43b.
[4] Ch. *yin chen*, botanical name: artemisia capillaris Thunb., Suzuki H., 15-6; Bensky, 146-7.
[5] *CEWO*, 199.
[6] *Fukyū ruihō* IV part 1, 13a-b.

Acute jaundice

Symptoms: The whole body of the affected person suddenly becomes yellow; he suffers from painful oppression in the chest and abdomen and his breathing is rapid and asthmatic. The disease will become life-threatening if this condition lasts for a while.

Treatment: Grind dried melon pedicles (*katei* 瓜蒂)[7], available in a pharmacy. These are the pedicles of the Makuwa melons[8], the bitter ones from Echizen are good, and screw them into the nostrils; it is good if yellowish water comes out. Or add a little bit of cloves, available in a pharmacy. Another recipe is to drink four or five *bu* of ground melon pedicles in warm vinegar; one instantly has to vomit which would be good. If one does not vomit, one has to take a piece of sugar and gulp it down. If vomiting cannot be stopped, one should drink a small portion of musk in hot water. This method against constant vomiting is presented in the following "intoxication" section. Or grate a turnip (*kabura no mi* 蔓菁子), this is a vegetable item, take the juice, mix it in water and drink it. Another recipe is to make a hole in a bitter bottle gourd (*nigafukube* 苦瓠)[9], its shape is as long as the *yūgao* variety, it has a small trunk and a large tip and tastes bitter, cook it in water and dribble the sap into the nostrils; it is good if yellowish water comes out afterwards. Or dissolve the dung of male sparrows (*osusume fun* 雄雀屎), these are their droppings and their excrements are tapered; in hot water and drink a lot of it.[10]

This comparison not only shows the difference in the style of the texts - *Fukyū ruihō* uses mostly *hiragana* and the few characters in the text have a reading gloss (*furigana*) whereas the text in *Kōkei saikyūhō* is heavily interspersed with Chinese characters with the Japanese meanings indicated in *kana* at their side - but also some distinctions in providing and editing the necessary information. Although the older manual seems to be less demanding for the reader at first glance, *Kōkei saikūhō* is more elaborate in giving the required information on how to prepare the recipes, and, even more important, where to find the necessary ingredients and what they are supposed to look like.

The similarity of the recipes is striking. It seems that the authors obviously selected formulae from identical sources, but we should also keep in mind the possibility that the scope for treating this kind of disease might have been limited to a small number of alternatives. This indeed applies to diseases such as jaundice, as Miyashita Saburō found out

[7] Ch. *guā dì*, botanical name: cucumis melo; this is the only case in which Taki prescribes this drug.
[8] Famous melon species; its name derived from the town Makuwa (now province Gifu).
[9] Botanical name: lagenaria siceraria; *fukube* is another name for bottle gourd (*hyōtan*). They were scooped out and used as containers for sake. The recipe apparently is quoted from *Ben cao gang mu* 28, 81a.
[10] *Kōkei saikyūhō* II, 37a-b.

in his study, in which he analysed the recommended treatment for malaria, diabetes mellitus, jaundice, and others. He compared the medicinal herbal formulae as listed in a number of representative formularies dating from the third to the nineteenth centuries and discovered that the medications prescribed for the selected disorders changed only once in the course of sixteen centuries. Both the ingredients and the dosage of the formulae remained almost unchanged from the earliest extant formulae until those of the twelfth century. During that time they underwent significant changes to remain, once again, almost unchanged from the thirteenth century through to the most recent recipes.[11] Yet does this also apply to manuals aiming not only at a Japanese scholarly audience but also addressing laypeople? By instancing the entry 'fever' (*shōkan* 傷寒) Tsukamoto found out that in the case of *Fukyū ruihō*, the authors did not entirely follow the prescriptions of the cited sources all the time but left ingredients out and added others. He explains this change or 'adaption' of recipes by referring to the authors' experiences as physicians.[12] However, applying his findings to the case of Acute Jaundice in *Fukyū ruihō* and comparing its first recipe, the intake of podophyllum versipelle root, with the recipe in *Ben cao gang mu*, we do not find any change of the ingredients used. Instead, we discover that the authors of *Fukyū ruihō*, for some reason, failed to indicate the quantity of the drug that should be taken, which is a small cup of the fresh juice in the original text.[13] That the recipe is identical with the original text in terms of ingredients can be explained by the nature of the disease, and Miyashita's conclusions also help to explain the similarity of the recipes in *Fukyū ruihō* and *Kōkei saikūhō*, but why the authors of *Fukyū ruihō* skipped the dosage remains unclear considering the fact that podophyllum is a highly poisonous plant. It might be because of its poisonous nature that Motonori refrains from using it not only in this case but throughout *Kōkei saikūhō*.[14] Before making assumptions on the possible sources that Motonori may have used when writing his manual, we will take a closer look at the medical texts the authors of *Fukyū ruihō* referred to when they selected the formulae for their book to understand the kind of information that shaped medical knowledge at the beginning of the eighteenth century.

[11] Goldschmidt, 2; on Miyashita's studies, see: Miyashita, Saburō, 1976. "A Historical Study of Chinese Drugs for the Treatment of Jaundice", *American Journal of Chinese Medicine*, vol. 4, No 3, 239-43; *ibid*., 1977. "A historical Analysis of Chinese Formularies and Prescriptions: Three Examples", *Nihon ishigaku zasshi*, Vol. 23, No. 2; 283-300; *ibid*., 1979. "Malaria (Yao) in Chinese Medicine during the Chin and Yuan Periods", *Acta Asiatica*, Vol. 36, 90-112; *ibid*., 1980. "A Historical Analysis of Chinese Drugs in the Treatment of Hormonal Diseases, Goitre, and Diabetes Mellitus", *American Journal of Chinese Medicine*, Vol. 8, No. 1, 17-25.
[12] Tsukamoto 1991, 220.
[13] *Ben cao gang mu* 1, 1205-6.
[14] On the materia medica used in *Kōkei saikyūhō*, see chapter four and table I in the appendices.

2. Sources in *Fukyū ruihō*

Both Asami and Nakayama have made an analysis of the sources used in *Fukyū ruihō* with the same results: the authors used in total twenty-seven medical books from which they took the recipes. Of these twenty-seven books Asami has identified twenty which are all of Chinese origin.[15] Nakayama summarised all the sources used in a table, but by doing so, he did not emphasise their origin, but focussed instead on the frequency with which each of the sources was cited in every volume, and the year in which they were brought to Japan.[16] His results are presented in abbreviated form below.[17]

Table 2: The sources used in *Fukyū ruihō* and their frequency[18]

Translation, transliteration and characters	Year brought to Japan	Frequency of recipes
1. Compendium of Materia Medica (Ben cao gang mu 本草綱目)	1607	1983
2. Simple Prescriptions for Health Care (Wei sheng yi jian fang 衛生易簡方)	1638	359
3. Handbook of Prescriptions for Emergencies (Zhou hou bei ji fang 肘后備急方)	1638	297
4. Simple Prescriptions of Worth a Thousand (Qian jin jian yi fang 千金簡易方)	1644	251
5. Effective Formulas (De xiao fang 得効方)	1638	179
6. Best Recipes Propagating theTruth (Zhuan xin you yi fang 傳信尤易方)		155
7. Collection of Simple Prescriptions (Hui ju dan fang 彙聚単方)	1652	104
8. Collection of Formulas for Curing (Zhi fang hui 治方彙)	1646	73
9. Simple Prescriptions for Emergency (Jiu ji yi fang 救急易方)	1638	63
10. Ten Convenient Well-tried Prescriptions (Shi bian liang fang 十便良方)		45
11. Collection of Wonderful Formulas (Zhong miao fang 衆妙方)[19]	1705	30
12. Essential Knowledge for Violent Symptoms (Bao zheng zhi yao 暴證知要)	1687	28
13. Prescriptions Worth a Thousand (Qian jin fang 千金方)[20]	1642	21
14. Effective Recipes for Emergency (Bei ji liang fang 備急良方)	1655	17
15. Collection of Miscellaneous Golden Prescriptions (Sui jin fang 砕金方)		9
16. Continuation of Simple Prescriptions (Xu ji jian fang 続易簡方)[21]		7
17. Benevolent Prescriptions (Zi hui fang 滋恵方)		5
18. Effective and Simple Remedies (Qi xiao dan fang 奇効単方)	1655	2
19. Collection from the Military Ministry (Bing bu shou ji 兵部手集)[22]		1

[15] Asami used *Shina chūsei igakushi* 支那中世医学史 (Kagaku shoin 1981) as reference, a bibliography of more than three thousand medical books covering Chinese mediaeval and early modern period written in Japanese by Liao Wenren; Asami 1991, 973.

[16] For the year the sources came to Japan Nakayama relies on Mayanagi and Tomobe 1992; Nakayama, 23.

[17] I skipped the columns, in which he listed the frequency with which each of the source texts appeared in each chapter.

[18] Nakayama, 23.

[19] Abbreviation of *Collection of Wonderful Formulas for Health Preservation* (*She sheng zhong miao fang* 摂生衆妙方) compiled by Zhang Shiche 張時徹 (1504-?) of Ming Dynasty and published in 1550; *CEWO*, 1750.

[20] Abbreviation for *Essential Prescriptions Worth a Thousand for Urgent Need* (*Bei ji qian jin yao fang* 備急千金要方) written by Sun Simiao 孫思邈 (581-682). The work presents one of the most influential medical sources in the history of Chinese medicine; *ibid.*, 161, 1074.

[21] Also called *Continuation of the Treaties on Simple Prescriptions* (*Xu yi jian fang lun* 続易簡方論, 1243); The Song author Shi Fa 施發 (1190-?) of this six volume book regarded the prescriptions in Wang Shuo's 王碩 *Simple Prescriptions* (*Yi jian fang* 易簡方) as too 'simple' because he had not taken sufficiently in account the discrimination between different syndromes. Therefore, he commented not only *Simple Prescriptions* and criticized the different academic views in Wang's book but additionally added further 160 prescriptions; *CEWO*, 1603.

20. Doctrines on Medicine (Yi shuo 医説)		1
21. Truly Transmitted Prescriptions of the Divine Farmer (Shen nong zhen zhuan fang 神農真傳方)		1
22. Prescriptions from the Hall for Long Life (Bao shou tang fang 保寿堂方)		1
*23.Yang Family's Prescriptions (*Yang shi fang 楊氏方)[23]		1
24. Essence of External Diseases (Wai ke jing yi 外科精義)		1
25. Effective Prescriptions (Ben shi fang 本事方)[24]		1
26. Family [Recipes] of Chen Guanbao (Chen guan bao jia 陳官保家)		1
27. Not specified		2
Total		3638

The table reveals that the first six sources in the table cover around ninety percent of *Fukyū ruihō*, and that the formulae cited from the *Compendium of Materia Medica* – in the following abbreviated as *Ben cao* - covers more than fifty percent of all recipes in the manual, far behind followed by *Simple Prescriptions for Health Care* covering around ten percent, a fact that is also in line with Tsukamoto's findings.[25] In accordance with them, it is therefore valid to say that the *Ben cao* had the greatest impact on *Fukyū ruihō*.[26] Also striking is the fact, which Nakayama and Tsukamoto did not mention, that the formulae of about half of the books are sources that came to Japan in the middle of the seventeenth century. That is, the authors used the most 'advanced' medical knowledge available at the time. Another striking fact is that all the medical sources they used were – as far as can be said at this stage – of non-Japanese origin. In the following, the first six sources will be explained in more detail - as far as they are traceable within the scope of this study - to get a picture of what kind of texts the authors were referring to.

Simple Prescriptions for Health Care is a twelve volume book written by Hu Ying 胡濙 (1375-1463) of the Ming Dynasty (1368-1644) and published in China in 1410. The book contains many more minor prescriptions with one or two medicinal herbs that could be easily obtained.[27] The *Handbook of Prescriptions for Emergencies* is a compilation of extracts of effective prescriptions for first-aid treatment and moxibustion methods written by Ge Hong 葛洪 (283-343) of the Jin Dynasty (245-460), and completed in the third century. It reflects

[22] Abbreviation for Manually Collected recipes of the Military Ministry (*Bing bu shou ji fang* 兵部手集方), a three volume book written by Xue Hongqing 薛弘慶 (data unknown), a governmental official of Tang dynasty; according to Liao, the original text is lost; Liao, 228.
[23] Abbreviation for *Collected Prescriptions of the Yang House* (*Yang she jia cang fang* 楊氏家藏方); *KSM* 7, 881.
[24] Abbreviation for *Effective Prescriptions for Curing all People* (*Pu ji ben shi fang* 普済本事方), a ten volume collection containing common diseases of internal medicine together with the author Xu Shuwei's 許叔微 (data unknown) own medical records and published around the middle of the twelfths century; *CEWO*, 1698.
[25] Nakayama, 22-3; Tsukamoto 1991, 220.
[26] *Ibid*.
[27] *CEWO*, 199.

the achievements of vernacular remedies before the Jin Dynasty.[28] *Effective Formulas* is the abbreviation of *Effective Formulas handed down for Generations* (*Shi yi de xiao fang* 世医得効方), compiled by Wei Yilin 危亦林 (1277-1347) of the Yuan Dynasty in 1337 and block-printed in 1345. It consists of nineteen volumes summarising the experience of his family dating back five generations.[29] The eight volume Ming dynasty book called *Best recipes propagating the truth*, written by Cao Jin 曹金 (data unknown), is one of the most widely used medical sources in *Fukyū ruihō*, and although mentioned by Asami and others, there is not much known about the book itself.[30] The same can be said for *Simple Prescriptions of Worth a Thousand*, of which only the probable date when it came to Japan can be assured.[31] This is, however, not the case with *Ben cao*, which had a far reaching impact on botanical and medical studies in Tokugawa Japan, and therefore will be explained in more detail.

The Compendium of Materia Medica

This Ming-dynasty encyclopaedic book on Chinese *materia medica* written by the herbalist Li Shizhen 李時珍 (1518-93) received little attention in China when it was initially printed in 1596. After the printing was complete, the first complete copy - known as the Jinling edition after the location Jinling (today Nanjin) - was presented to the Wanli Emperor 万暦 (r. 1572-1620). In 1603, it was reprinted in a new edition, later known as the Jianxi edition, and by the middle of the seventeenth century, Li's work had been edited, provided with new illustrations and reprinted several times.[32] The book is organised according to a classification of *materia medica* "from the most fundamental to the most exalted", that is from elemental substances like water, earth, and fire, through several types of plants and animals, and finally to mankind. The 52 chapters included more than 11,000 recipes for almost 1,900 medicines. Li used different kinds of texts, types of citation, and modes of proof to describe many of these categories.[33]

The *Ben cao* is thought to have reached Japan in 1607. The Neo-Confucian thinker Hayashi Razan 林羅山 (1583-1657) got hold of it in Nagasaki, and donated it in that year to

[28] *Ibid*., 918-9.
[29] *Ibid*, 463.
[30] Asami 1991, 974; Mayanagi 1992.
[31] *Simple Prescriptions of Worth a Thousand* was one of the seven works Asami could not detect, in Mayanagi's article however the work is contained in a list compiled to indicate the period of time, in which Chinese medical works came to Japan, but lacks any more information; Asami 1991, 975; Mayanagi 1992, 171.
[32] Nappi, 19.
[33] *Ibid*., 10.

Tokugawa Ieyasu.[34] It is not that the study of *materia medica* was unknown before *Ben cao* came onto the stage in the Tokugawa period; according to Endō, Chinese influence on *materia medica* in Japan began with *Variorum of the Herbal Classic* (*Ben cao jing ji zhu* 本草経集注) written by Tao Hongjing 陶弘景 (456-536) at the end of the fifth century, which came to Japan at the beginning of the seventh century, and it continued in the Nara period (710-94) with *Newly Revised Materia Medica* (*Xin xin ben cao* 新修本草, 659)[35] compiled by Su Jing 蘇敬 and others, followed by *Fully Revised Materia Medica of the Kaibao Era* (*Kai bao chong ding ben cao* 開宝重定本草, 974) which reached Japan in the Heian period (794-1185). For these works to reach Japan, it took at least half a century after the compilation and publication in China.[36] Endō assumes a small and exclusive readership with access to these texts limited to persons affiliated to the Court, physician families and priests, and therefore concludes that the study of Chinese materia medica was unlikely to have had deep roots in Japan. This situation changed with the arrival of *Ben cao* at the beginning of the seventeenth century.[37]

Only some eleven years after *Ben cao* was published in China, the Jinling edition arrived in Nagasaki, and only twenty years later, in 1637, the first Japanese reprint was published.[38] Although Chinese botanical influence was not limited to *Ben cao* - various other books related to materia medica such as manuals on famine relief or horticulture were also imported - none of them surpassed *Ben cao*. According to Endō and Watanabe, this book ushered in the beginning of Japanese research into botany.[39]

It took Japan about a hundred years to digest *Ben cao*. One major achievement resulting from the study of *Ben cao* was Kaibara Ekiken's *Yamato honzō* or "Materia Medica of Japan" (大和本草, 1704) which classified Japanese materia medica into 358 categories. Endō assesses Ekiken's categorisations as more artificially structured but also as more practically and bibliographically orientated than Li's classification. Yet Ekiken did not confine himself to a mere translation of the content of *Ben cao* in his work, but shows evidence of his own fieldwork and experience and therefore clearly demonstrates the first

[34] Mayanagi dates the year 1604 as the time in which the Jinling edition of *Ben cao gang mu* came to Japan, whereas Watanabe K. and others indicates the year 1607 as date; Mayanagi 1992, 177, http://mayanagi.hum.ibaraki.ac.jp/paper01/kinryou.htm (accessed April, 28th 2014), and Mayanagi 1998, 1431-39; Watanabe K., 136.
[35] It also listed drugs from India and „Western regions";Sugimoto & Swain, 85-6.
[36] Endo, 157.
[37] *Ibid*.
[38] On the different Japanese editions, see Watanabe K., 136-44.
[39] Endō, 157-8, Watanabe K., 136.

steps in what Endō has called independent Japanese studies on materia medica.[40] Ekiken was originally a Confucian philosopher in the service of the daimyō of the Fukuoka domain in Chikuzen Province (today Fukuoka prefecture), and came into favour through his ability to combine rationalism with empirical evidence. The combination of these two approaches leads Endō to conclude that Ekiken's reception of *Ben cao* was therefore more influenced by Neo-Confucian thought in the tradition of Zhu Xi than by medical theories, a feature distinguishing Japanese herbalists from Chinese scholars on botany.[41]

Although Ekiken did not have any disciples and his teaching did not lead to the foundation of a school, nevertheless in Kyoto and also in Edo a new tradition of botanical studies began to develop. In Kyoto, it started with Inō Jakusui 稲生若水 (1655-1715), who is famous for his work "Classified collection of all things" (*Shobutsu ruisan* 庶物類纂, 1747), which he compiled together with his disciple Niwa Seihaku, who completed the work after Jakusui's death and his finishing of *Fukyū ruihō*.[42] From Jakusui's school Matsuoka Joan 松岡恕庵 (1668-1746) also emerged. Like his predecessors his studies did not go beyond the reception of Chinese books on materia medica, but he improved and enhanced Japanese research on nature via the ongoing impact of Ming and Qing dynasty studies on famine relief, horticulture and food. For example, for the Japanese readership he published in 1716 "*Materia medica* for famine relief" (*Jiu huang ben cao* 救荒本草, 1404) written by Zhu Su 朱肅 (bibliographical data unknown), in which the original Chinese text was accompanied by Japanese *kunten*.[43] His work "Necessary knowledge for the usage of medicinal drugs" (*Yōyaku suchi* 用薬須知), consisting of a main part (5 vols., published in 1726), a later part (4 vols., 1759), and a supplementary part (3 vols., 1776), is perceived as the forerunner of the study of natural history in Japan. It explains the quality, shape, and authenticity of 320 medicines for daily use.[44] His school put the study of *Ben cao* at the centre of its interests, and from it Ono Ranzan 小野蘭山 (1729-1810), the most prominent practitioner of botanical studies in Japan, later emerged. Ranzan, who was famous for his encyclopaedic knowledge, opened his own school at the early age of twenty-five and started to lecture on medicinal herbs.[45] At the request of Motonori, at the age of seventy-one he travelled to Edo to teach at the *Igakkan*, the official medical academy, where his lectures on *Ben cao* became a central

[40] *Ibid*., 158.
[41] *Ibid*.
[42] *KD* 1, 762.
[43] Endō, 159.
[44] Kosoto, 359.
[45] Ueda, 23.

part of the curriculum.[46] According to Endō, botanical studies in Kyoto received little impetus from studies of Dutch or Western science but focused mainly on Chinese texts, analysing and comparing Chinese natural objects with those in Japan, and taking great pain to identify the real object with the name given. Yet the absolute trust they placed into *Ben cao* prevented a critical reflection on the issue; instead, they accumulated massive data regarding Japan's natural objects.[47]

Endō considers that the beginning of botanical studies in Edo is marked by the dispatch of the herb collectors initiated by Yoshimune, a project that resulted in the aforementioned *Shoshū saiyakuki* and other projects that were already sketched out in the previous chapter. Like Hall, he perceives Tanuma's liberal policies to have been the motor for positive developments in the production of medicinal herbs and food owing to the scholarly focus on practical training and experiment.[48] Ueda argues similarly by stating that within Yoshimune's projects a change in the perception of botanical studies took place from mere textual studies before the Kyōhō era to investigations into *materia medica* on a large scale, which was remarkable for the time. One of the representatives of Edo herbalists is Tamura Ransui 田村藍水 (1718-1776) who was also the most successful in the cultivation of ginseng.[49]

Besides triggering a boom in Japan, the *Ben cao* also set new standards in China. According to Nappi, Li's text was the first book on materia medica to contain explanatory entries for the drugs, in which for example their proper names, method of processing, and their properties, were explained and described. Li stressed the importance of testing medicinal drugs and claimed to have personally consumed some remedies to check on particularly questionable qualities attributed to plants and animals, especially when he had gleaned these stories from hearsay or from "ancient texts". Nappi argues that this method of establishing authority is not only found in Li's compendium but also in many medical texts from as early as the Song period, which implies that the reader had more reason to trust medical knowledge if the author could claim to know the efficacy of a remedy by having experienced it firsthand.[50] We find a similar statement in Tsukamoto, when he emphasises that the compiler of *Fukyū ruihō* did not merely 'copy' parts of the *Ben cao* but evaluated their efficacy through

[46] Endo, 161.
[47] *Ibid*., 160.
[48] *Ibid*., 163.
[49] Ueda, 17-20. In Japan produced Korean ginseng was exported to China for the first time in the Tenmei period (1781-89); Endō, 163.
[50] Nappi, 34.

personal experience; and we again will encounter the same argument in the introduction of *Kōkei saikyūhō*.

3. Sources in *Kōkei saikyūhō*: a preliminary approach

The catalogues

In contrast to *Fukyū ruihō* which provides the reader with bibliographical information, there is no internal indication of what sources Motonori used when he compiled his text apart from two works he mentions at the end of his introduction. Yet some insight into the source material that Motonori might have used can be gleaned from the surviving catalogues of medical books that members of the Taki family possessed. There are at least five different catalogues dealing with medical books which were in possession of the Taki family, and two other related works. These are *Isshūdō kazō ishomoku* 聿修堂架蔵医書目, *Isshūdō kazōki* 聿修堂架蔵記, *Isshūdō zōsho mokuroku* 聿修堂蔵書目録, *Isshūdō zōshomoku* 聿修堂蔵書目[51], *Isshūdō zōisho mokuroku* 聿修堂蔵医書目録 (which is appended to *Isshūdō zōshomoku*), *Seijukan iseki bikō* 躋壽館医籍備考, and *Isekikō* 医籍考.

The first one, *Isshūdō kazō ishomoku*, is a two-volume handwritten catalogue of medical books belonging to the Taki family that were stored at the *Igakkan* before it burned down in a fire in 1807. It starts with the entry "winter, eleventh month of Kyōwa 2 [1802], property of Tanba Motoyasu" and was obviously copied by Motoyasu.[52] *Isshūdō kazōki* 聿修堂架蔵記 is a manuscript consisting of one volume that was appended to a copy of the *Isshūdō kazō ishomoku* made by the physician and Confucian philosopher Shibue Chūsai 渋江抽斎 (1805-1858).[53] The foreword and postface were written by Rekisō 櫟窓, a name used by Motoyasu. According to the foreword, Shibue Chūsai borrowed the first part of the book containing references on materia medica and classics of Chinese medicine from Kojima Hōso 小島宝素 (1797-1849)[54] in 1834 and copied it, making his own corrections.[55] *Isshūdō zōsho mokuroku* contains the remaining books of the first mentioned catalogue *Isshūdō kazō*

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[51] Also known under the titles *Isshūdō mokuroku* 聿修堂目録, *Isshūdō shomoku* 聿修堂書目, *Isshūdō shomokuroku* 聿修堂書目録, *Isshūdō tosho mokuroku* 聿修堂図書目録.
[52] Miki, 392; the catalogue is stored in the Fujikawa library of the Kyoto University, Fujikawa bunkō, i 177.
[53] Chūsai belonged to the Evidential School and was also a teacher at the Igakkan; *NJD*, 924.
[54] He was a Bakufu physician, who also hold various posts at the *Igakkan*. Acquainted with bibliographical work he revised and transcribed medical texts; the reconstruction of the in the Ninnaji stored *Newly Revised Materia Medica* that came to Japan in the Nara period, for example, is done by him, he however deceased being halfway through; *NJD*, 757.
[55] Miki, 394-5. When Miki was writing the book, he had no access to the appendix which was in possession of the historian Kōda Shigetomo (1873-1954), now it is digitalised and available at http://archive.wul.waseda.ac.jp/kosho/ya09/ya09_00909/ya09_00909.pdf (accessed 20.11.2012).

ishomoku after the fire of 1807. There is no editor's note or preface or postscript and the year of compilation is also unknown. According to Miki, it might be a record written by a Taki disciple.[56] The one-volume catalogue *Isshūdō zōshomoku* 聿修堂蔵書目[57] was compiled by Taki Mototsugu 多紀元胤 (1789-1827) and also contains a remark on the last page stating that it is a catalogue of books in the possession of the Taki family.[58] The one-volume manuscript *Isshūdō zōisho mokuroku*, which is appended to the *Isshūdō zōshomoku*, is a handwritten record by the disciple Watanabe Keisuke 渡辺奎輔 (1781-1832) dated 1811.[59] It also contains a list of book titles on a single sheet written by Taki Rankei 藍渓, another name for Motonori, and Keizan 桂山, another name for Motoyasu.[60] The 'notes' *Seijukan iseki bikō*, consisting of four volumes, were edited by the Bakufu physician Takashima Yūkei 高島祐啓 (1832-1881) and Okada Shōshun 岡田昌春 (1827-1897) and published in 1877. The bibliography lists in 139 sections all the medical books that survived "The Great Fire of Meguro gyōninsaka" (*Meguro gyōninsaka taika* 目黒行人坂大火) at the *Seijukan*.[61] *Isekikō* finally, is an unfinished study of medical books written by Taki Mototsugu. This catalogue is a valuable source for the study and identification of old Chinese, Japanese and presumably Korean medical books, some of which now are no longer extant.[62]

These catalogues not only make it possible to undertake a comparative study of the medical books the Taki family possessed but they also make an invaluable contribution to medical research in early modern Japan since they represent a rich source for the bibliographical study of medical texts that were circulating at that time. In addition, they give some indication of the Chinese and especially Korean impact upon Japanese medicine, as will become clear below.[63] Of these seven bibliographical sources, the first one, *Isshūdō kazō ishomoku*, is probably the most suitable catalogue on account of its chronological proximity for getting an idea of the source material Motonori possessed – not to mention the Bakufu library, which he had access to – and for checking possible reference sources for *Kōkei saikyūhō*. Since the catalogue was compiled shortly after the publication of *Kōkei saikyūhō*, it

[56] Miki, 395.
[57] Also known under the titles *Isshūdō mokuroku* 聿修堂目録, *Isshūdō shomoku* 聿修堂書目, *Isshūdō shomokuroku* 聿修堂書目録, *Isshūdō tosho mokuroku* 聿修堂図書目録.
[58] Fujikawa Bunko, i 176.
[59] He was a physician and Confucian scholar, who taught at the Igakkan; he belonged to the Evidential School and revised the Ishinpō; *NJD*, 2085.
[60] Miki, 396-7.
[61] Miki, 403-6; Fujikawa Bunko, se 44.
[62] There are two Chinese reprints of the catalogue under the Chinese title *Yi ji kao* from the years 1937 and 2007; see bibliography.
[63] See also Miki, 403-6.

most likely contains material that was used for the compilation of the text. Taki Motonori's son Motoyasu tells us in the one-page introduction to the catalogue that it essentially contains the medical books collected by members of his family from the time of his grandfather Mototaka to his own time. He also explains that its compilation was not an easy matter, on account of the repeatedly occurring blazes in recent decades that had threatened their library.[64] The catalogue contains a huge number of books dealing with medicine in the broadest sense beginning with collections on *materia medica* (*honzō* 本草), books on food, prescription books, texts on famine relief, Chinese classics of Medicine such as the *Yellow Emperor's Inner Canon* (黄帝内経) or *Cold Damage Disorders* in different editions, and other texts dealing with theoretical issues, but also Japanese 'classics' such as *Yamato honzō* by Kaibara Ekiken and works of other influential Japanese physicians of their time, and even books on general matters such as the "Newly-compiled Guide to Kamakura" (*Shinpen kamakurashi* 新編鎌倉志). Incidentally, the catalogue also contains a copy of *Fukyū ruihō* but there is no evidence of any books in Western languages.

Since the catalogue contains a number of medical texts that deal with emergency cases as does *Kōkei saikyūhō*, these texts need to be examined more closely as they might have been used as sources or models for Motonori's book. I thereby focus on those titles that contain the word 'emergency' (*kyūkyū* 救急 or *saikyū* 済救 or *kyūsai* 救済). There are in fact two such books, which turned out to be of Korean origin. These are "Simple Prescriptions for Emergency" (*Gugeup ihaebang* 救急易解方) and "Beneficial Prescriptions for Emergency" (*Gugeup yangbang* 救急良方). The first one is a book on emergencies written in Chinese and compiled by Yun Pilsang 尹弼商 (1427-1504), Cheong Misoo 鄭眉寿 (1456-1512), and Kim Heungsoo 金興壽 (data unknown), who were all well-known doctors in the Seongjong reign (1457-1495). The background of Kim Heungsoo is not entirely clear, but he seems to be the same person as the famous physician Kim Heungsoo 金興守 or one of his brothers. There are two known editions of this book; the first, which is kept in the Haenglim Seoweon Institute 杏林書院 in Seoul, is in movable-type imprint without preface or postscript since the first and last pages are missing. Judging from its appearance and style, Miki attributes its publication to around 1499. The second is a *Gunyang*-edition dating from 1523 and preserved in the Fujikawa library at Kyoto University. It was obviously in the possession of the Taki family, since the beginning of the book holds an impression of their seal.[65] The existing preface and

[64] *Isshūdō kazō ishomoku*, unpaginated.
[65] Miki, 63-4; Fujikawa Bunko, ki 60.

postface of the second edition reveal that the book was compiled by the above-mentioned authors in autumn 1498 together with a *hangul* transcription which is lacking in both editions. In the third month of the following year it was printed and distributed. It was compiled to fill the need for a more concise emergency book since the "Collection of prescriptions from home" (*Hyang'yak jipseongbang* 鄕藥集成方, 1433) and the "Classified collection of medicine and prescriptions" (*Euibang yuchwi* 医方類聚, 1477)[66] consisted of too many volumes, whereas another manual, the "Prescriptions for emergencies" (*Gugeup bang* 救急方) of the Sejo reign (1455-1468) fell short and contained mainly recipes that are not appropriate for emergencies. The "Simple prescriptions for emergencies" was meant to fill the gap.[67] The foreword to the copy in the Fujikawa library laments the sad state of health care for the common people, a theme common to both *Fukyū ruihō* and *Kōkei saikyūhō*. The table of contents is missing, as is the first page or pages of the text; the book however seems to begin with 'Wind stroke' 中風 since in the following pages remedies related to 'Wind stroke' were described. In total, seventy-six diseases were listed covering conditions similar to those included in *Fukyū ruihō* and *Kōkei saikyūhō*. There are no illustrations, and compared to *Kōkei saikyūhō* the explanations of symptoms and remedies are kept to a minimum. [68]

For the second emergency handbook *Beneficial Prescriptions for Emergency*, there exists a text that is attached to a copy of a Korean medical manual titled "Secret remedies for curing tumors/swellings" (*Jijong bibang* 治腫秘方), both of which were transcribed by Taki Motonori.[69] It consists of only four pages, lacking any foreword or table of contents but including an afterword explaining the contents. There is also a note in red ink stating that it had been transcribed by Motonori, and an additional note stating that the Korean wood-block edition from which it had been copied belonged to the family of Manase Shōrin 曲直瀬正琳 (1565-1611), and had been obtained and copied in 1785.[70] The manual lists prescriptions for diseases caused by pathogenic agents such as wind and cold, kinds of colic cramps, painful hips and legs, asthma, abdominal tumours, and so on, after a short explanation of the

[66]Both collections were also in possession of the Taki family as the *Isshūdō kazō ishomoku* reveals; according to Mayanagi, the independence of Korean medicine from China started in 1433 with the 85 volumes holding "Collection of prescriptions from home", which was compiled by Imperial order, therein also a book entitled "Our country's remedies" (鄕藥) appeared. The second collection, which was also compiled by imperial order, was printed only once in Joseon period Korea due to its enormous size of 266 volumes; see Mayanagi, http://webcache.googleusercontent.com/search?q=cache:2i1NQ805LGIJ:mayanagi.hum.ibaraki.ac.jp/paper01/MedJpKrVn.html+%E9%83%B7%E8%96%AC%E9%9B%86%E6%88%90%E6%96%B9&cd=5&hl=de&ct=clnk&gl=jp&client=firefox-a (accessed June 13th, 2012).

[67] Miki, 65.

[68] *Kukup Kanhaebang*, not paginated; Fujikawa bunkō, ki 60.

[69] Miki, 69; Fujikawa Bunko, chi 127 (for the Korean original), chi 13 (for the Japanese copy), the contents of the two books are identical.

[70] He was a disciple of Dōsan and became part of the family by marrying Dōsan's granddaughter; *KD* 13, 191.

symptoms.[71] There are no illustrations and since the text is extremely short, it can therefore hardly be considered to be particularly influential for the compilation of *Kōkei saikyūhō*. The manual should not to be confused with a Chinese work of the same title, *Ji jiu liang fang* 救急良方, a two-volume book compiled by Zhang Shiche of the Ming Dynasty and published in 1550. It was engraved and published together with *Zhong miao fang*, which was a reference source for the compilation of *Fukyū ruihō*.[72] It is divided into thirty-nine chapters covering conditions requiring immediate treatment beginning with various kinds of death, continuing with wind diseases, poisoning, headache, and so on. It closes with diseases concerning women and children. The selection of ailments bears some resemblance to *Kōkei saikyūhō*, but lacks any illustrations.[73]

It cannot be argued that there is a significant similarity between these two Korean manuals and *Kōkei saikyūhō*, and it is rather the Chinese version of "Beneficial Prescriptions for Emergency" that bears the most resemblance to Taki's manual. However, it is clear that in Korea in the fifteenth and sixteenth centuries there was something of a trend for popular manuals, and given the fact that the library of the Taki family was destroyed at least twice and therefore a lot of books were lost, it is worth considering that other Korean works on medicine might have had an impact on the compilation of *Kōkei saikyūhō*, even if they are not listed in the catalogues. Indeed, as Kornicki points out, Korean books were highly valued in Tokugawa Japan, and this applies in particular for medical works of Korean authorship. The frequent reprint of Korean texts is ample evidence that they were held in high regard.[74]

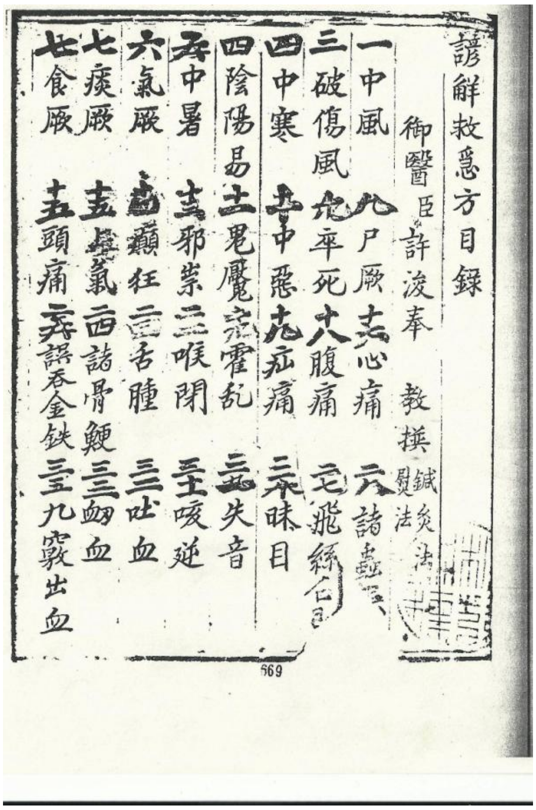
Korean initiatives for public welfare: The "Prescriptions for emergency in hangul" (*Eonhae gugeupbang* 諺解救急方) as an example

The manual "Prescriptions for emergencies" (*Gugeupbang* 救急方) Miki mentioned above in connection with the two Korean compilations of medical works, for example, deserves closer attention. The Korean compilation "Printed books of the eight provinces" (*Paldo jaekpan* 八道冊板) contains two entries for "Prescriptions for emergencies" which date from 1466, and there is also an entry in the "Annals of the Joseon dynasty" (*Wangjo sillok* 王朝実録, kept from 1413-1865) from the eleventh month of Sejong's reign (1427/8) mentioning that it had become necessary to select methods and medicinal drugs from their own country for the

[71] *Kukup yangbang*, not paginated; Fujikawa Bunko, chi 13; see also Miki, 79.
[72] See table 2.
[73] The text is contained in *Si ku quan shu cun mu cong shu, zi bu* 43 四庫全書存目叢書, 子部四三 (1995), 450-494, see also chapter five.
[74] Kornicki 2013, 71.

compilation of the book, because it was difficult to obtain drugs from China. The original edition is unfortunately lost, but there exists a version with a *hangul* translation under the title "Prescriptions for emergency in hangul" (*Eonhae gugeupbang* 諺解救急方). [75] This two-volume work is the outcome of an order by Sejo, the seventh king of the Joseon dynasty (r. 1455-68) and it was translated into *hangul* by the famous Korean physician Heo Jun. According to Miki, the book is the *hangul* version of the above-mentioned lost Korean "Prescriptions for Emergency" (*Gugeupbang* 救急方) which was compiled in the reign of Sejo. The compilation and publication of the *hangul* version came around one hundred years later in 1569. Miki assumes that Heo Jun probably did some corrections but left the original text as it was, and that therefore the extant *hangul* version can be seen as more or less identical to the original text of one hundred years earlier. [76] There are two editions of the book extant. One is in the possession of the Hosa Bunko in Nagoya, and the other is preserved in the Kyōu Library of the Takeda Science Foundation in Ōsaka. The book in the Hōsa Bunko is woodblock-printed and the cover has been restored. The foreword, afterword and colophon are missing. Each volume has a vermillion seal with the text "Inner store of the Owari province library", and a black seal with the inscription "Treasure of Sōjiji" among other seals and notes. The version in the Takeda Library appears to have come via China since it has a Chinese seal.[77] There also exists a reprint which is a revised version of the text dating from 1606 lacking any seals or references except for the publishing information on the last page stating that the text had been written by Heo Jun on royal command.[78] The reprint deals with seventy emergencies beginning with 'wind stroke' and follows in essentially the same order as *Kōkei saikyūhō*. In all copies, the *hangul* version is inserted between the paragraphs of the main text. All of them lack any illustrations, but the revised version has some explanations of the acupuncture points used in the text, of vernacular remedies, of the use of drugs soaked in alcohol, of the incompatibility of food combinations, and so on.

[75] Miki, 58.
[76] Miki, 92.
[77] *Ibid*., 91.
[78] Printed in *Eonhae doochang kyungheombang, Eonhae doochang jipyo, Eonhae taesan jipyo, Eonhae napyak jeungchibang, Eonhae kookupbang, Boorok byukyukshinbang* 언해 두창 경험방, 언해 두창 집요, 언해 태산 집요, 언해 납약 증치방, 언해 구급방, 부록 벽역 신방, 諺解痘瘡經驗方, 諺解痘瘡集要, 諺解胎産集要, 諺解臘藥症治方, 諺解 救急方, 附録辟疫神方, Seoul: Asea moonhwasa, 1973.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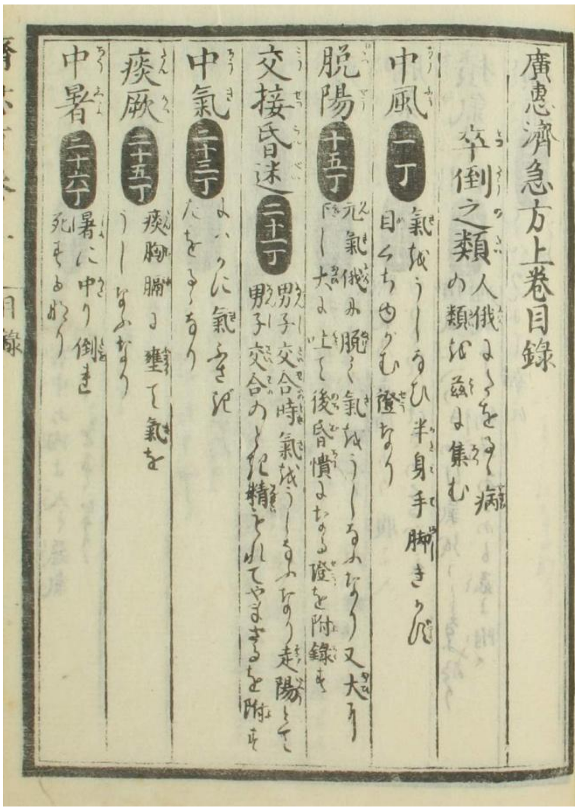
廣惠濟急方上卷目錄

Fig. 3. First page of contents in *Eonhae gugeupbang* Fig. 4. First page of contents in *Kōkei saikyūhō*

The similarity of the revised version to *Kōkei saikyūhō* supports the idea that Motonori may have used it at least as a guideline how to structure his own book.[79] A closer look at the extant editions of the Korean text further reveals that for the compilation of the Korean manual thirty-four Chinese and Korean medical sources are listed: the Chinese medical books were from the early Ming dynasty and before, and the Korean sources up to the reign of Sejong (r. 1318-1450).[80] These references are, however, not included in the revised edition. Some of the Korean sources can be found in *Seijukan iseki bikō*, the catalogue of Taki's medical institute before it became the Igakkan, and in *Isshūdō kazō ishomoku*.

Evidence of sources in *Kōkei saikyūhō*

It is striking that neither Asami nor Tsukamoto consider any Korean impact on *Kōkei saikyūhō*, let alone on Japanese medical manuals in general, and moreover assert that there is no mention of any reference material which Motonori drew upon for his compilation.[81] In fact, at first glance, we indeed find no information about the sources he used in the entire book besides one remark in his introduction and one in the foreword by Sano Noriyuki. There Noriyuki comments that once Motonori received the order from the Shogun Ieharu to write an

[79] See table I in the appendices for a direct comparison of the diseases.
[80] Miki, 90-2.
[81] See for example Tsukamoto 1991, 230.

emergency handbook for the people, "he searched for days and nights, and also in places far away, for all kinds of remedy books."[82] He then extracted strange recipes of the barbarians (*iban* 夷蠻) but also remedies that were transmitted among the common people, and tested their efficacy.[83] Motonori remarks similarly in his introduction that "I only selected those remedies which conformed to the established theories of the ancients, and I also picked out vernacular remedies that had not been discussed in China and non-Chinese countries but bear comparison with the *materia medica* of the standard books. Again and again, I proved the efficacy of all these drugs, and from these I selected those which can be used without difficulty in a patient's house. For this reason the recipes do not exceed two or three ingredients, which are easy to obtain when needed."[84] However, at the end of his introduction Motonori explains:

> For the recipes that are selected and applied in this edition, […] I have consulted the prescription books of other authors, and examined their similarities and differences; and in terms of those that are the most proven ones, I took those which are the best and most suitable for usage in a patient's house. Therefore, I will follow the example of formulae books like *Simple Prescriptions for Emergency* (*Jiu ji yi fang* 救急易方) and *Simple Examination of Life-threatening Symptom*s (*Wei zheng jian bian yan* 危證簡便驗) but will not append the sources of the recipes.[85]

What are these books Motonori mentioned at the end of his introduction and not known or regarded as unimportant by Japanese scholarship? *Jiu ji yi fang* is a one-volume booklet written by the Ming dynasty physician Zhao Jifu 趙季敷 (data unknown). A Korean edition of this work from 1484 exists, which was published in the province of Pyeongyang. It consists of emergency recipes for ailments such as stroke, headache, retention of excretion and urine, diseases of the eyes, painful ears, accidental swallowing of foreign matters like needles, and so on. It describes further resuscitation methods for different kinds of death such as by hanging, drowning, summer heat, curse, and snake bite. In total, it lists treatment methods for 150 cases, including twenty-five gynaecological and fifty-two paediatric cases.[86] Miki even assumes that *Jiu ji yi fang* could be identical with the lost "Prescriptions for Emergencies" (*Gugeubang* 救急方).[87] For Oba, *Jiu ji yi fang* came to Japan in 1638; it is therefore conceivable that it could have been used as a source for the compilation of *Kōkei saikyūhō*,

[82] *Kōkei saikyūhō*, Preface Sano Noriyuki, 2a.
[83] *Ibid*.
[84] *Ibid*., Introduction Taki, 4a-b.
[85] *Ibid*., 12b.
[86] Miki, 199-200.
[87] *Ibid*., 200.

although it is not mentioned in the catalogues of their library.[88] Moreover, it is likely to be identical with the work of the same name mentioned as a reference by the authors of *Fukyū ruihō*.[89]

The title of the second work Motonori cited seems to be the abbreviation of "Simple and Approved Prescriptions for the Immediate Help of Life-Threatening Symptoms" (*Ji jiu wei zheng jian bian yan* 急救危証簡便験方), a seventeenth-century work written by the Qing dynasty physician Hu Qizhong 胡其重 (data unknown). However, Mayanagi dates its import to Japan to the year 1856, but acknowledges that it could have reached Japan before the nineteenth century.[90] Supposed the abbreviated title in *Kōkei saikyūhō* is identical to the Chinese work, then it indeed must have found its way to Japan about one hundred years earlier.

In contrast to this are the findings of Tsukamoto, who presents a different result when he investigated the medical knowledge *Kōkei saikyūhō* contains. According to him, Motonori took whole passages from the aforementioned famine relief manual *Minkan bikōroku* 民間備荒録. He supports his assumptions by referring to the frequent usage of excremental remedies and copper sulphate in *Kōkei saikyūhō*, which according to him likely derives from *Minkan bikōroku*. It contains also a short section on rabies, unknown in Japan prior to the eighteenth century; therein Takebe wrote down his experiences of the 1762 epidemic. According to Tsukamoto, these treatment methods were also found in *Kōkei saikyūhō*.[91]

Minkan bikōroku represents another genre of 'emergency' book, and it can be classified as an example of manuals on famine relief (*kyūkōsho* 救荒書), which deals - as this genre of text suggests - with techniques to survive famines. In general, these manuals describe how to make provision against famine, how to eat food rations in the case of famine, and what kinds of food can be eaten. *Minkan bikōroku* is arranged in a similar way: the first part deals with methods of cultivating fruit and vegetables and ways of storing them in case of famine, and the second part covers information on the appropriate ways to detoxify roots, barks and leaves, and the way they have to be eaten to save the starving. From the text itself we learn that in 1755 in the northwest of Japan the weather was unusually cold from the fifth month onwards with continuous rain until the eighth month, of which the consequences were cold damages to the crop. The resulting famine that was witnessed and experienced by Takebe

[88]Oba, in Mayanagi 1992; Mayanagi corrected the date from 1704 to 1638 in the online version of his article, http://mayanagi.hum.ibaraki.ac.jp/materials/edoChimed.html#%81q%83L%81r (accessed May, 8th 2014).
[89] See table 2.1.
[90] Mayanagi 1992, 160.
[91] Tsukamoto 1991, 229-30. See also chapters five and six.

Seian, drove him to compile the manual within a month on the basis of Yu Ruwei's 愈如為 (data unknown) famine manual *Important Survey on Shortage Administration* (*Huang zheng yao lan* 荒政要覧) from the Ming dynasty and Xu Guangqi's 徐光啓 (1562–1633) *Compendium of Agricultural Administration* (*Nong zheng quan shu* 農政全書). In 1756, after he donated the book to his domain several hand-written copies were made, and finally in 1760 it was published.[92] He also consulted book projects of similar nature, in which Chinese source books stood as models for a Japanese adaption, such as Miyazaki Antei's 宮崎安貞 (1623-1697) "Compendium of Agriculture" (*Nōgyō zensho* 農業全書, 1697) or Kaibara Ekiken's *Yamato honzō*.[93]

Although Tsukamoto's claim seems to be a strained argument at first glance, the field of vernacular medicine and famine food are likely to share common features. Vernacular medicine in *Kōkei saikyūhō*, for example, not only suggests the use of vegetation in front of one's house or alongside the road as medicine but also includes all kinds of food in its recipes, a topic that will be discussed in chapter four. Therefore it may well be that it indeed shares common ground with the literature on famine.[94] To what extent *Minkan bikōroku* in fact acted as the model for *Kōkei saikyūhō* will be more closely examined in later chapters.

Conclusion

Although both *Fukyū ruihō* and *Kōkei saikyūhō* were designed for general readership, they differ in their ways of sharing information with regard to the source material. Yet one point in common is striking: the emphasis on first-hand experience, an argument the authors of both books share with the Chinese tradition of authority making. This approach turned out to be helpful in assessing and modifying the medical knowledge in Chinese texts such as the *Ben cao* to examine its content and make it adaptable to Japanese conditions. The quest for the medical sources contained in *Kōkei saikyūhō* has revealed two things. Firstly, it has become apparent that in pre-modern Japan not only Chinese but also Korean sources had a certain impact on Japanese medical writings, and that prior to the *jinsei* projects of Yoshimune and Ieharu and Sadanobu, in Korea of the fifteenth and sixteenth centuries similar endeavours has already been undertaken. Secondly, it seems that this literature on emergencies had at least a structural impact on *Kōkei saikyūhō*, while the content of *Kōkei saikyūhō* appears to be less dependent on Chinese source texts but is more likely to be responsive to the actual situation in

[92] Shirasugi, 144-50. Takebe was also a close friend of Sugita Genpaku, and well aquainted in Western medicine; *ibid*.
[93] *Ibid*., 153-8. See also chapter four.
[94] For the vernacular medicine used in *Kōkei saikyūhō*, see chapter four.

Japan at the end of the eighteenth century. This would support the actual practicability of the text as a real means to provide health care.

Chapter Three: Mapping disease

In their study of human excretions, hair, fingernails, and other 'products' as medicine, Sivin and Cooper commented that the most difficult methodological issue faced in the course of investigation into Chinese medicine has to do with the identification of Chinese disease entities.[1] This chapter deals with this central problem; that is, with the issue of identifying and defining disease entities in *Fukyū ruihō* and *Kōkei saikyūhō*. The results gained from this analysis will help to provide a picture of the ailments people had to deal with – assuming that the two manuals met the needs of the people at that time - and reveal the way these disease terms were transmitted from one cultural context to another and from expert to layman.

1. Diseases in *Fūkyū ruihō*

As the example of acute jaundice in the previous chapter made apparent, the text itself is written in a simple Japanese with no extensive use of characters; for disease and drug names, in most cases, both the Sino-Japanese and Japanese readings are given followed by an easy-to-understand explanation in *hiragana* with the use of some characters that are mostly provided with reading aids. The short introduction provides the reader with an account of the authors' objectives regarding the selection of formulae. The authors explained that when they decided to make a selection of useful remedies for the different diseases, the most important criterion was that the ingredients could easily be found in daily life. Therefore, they restricted the ingredients in each formula to a maximum of four drugs, and also limited the single herb remedies where there were many for one condition. Also the doses in the recipes according to the Old School (*kohō* 古方) of medicine have been changed or 'modernized' to comply with an easy use for their contemporaries. They also make it clear which term they used for the names of diseases and drugs, that is to say, those disease and drug names of which the Chinese name is commonly heard in the ordinary Japanese language are noted in their Chinese names, and those for which the vernacular Japanese name is more familiar are noted in their Japanese names. Drawings were provided only for those herbs, trees, birds, beasts, shellfish, and insects in the recipes that are not remembered in daily life and those which are generally known but are ambiguous. There are no illustrations for plants and animals that are usually recognised, and there is also no entry for Chinese ingredients that do not exist in Japan. The illustrations follow the preparation methods for rehmannia root, dried ginger root, pinellia

[1] Cooper and Sivin, 213.

rhizome, *kōji*[2], malted rice, ume fruit, gleditisia, pine resin, bamboo sap, and refined sugars. In most cases, the authors explain, the usage of the drugs and formulae differ depending on whether the disease appeared to be serious or benign as noted in each case. They conclude with the warning that a doctor's opinion should be consulted depending on the severity of the illness and the physical condition of the patient when applying the recipes.[3]

What kinds of diseases are to be found in this first official self-help book? In the first two volumes, the authors list all diseases or disorders of the various body parts according to the principle *a capite ad calcem*. Diseases of the head, for example, cover the whole range of ailments and illnesses beginning with headache and its variations from suddenly occurring pains in the head, aching head as if it were about to burst and vertigo, and continues with dandruff, favus, hair loss, sores or abscesses on the head and so on, to end with hair and neck problems. The list continues with diseases of the face followed by disorders of the eyes, mouth, lips, tongue, teeth, throat, and closes the first volume with diseases of the nose and ears. The second volume comprises disorders of the trunk and extremities, disorders of the skin that are to be understood in a more neurological sense which are expressed as painful sensations or unpleasant physical feelings as if an insect were creeping on one's body, and finally, disorders of the "front pubic region" and the "rear part of the pubic region" (i.e. scrotum and vulva). From the end of the second volume on, the authors change their focus and embark on a description of diseases in the tradition of Chinese medicine starting with epidemic diseases such as "externally contracted febrile diseases" to continue with diseases caused by pathogenic agents such as heat, cold or phlegm to different kinds of dysentery. The fourth volume continues with the enumeration or extraction of diseases from Chinese medical classics ranging from jaundice and epilepsy to different signs accompanying a disease such as various forms of sweating, and diseases related to blood such as spitting of blood, bloody stool and bloody nose. They finish with a description of methods for reviving patients with conditions that could lead to death such as exposure to cold or drowning. Volume five presents a detailed list of all sorts of rashes, boils, abscesses, cuts, bruises, eczema, burns and scalds summarised in a section called abscesses. Childhood and gynaecological disorders are the topic of the sixth volume. The diseases range from ailments like irregular menses and complications before and after giving birth to acute conditions in infants.[4] This can be summarised briefly as follows:

[2] A preparation obtained by growing a kind of mold (usually Aspergillus oryzae on boiled rice, barley, soybeans or other grains), used as a starter for the fermentation in sake and soy-sauce production, see also *KD* 5, 361.
[3] *Fukyō ruihō* I, 10b.
[4] For a complete list of the diseases contained in *Fukyū ruihō*, see table II in the appendices.

Table 3.1: Summary of diseases in *Fukyū ruihō*

Volume	**Topic**
1.	Diseases of the head, eyes, mouth, lips, tongue, teeth, throat, nose, ears
2.	disorders of the trunk and extremities, sensual disorders, disorders of the scrotum and vulva, externally contracted febrile diseases
3.	Diseases caused by pathogenic agents such as heat, cold or phlegm to different kinds of dysentery
4.	Jaundice, epilepsy, symptoms such as sweating, diseases related to blood such as spitting of blood, bloody stool and nose, death by cold or drowning
5.	Rashes, boils, abscesses, cuts, bruises, eczema, burns and scalds
6.	Childhood and gynaecological disorders

In order to discuss the contents of *Fukyū ruihō* it is necessary first to acknowledge the problem of a translation of medical terms. So as to produce translations which are comprehensible within the Western context on one side, and at the same time take into account the peculiarities of *Fukyū ruihō* not as a scholarly textbook discussing medical terms but as a manual designed for the layman I have made a table aimed at reflecting the structure of the contents.[5]

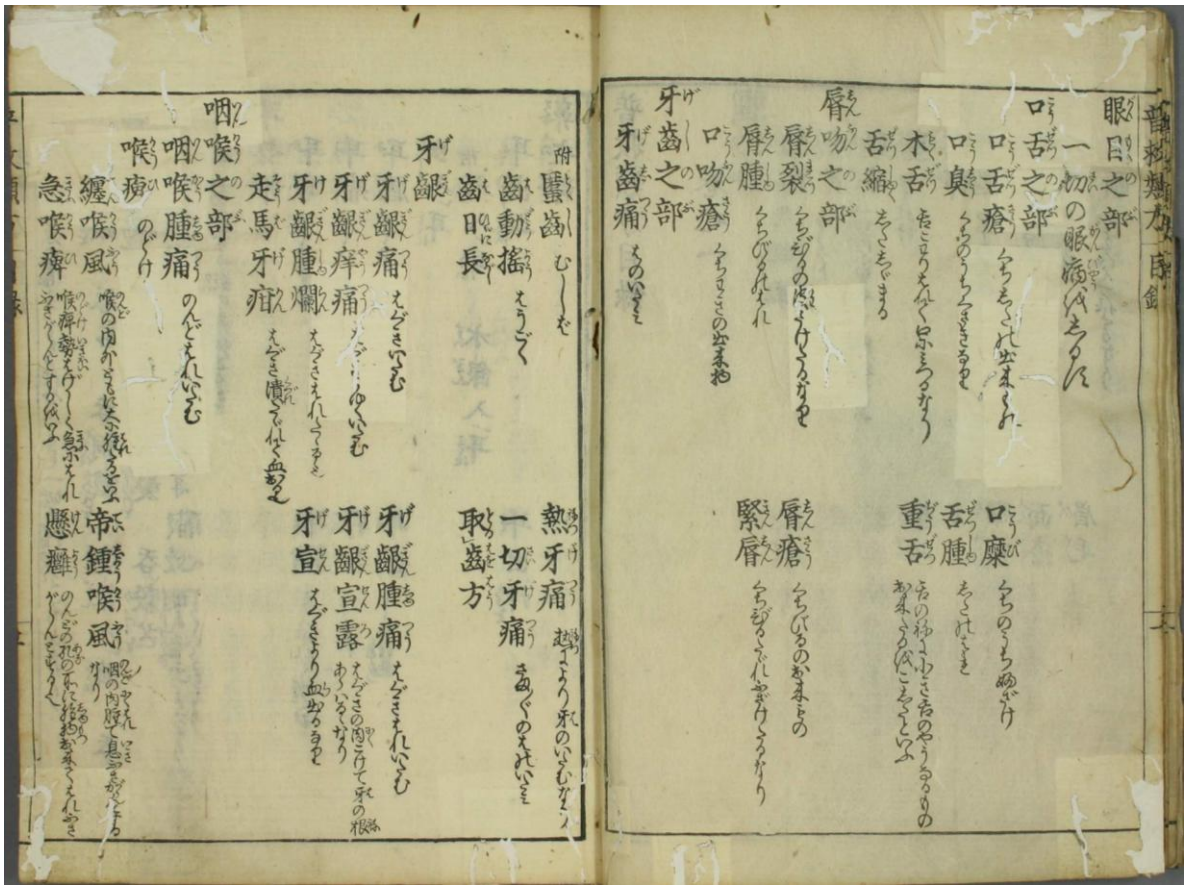

Fig. 5. *Fukyū ruihō* 1, 1b-2a.

The table is divided into six columns. The first column displays the translation of the disease name into English, which would for the fourth line from the right in the above illustration be

[5] See table II in the appendices.

"Abscess on mouth or tongue" followed by the characters 口舌瘡 in the second column, the Sino-Japanese pronounciation *kōzetsusō* in the third column, and the Japanese equivalent – if one exists – in the fourth column. A mark in the fifth column labelled 'Explanation' indicates whether the ailment is more or less briefly explained, and a mark in the last column labelled 'Addendum', if an ailment is supplemented by one or two related indications. I have made no distinction between short or long explanations of a disease. Short explanations usually render Sino-Japanese expressions into Japanese readings, which is in the above example *kuchi shita no dekimono*. For the translation of the terms, I therefore orientated myself by these explanations, since they express the authors' understanding of these terms. An example of the difficulty of identifying and transferring these terms into Western disease concepts is the translation of the Chinese character 瘡 (*sō*, *kasa*) into English. It stands for any kind of a local skin lesion, and is frequently appended to the character for the affected body part such as 唇瘡 for an eruption, pustule, boil or abscess on the lips.[6] *Kasa* has two meanings: firstly, a boil, abscess, pustule, rash or swelling on the skin, and also the scab of a wound. The second meaning is an alternative name for syphilis.[7] The character itself appeared as early as the Heian period in the Japanese dictionary of Chinese characters called *Wamyō ruijūshō* 和名類聚抄 (931-8) compiled by Minamoto no Shitagō 源順 (911-983). There it states: "The Tang reading (*toin* 唐韻) defines *kasa* (Chinese reading *sō*, Japanese reading *kasa*) as a sore (*kizu* 痍); a sore (Chinese reading *i*, Japanese reading *kisu*) is called *kasa*".[8] The term thus refers in this context to any kind of skin lesion, which of course can also occur when affected by syphilis.

Since I take into consideration the authors' descriptions of the respective ailments, the translation I give for the same disease term in Japanese sometimes differs between *Fukyū ruihō* and *Kōkei saikyūhō*. This, for example, applies to the term 臍風 *saifū* (Ch. *qi feng*), literally translated as "umbilical wind". In *Fukyū ruihō*, it is described as a disease that happens when pathogenic agents like wind and humidity harm the navel at the moment when the cord falls off, and the blisters that appear in the mouth of the baby and prevent it from drinking. It becomes life-threatening if not instantly cured.[9] By translating the term as "inable to drink owing to blisters in the mouth" I take the authors' explanation into account. By contrast, in *Kōkei saikyūhō* the same explanation is found as in contemporary dictionaries on

[6] See table II, No. 25.
[7] *NKD* 2, 1215.
[8] *Koji ruien, Hōgibu*, 1219. On the history of *Wamyō ruijūshō* and other dictionaries of the Heian period, see Karow 1951; Bailey 1960.
[9] *Fukyū ruihō* 1, contents, 8b.

traditional Chinese medicine, in which the term indicates an infection that happens within four to seven days after birth and mostly is caused by an unclean cut of the umbilical cord. The disease itself is characterised by clenched jaws, arched-back rigidity, and a peculiar grimace. [10] In *Kōkei saikyūhō*, I therefore followed the literal translation as 'umbilical wind'.[11] In general, elaborate translations of disease terms are avoided in *Fukyū ruihō* but sometimes become necessary to distinguish them from similar diseases. In some cases, when the disease term corresponds to the biomedical definition and the equivalent colloquial expression is rather obscure or not to be found, the biomedical term is used instead. Yet the translation into biomedical terms can be misleading. This is the case with *kakuran* 霍乱, literally translated as "sudden turmoil", which at times is rendered as cholera. [12] In contemporary Japanese dictionaries, it stands for a generic term of various diseases caused by strong heat and is associated as a typical summer disease, although it might be accompanied by severe vomiting and diarrhoea.[13] In dictionaries prior to *Fukyū ruihō* , the symptoms' focus seems to be more on diarrhoea and vomiting as the entry in *Yamai no sōshi* 病草紙 shows; there *kakuran* is explained as an almost unbearable disease manifested by abdominal pain accompanied by vomiting water and diarrhoea.[14] In a later influential medical work, the "Medical lectures of Sōkeitei" (*Sōkeitei iji shōgen* 叢桂亭医事小言), which was printed in 1820 and comprises the oral instructions of Hara Nan'yō 原南陽 (1752-1820) on medical theories and treatment methods, *kakuran* is, as in *Fukyū ruihō*, described as a disease occurring when affected by strong heat which leads to the above mentioned symptoms.

Disease names also reflect changes in the use of the characters over time. This is true, for example, of the character *ri* 痢 used in the context of dysentery. The term 痢 itself is a general term for diarrhoea caused by various factors. The original character for diarrhoea was 利, but according to Kosoto the Later Generation School changed it to 痢. The *Ishinpō*, which cites pre-Tang soures divided this disease into different forms, and Hayashi and Niwa's classification is identical to that of the *Ishinpō* with the only difference being that they use the changed character 痢 instead.[15]

What does the analysis of the contents of Fukyū ruihō finally reveal? First of all, it corroborates the above stated intention of the authors; to note the Chinese name of the disease

[10] *CEWO*, 1423; Wiseman, 636.
[11] See table I.
[12] *CEWO*, 1891; Wiseman, 61.
[13] *NKD* 2, 1158.
[14] It is compiled between the end of Heian period (794-1185) and beginning of Kamakura period (1185-1333), and also known under the name *Ishitsu sōshi* 異疾草紙; Kosoto, 386.
[15] *KD* 14, 580; see also table II.

that are commonly known and used in everyday Japanese, and to note the Japanese equivalent of disease names when the vernacular Japanese name is more familiar. In other words, this discriminatory usage reveals which Chinese medical terms were already known at the beginning of the eighteenth century and did not need any further explanation. These make up only about seven percent of all disease names listed in the book; further, those for which the vernacular Japanese names are used make up about eighteen percent of the disease terms listed in *Fukyū ruihō*. The rest, which covers seventy-five percent of the terms, are briefly or more elaborately explained depending on their context. Those disease names lacking any explanations are, for example, *shōkan* 傷寒, *kan* 疳, and *senki* 疝気. *Shōkan*, literally translated as "injured by cold" stood for or was used as a term for a whole range of febrile conditions of various causes.[16] The dictionary "Collected explanations of disease names" (*Byōmei ikai* 病名彙解, 1686) written by the physician Ashikawa Keishū 蘆川桂洲 (data unknown, seventeenth century) gives a much more detailed explanation of the term.[17] He explains the term as a febrile disease that happens when in winter time the body is affected by the cold. The poison of the cold hides in the bones and skin and changes into mild fever in spring to change again in summer into a high temperature.[18] The translation-defying character *kan* is generally explained as a sickness that occurs mainly in children and is characterised by convulsions and oversensitivity, caused by the excessive intake of sweets.[19] In the *Byōmei ikai* we learn that the cause of this disease lies in the excessive consumption of meat, fat and sweet food. Its popular name is *kan no mushi* 疳の虫, an expression that refers to a worm being the reason for the child's unhealthy state.[20] This worm causes the child to cry at night and suffer from indigestion, abdominal distension and emaciation.[21] The same explanations are also found in the *Ishinpō* and Hara's *Sōkeitei iji shōgen*.[22] *Senki* 疝気 will be explained further below in connection with *Kōkei saikyūhō*.

2. Diseases in *Kōkei Saikyūhō*

Motonori's introduction also contains a description and explanation of the style and language used in *Kōkei saikyūhō*. Originally, he explains, the handbook was written using only Chinese characters. He and his son, however, made a revision by applying *kana* to enable the people in

[16] *NKD* 5,1165.
[17] The *Byōmei ikai* consists of totally 8 booklets listing 1822 entries. It was the first Japanese dictionary specialized on diseases written in *wabun*; Kosoto, 330.
[18] *Hōgibu*, 1365.
[19] *NKD* 3, 299. The character is composed by the radical for disease 疒 that covers the character for the adjective sweet 甘.
[20] *Hōgibu*, 1513-1515.
[21] Suzuki A., 23; similar to the definitions in Chinese medical dictionaries; see *CEWO*, 1434, Wiseman, 236.
[22] *Hōgibu*, loc. cit.

a sick person's house to read and understand the meaning of the text. This was necessary because the reader of the book in general, they assumed, would not be able to read books such as the Confucian classics, and in order to be prepared in case of emergency, they should read the text carefully beforehand by getting its essentials, otherwise they would make many unnecessary mistakes.[23] Like the authors of *Fukyū ruihō*, Motonori emphasizes in his introduction that he listed those disease names the people are most familiar with, but unlike them, he goes one step further by explaining the different views on disease terms made by various medical schools in his time. He says that all authors were aware of the fact that the 'old' names and those in use currently are different and that they "possess a proper and an incorrect name"; in his opinion however the 'old' name is mostly correct, which he tries to illustrate by an example: the Later Generation School calls the symptoms of an unconscious condition after a person suddenly collapsed "sudden hit by wind" (*sotchūbū* 卒中風), in old books like the *Su wen*, however, it is called "collapse" (*gekifu* 撃仆).[24] The same school also defines a condition in which the "seven emotions" (*shichijō* 七情) get stuck as "hit by *qi*" (*chūki* 中気), whereas it is noted as "*qi* recession" (*kiketsu* 気厥) in the *Su wen.*[25] It is however wrong, Motonori argues, to use the character 'to hit' for a disease that developed due to an excess of the internal seven emotions. To enable the reader to follow his argument he explains not only what is to be understood by the seven emotions[26], but he even remarks that the term *chūki* appeared for the first time in the book *Ben shi fang*[27] of Xu Shuwei and then explains the meaning of the character *chū* 中 as to be 'hit' (*ataru*) by an external evil matter as in the terms "hit by wind" (*chūfū* 中風) or "hit by poison" (*chūdoku* 中毒). However, he states that he will not discuss the right or wrong denominations of diseases in this book but follow the terms that are long established and understood by the people.[28]

Unlike the authors of *Fukū ruihō* who omit any explanations of the causes and symptoms of each disease, Motonori stresses the importance of observing and determining the symptoms. He uses analogies from nature to explain the causes and symptoms of a person's disease. The causes thus correlate to the roots of a tree or plant, and the symptoms form its shape which is manifested in the twigs or leaves. Although the disease is inside the body, if

[23] *Kōkei saikyūhō I, 2a-b.*
[24] *Huang di nei jing su wen* 28, 4; Unschuld translates this term as „collapse resulting from stroke"; Unschuld and Tessenow, *Huang Di Nei Jing su wen* 1, 476. See also annotation of the translators in *Huang di nei jing su wen* 1, 474.
[25] *Su wen* 37; Unschuld, 567-573.
[26] In Chinese medicine, these are joy, right, anger, anxiety, thought, sorrow, and fear; *Kōkei saikyūhō* I, introduction, 4b.
[27] See chapter two.
[28] *Kōkei saikyūhō* I, introduction, 4b-5a.

the symptoms do not appear on the surface, it would not be possible to understand the character of the disease. One can hardly identify trees and plants when they are without branches and leaves in autumn and winter. Just as they all become discernible depending on their growth in spring and summer, disease also become distinguishable when their symptoms appear on the outside of the body. Therefore, Motonori explains, a range of symptoms with explanations are given at the beginning of each entry.[29]

Kōkei saikūhō is structured in a different way. The main criterion used by Motonori to group the diseases in the first book is that of collapse in its different appearances (*sottō no rui* 卒倒之類). Some of them are listed in *Fukyū ruihō* as well such as epilepsy or palsy, but Motonori expands the list by adding "agony when descending a well" (*nyūsei monbō* 入井悶冒), "becoming unconscious during intercourse" (*kōsetsu konbei* 交接昏迷), and also a kind of heart attack that is not noted in a dictionary of classical Chinese medicine. In the second volume, the list is continued with "other signs of sudden violence" (*sotsubō shoshō* 卒暴諸證) like vomiting blood, nose bleeding, suddenly loss of hearing, an abruptly blocked throat, bloody stool and anal prolapse, followed by different sorts of external wounds or injuries including cuts, bites from animals and humans, bruises and burns, and accidents like the protrusion of the eyeballs due to the carrying of heavy weight. In the third volume, Motonori expands the list of different manners of death that are found in *Fukyū ruihō* by adding suffocation by smoke, starvation, death by hanging, and lightning strike. He continues with an enumeration of accidents by which things or insects inadvertently get into the eyes, ears, nose and other orifices. This section, in which different metals are swallowed accidentally or stuck in the throat or flesh, covers numerous cases. The most significant number of more than sixty cases, however, is listed under the section "forms of intoxication". There, a detailed list of drug poisoning, from aconite and arsenic intoxication to ivy poisoning, food poisoning mainly from vegetables and crops, oil and alcohol intoxications, to poisoning by meat, fish, mussels, fowl, and wild animals is given. Like *Fukyū ruihō* the volume concludes with a section on women's ailments like irregular menses, complications before and after birth, and on illnesses concerning newborns and infants.[30]

[29] *Ibid*., 3a-b.
[30] For the list of all diseases in *Kōkei saikyūhō*, see table I in the appendices.

Table 2.2.: Summary of the diseases in *Kōkei saikyūhō*

Volume	**Topic**
1	Different types of sudden collapse
2	Other violent symptoms, external wounds or injuries
3	Different kinds of death, accidental invasion of things or animals into orifices such as mouth, ear etc, intoxications and poisonings, diseases of women and children

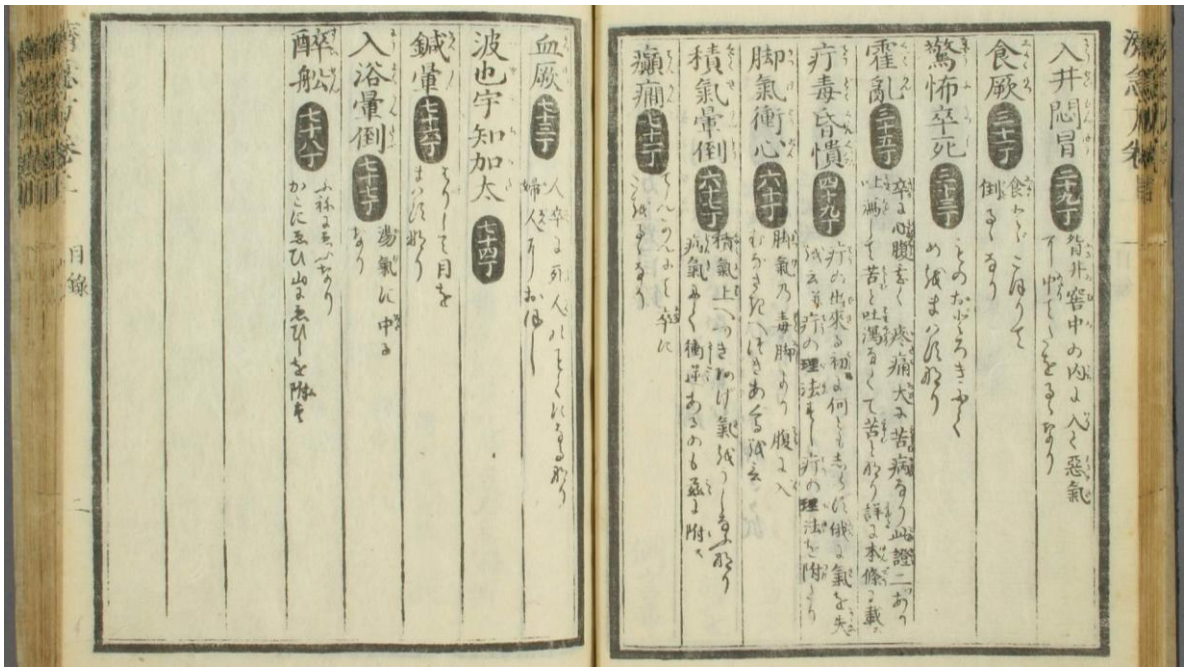

Fig. 6. *Kōkei saikyūhō* I, contents, 1b-2a

As the above picture shows, all disease names are written in Chinese characters and provided with reading aids followed by page references and a detailed dictionary-like explanation in hiragana interspersed by some glossed characters. In general, disease terms that derive from classical Chinese medical texts have only a Sino-Japanese pronunciation, whereas most ailments, accidents or other unexpected life-threatening events are rendered in Japanese. Therefore, as in the case of the table made for *Fukyū ruihō*, the first column of the table gives the translation of the term, the second displays the characters, and the third the pronunciation, either Sino-Japanese or Japanese depending on the term.[31] There is no column for Japanese equivalent names or extra column for explanation; instead, columns dealing with the number of recipes and their ingredients, which are covered in the next chapter, follow. For example, the first expression from the right is translated as "agony when descending a well", the characters therefore are 入井悶冒 and pronounced as *nyūsei monbō*, followed by the page reference and an explanation which says "hit by bad air and collapse when entering the cellar of an old well".

[31] See table I in the appendices.

When Taki wrote in his introduction that he would use the disease names the people are most familiar with even if they are not the correct terms, he obviously referred to terms derived from the Chinese medical tradition. It is striking that there is only one disease name here which derives from popular source, namely *hayauchikata* 波也宇知加太 , the second term on the page following the above illustration, and for which he used *manyōgana* to render it into Chinese characters. It is also the only term for which no additional explanation follows. This disease term is not found in *Wamyō ruijushō* or *Byōmei ikai* but appears in connection with the sudden death of people in popular literary works such as *zappai* 雑俳 and *hanashibon* 咄本.[32] On the relevant pages in *Kōkei saikyūhō*, its symptoms are explained as an initial pain in shoulder and back, which suddenly becomes unbearable; the person further shows symptoms such as a pale complexion, blackish lips and cold extremities. If nobody rushes to his aid, the person will die.[33] Since the characters for this expression only stand for its pronunciation, and the symptoms closely resemble that of a heart attack, I have translated the expression as such. Furthermore, Motonori's definition of *kakuran* follows another interpretation compared to that of the authors of Fukyū ruihō. In order to take in account the different interpretation I have translated *kakuran* as "sudden turmoil"[34] and not as "heatstroke" as in *Fūkyū ruihō*, where it is explained as a typical summer disease caused by strong heat. The different translation of the term here also takes into account the fact that he makes no references to the actual cause of the disease; he confines himself to the description of its symptoms depending on its type.[35] The same can be applied to "pursed mouth" (*satsukō* 撮口) where he follows – like *Fūkyū ruihō* - the explanation found in Chinese medical sources. However, in accordance with classical Chinese sources, he allocates manifestations like small inflated blisters that are to be found on the upper part of the newborn's gums to *satsukō*, whereas *Fūkyū ruihō* ascribes them to *saifū*.[36] The different interpretation is likely to reflect the different medical standards or literacy of the authors or it reveals the different medical traditions they feel they belonged to, a topic that will be discussed further below. All in all, the disease terms in *Kōkei saikyūhō* follow closely the literal translation or the conventions found in dictionaries on traditional Chinese medicine to take into account the different

[32] *Zappa* relates to a playful literature style that originates from *haiku*, and *hanashibon* is a genre of books characterised by funny stories; Lewin, 358-9.
[33] *Kōkei saikyūhō* I, 74a.
[34] Wiseman, 587.
[35] He distinguishes two types of *kakuran*: the 'damp' type with symptoms like diarrhoea and vomiting, and the 'dry' type without these symptoms; *Kōkei saikyūhō* I, 35a.
[36] *Ibid. III*, 82a.

approach of the manual and Motonori's literary and medical background which differs from that of the authors of *Fukyū ruihō*.

The two manuals have different thematic priorities, as the lists of the diseases in them reveal. *Fukyū ruihō* covers a broader range of diseases, while *Kōkei saikyūhō*, in turn, focuses on serious and unexpected situations that require immediate treatment as the different forms of 'accidents' and intoxications suggest; that is, it is conceptualized as a manual for emergency cases. Unlike *Fukyū ruihō*, which dedicates a whole volume on rashes, abscesses, boils, and furuncles, it pays no attention to skin diseases unless they are life-threatening as in the case of "obscure toxic swelling" (*mumyō shudoku* 無名腫毒). The greatest resemblance is to be found in the chapters on women and children. The most distinctive feature between the two manuals is the lack of popular disease terms in *Kōkei saikyūhō* apart from the solitary exception mentioned above. In fact, *Kōkei saikyūhō* has a greater resemblance to the Chinese and Korean emergency manuals discussed in the previous chapter than to *Fukyū ruihō*. Why, then, did Motonori refrain from incorporating popular disease terms such as *shōkan*, *senki*, or *kan*?

In order to tackle this question and to get a general idea about the ailments which the populace of Tokugawa Japan seem to have been prone to suffer from, I would like to present the outcome of an investigation done by Tatsukawa. He posed a similar question when he analysed popular prose literature, especially the "Ocean of stories" (*Tankai* 譚海, 1795) written by Tsumura Masayasu (ca. 1730-1806) and "Earmuff" (*Mimibukuro* 耳袋, 1814) from Negishi Yasumori 根岸鎮衛 (1737-1815), as well as satirical poetry (*senryū*): He wanted to find out what kind of diseases the people suffered from at that time. His findings are as follows:[37]

Table 3.3: Diseases and their frequency in popular literature

-	Eye diseases (28)	-	***Senki*** (25)	-	Smallpox (22)
-	Food poisoning (21)	-	Toothache (19)	-	Influenza (18)
-	Syphilis (18)	-	Haemorrhoids (17)	-	*Shaku* (17)
-	Edema (14)	-	Burns (13)	-	Gonorrhea (12)
-	Diarrhea (9)	-	Impotence (9)	-	Cerebral apoplexy (8)
-	Abdominal pain (8)[38]				

[37] Tatsukawa 1974, 46. For reasons of convenience, I here adopted his translation of disease terms.
[38] Not to be confused with *senki*, which can also roughly be translated as 'abdominal pain'.

His results show the frequency with which these disease terms appeared in the literature surveyed, and reveal that *senki* ranks second behind the more general notion of eye diseases in his summary. In the following, I will show how this disease is presented in these two manuals.

3. The disease *senki* as a case study

Before I delve into the analysis of the manuals, and in order to get an idea of what kind of ailments the term *senki* implies in current medicine, I will start with the contemporary biomedical explanation. The term, on the whole, encompasses any of various diseases characterized by severe pain or swelling of the abdomen or scrotum. This could be inguinal hernia, inflammation of the testes, hydrocele, urinary calculus or other obstructions that lead to difficulties in urination, and constipation.[39]

Since this term was already well known among the population in the seventeenth and eighteenth centuries as Tatsukawa's study has revealed, the question arises how this disease was explained in Japanese dictionaries prior to the manuals. In fact, *senki* is already mentioned in *Wamyō ruijūshō*. There it is explained as another term for *shiratami* 之良美 or *atabara* 阿太波良, a condition of acute abdominal pain. The *Iroha jiruishō* 伊呂波字類抄, a twelfth-century Japanese dictionary of Chinese characters containing a collection of words in everyday use, likewise defines it as sudden pain in the abdomen using the same characters and pronunciation. About five hundred years later, Ashikawa Keishū gave a much more detailed explanation of the term in his dictionary *Byōmei ikai*. He says that *senki* is another name for *shimokaze* 下風.[40] Then, he explains the character *sen* 疝; akin to a mountain that represents the accumulation of soil, *sen* has to be regarded as the accumulation of pathogenic agents. He further refers to the Chinese medical sources, namely, *Gu kong lung* 骨空論 [part of the 'Plain Questions'], the *Treatise of the Causes of All Diseases* (*Zhu bing yuan hou lun* 諸病源候論), and *Introduction to Medicine* (*Yi xue ru men* 医学入門), in which *senki* is explained, informing the reader that these Chinese sources are only a selection of a huge number of reference literature. At the end of the entry he lists seven different types of *senki* as categorized in *Zhu bing yuan hou lun*, and mentions another categorisation made by Zhang Cong Zheng 張従正 (c. 1156-1228), who divided the disease into similar sub-categories.[41]

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[39] *Chūgoku kanpō igo jiten*, 292; *CEWO*, 1081; Suzuki A, 9.

[40] The first time *senki* was called *shimokaze* is mentioned in *Kagakushū* 下学集, a dictionary compiled in 1444 by an unknown author; Shirasugi, 67.

[41] *Byōmei ikai* 7, page numbering illegible; http://archive.wul.waseda.ac.jp/kosho/ya09/ya09_00581/ya09_00581_0007/ya09_00581_0007_p0021.jpg (accessed July, 15th 2014).

Since *Fukyū ruihō* refrains from giving any explanation or Japanese equivalent name for *senki*, we have to assume that people at the beginning of the eighteenth century had a clear idea of its meaning. In the main text, it starts with recipes for "all *senki* in which the belly is dropped and tight or painful" and continues with recipes for two types of *senki* - "abdominal pain due to cold" (*kansen* 寒疝) and "abdominal pain due to swelling of the scrotum" (*taisen* たい疝). The entry finishes with medicine for major symptoms in *senki*, e.g. swollen scrotum, rumbling and gurgling belly.[42] However, in *Kōkei saikyūhō* the term *senki* has disappeared, and instead we find an entry for "Sudden Pain in Chest and Abdomen*"* (*shinfuku sottsū* 心腹卒痛). There the author describes various types of abdominal pain differentiated according to their causes. These are "pain due to worms" (蟲痛), "pain due to cold" (寒痛), "pain due to heat" (熱痛), "pain due to blood stasis" (瘀血痛), "pain due to phlegm" (痰痛), "pain due to food" (食痛), and "true chest pain" (真心痛).[43]

What do these findings tell us? Firstly, the analysis reveals that in *Fukyū ruihō* the many different types of the term *senki* as contained in classical Chinese dictionaries shrunk to about two, namely *kansen* and *taisen*. This confirms the statement in a Japanese dictionary, which says that in Chinese medicine the term is divided into seven categories while in Japan it mainly refers to the first category *kansen* and is manifested as painful swelling of the scrotum that radiates to the lower abdomen. The dictionary further makes it clear that *senki* should not be confused with the term *senki subaku* 疝気寸白, which refers to abdominal pain caused by worms and causes the same symptoms as abdominal pain or swelling of the scrotum.[44] May we therefore assume that *senki* became an obsolete term that was no longer used about seventy years later and therefore no longer used in *Kōkei saikyūhō*? On the contrary, as to Shirasugi, among Japanese physicians it was considered as a disease peculiar to the Japanese, a belief that was also shared by Engelbert Kämpfer (1651-1716) who gave testimony that it was a disease endemic to Japan, which almost all Japanese had experience of suffering from.[45] What is more, the Old School of medicine even tried to reform the concepts of Chinese medicine in accordance with Japanese experience, and therefore developed a new concept of *senki* that was based on experience.[46] Yet there was no clear consciousness of the term either among physicians or among ordinary people; they for example confused *senki* which *subaku* 寸白, a disease that was also well-known in ancient China and which related to

[42] *Fukyū ruihō* 4-1, 23b-24a.
[43] *Kōkei saikyūhō* II, 32a-36b.
[44] *KD* 8, 393.
[45] Shirasugi, 63.
[46] *Ibid*., 64, 67.

worms. This confusion is indeed already perceived in the writings of influencial physicians such as Tashiro Sanki 田代三喜 (1465-1537) from the sixteenth century or in Hozumi Hoan's *Kyūmin myōyaku*.[47] Moreover, Shirasugi has discovered that the term *subaku* continued to appear in medical works in connection with *senki*, especially in works of the Old School.[48]

Can we therefore conclude that Motonori was quite aware of the apparent confusion about the meaning of the term caused by the scholars of the Old School, and therefore refrained from using his term? The authors of *Fukyū ruihō* were apparently applying the principles of this school as their introduction reveals. Also Motonori brought up in his introduction the diverse approaches of different medical schools - namely the Old School and the Later Generation School – when he criticised their correct or wrong application of disease names, and we have also learned from the *Tokugawa jikki* that Taki Motonori's father Mototaka was influenced by the so-called Evidential School. These schools were shaping the medical landscape in the eighteenth century, and since they were crucial in the making and transmission of medical knowledge, their doctrines and representatives shall be examined more closely.

4. Medical schools and their doctrines

There are roughly three schools that influenced the medical landscape in early modern Japan. These were the Later Generation School (*kōseika* 後世家 or *goseiha* 後世派), the Old School (*koihō* 古医方 or *koiha* 古医派), and the Evidential School or Eclectic School (*setchūgaku* 折衷学). The beginning of the Later Generation School dates back to the sixteenth century when the physician Tashiro Sanki 田代三喜 (1465-1537) came back to Japan after his twelve-year stay in China. He brought back with him medical books and methods from famous Chinese physicians of the Jin (1115-1234) and Yuan dynasties (1271-1368) such as Li Gao 李杲 (1180-1251) and Zhu Zhengheng 朱震亨 (1281-1358). The medicine of this time combined the Five Phases Theory (*gokyōsetsu* 五行説) and the cosmological doctrine of circulation and influence of oscillating *qi* (*unkiron* 運気論). This doctrine was systematized by Sanki's disciple Manase Dōsan 曲直瀬道三 (1507-1595), and Dōsan's son, Gensaku 玄朔 (1549-1632). From the seventeenth century onwards, however, the critics of his medicine became more and more adamant in their view that it had a strong tendency towards speculative elements. The school adapted this name to discriminate themselves from the

[47] Shirasugi, 64; for *Kyūmin myōyaku*, see *ibid*., 36b.
[48] Shirasugi, *loc.cit*.

practices of pre-Song medicine, and was attacked precisely for its "modernism" by the Old School which relied on the primacy of the ancient medical classics.[49]

The Old School was a medical school that emerged in the middle period of the Tokugawa era as a reaction to the speculative elements in the Later Generation School and rejected the Later Generation School's doctrines; instead, it valued highly the *Treatise on Cold Damage Disorders* (*Shan han lun* 傷寒論) compiled by the Han-dynasty physician Zhang Zhongjing 張仲景 (150-219). This new school advanced methods that were supported by empirical evidence, in contrast to the *Later Generation School* that expounded the doctrines of Jin and Yuan medicine, and since their representatives performed methods or formulae of the "old medicine", they called themselves the *Old Medical School*.[50] The first to promulgate this school was Nagoya Gen'i 名古屋玄医 (1628-1696) in line with Itō Jinsai's advocacy of "Old Learning". [51] Gen'i himself was influenced by a late-Ming book titled *Treatise esteeming Cold Damage Disorders* (*Shan han shang lun* 傷寒尚論) and an early-Qing book titled *Principle and Prohibition for Physicians* (*Yi men fa lu* 医門法律) but his writings were still strongly tinged with Jin-Yuan medicine. Under Gotō Ryōzan 後藤良山 (1659-1733) the school was properly established, but in contrast to Gen'i he did not consider Zhang Zhongjing the foremost authority; instead he extracted what he considered to be the correct meanings of the *Yellow Emperor's Inner Classic* (*Huang di nei jing* 黄帝内経) and the *Canon of Problems* (*Nan jing* 難経), discarded inconsistent parts, and also favoured books by famous Chinese physicians such as Sun Simiao and Ge Hong whose practical medicine did not always accord with the doctrines in the *Treaties on Cold Damage Disorders*. Ryōzan also liked to use moxibustion, bear gallbladder, red pepper, and also hot springs as treatments, and he used materials from daily life; the fact that he integrated more and more elements from vernacular medicine might also be seen as the influence of Ge Hong. Nevertheless, the subsequent Old School became a model in terms of avoiding speculation and relying on tested methods in accordance with the spirit of Zhang Zhongjing. Ryōzan's disciple Kagawa Shūtoku (Shūan) 香川修徳 (1683-1755) followed in his footsteps, being even more rigorous by rejecting all medical classics that followed *The Yellow Emperor Inner Classic*, including the *Treatise on Cold Damages*, which he regarded as the best medical book but also considered to contain too many speculative elements. As a result, the position he adopted was

[49] Sugimoto and Swain, 279.
[50] *KD* 5, 268.
[51] On Nagoya Gen'I, see Endo Jirō and Nakamura Teruko, "Nagoya Gen'i no igaku taikei: Gōseiha kara koiha e no tenkai 名古屋玄医の医学体系：後世派から古方派への展開", *Journal of History of Science* 43 (229): 13-21.

that of establishing a form of medicine that was based on empirical evidence, proclaiming that they had to create their own past (自我作古).[52]

Yamawaki Tōyō 山脇東洋 (1706-62), another disciple of Ryōzan, is also regarded as one of the leading figures of the Old School, but he was in opposition to Shūtoku's circle in several respects. They did not differ concerning the importance of empirical proof, but his decision to "follow the old path using contemporary techniques" can be construed as a criticism of Shūtoku's motto. His "old path" was Zhang Zhongjing's *Treatise on Cold Damages*, and within this path he considered that one is allowed to be creative, and the methods applied – of which he created many - did not necessarily have to be confined to the *Treatise*. He was also the one who conducted the first dissection of a human body in Japan in 1754.[53]

When we finally come to the times of Taki Motonori and Tanuma Okitsugu, Tōyō's disciples active at that time were Nagatomi Dokushūan 永富独嘯庵 (1732-1766) and Kuriyama Kōan 栗山孝庵 (1728-91). Besides establishing the three methods of sweating, vomiting, and loose bowels that are considered to be the essential components of the Old School, Dokushūan showed a vivid interest in Western medicine and spent some time in Nagasaki to hear the lessons of Yoshio Kōgyū 吉雄耕牛 (1724-1800), a Dutch interpreter and scholar of Western medicine. He also had an impact on the next generation of physicians such as Hanaoka Seishū 華岡青洲 (1760-1835), a surgeon and pioneer of anaesthesia in Japan, and Ōtsuki Gentaku 大槻玄沢 (1757-1827), a proponent of Western learning. Kōan performed the second dissection after Tōyō and was the first to undertake the dissection of a female body. While giving Zhang Zhungjing's Treatise top priority, Toyō's followers constituted the medical school that had the strongest inclination towards Western learning.[54]

Yoshimasa Tōdō 吉益東洞 (1702-73) also took the *Treatise* as the foremost authority but established an independent school. He claimed the entries regarding the Five Phases Theory were not from the pen of Zhang Zhungjing and attributed them to later generations of writers. He thus reorganised the prescriptions in the *Treatise* and in the *Essential Discussions of Prescriptions in the Golden Casket* (*Jin gui yao lue fang lun* 金匱要略方論) and then published a book called "Collected and Classified prescriptions" (*Ruijuhō* 類聚方). Furthermore, he criticised severely the theories of herbalists that were published following the books of the alchemist Tao Hongjing 陶弘景 (456-536), made a detailed examination of the

[52] *KD*, loc.cit.
[53] *Ibid*.
[54] *Ibid*.

prescriptions in the *Treatise* and even approved them by empirical evidence. According to Tōdō, every disease is caused by one poisonous agent, and the way to heal this poison is by another poison, which consequently means that all medicine is poison. Rather than attributing importance to empirical proof, he refused to search for possible causes: for him, it was not justifiable to diagnose a disease as a pulmonary abscess when perceiving purulent sputum; purulent sputum is an undeniable fact, but to give it the name of a disease remains speculative unless one opens the chest to see the abscess. He had a great impact on other medical scholars.[55]

In China, the Evidential School emerged from the second half of the seventeenth century onwards, and had its peak from the beginning of the eighteenth to the beginning of the nineteenth centuries. Based on the classics of Confucianism, this School emphasised the study and revision of texts on Confucianism that were perceived as basic and therefore correct or genuine. Special efforts were put into the correct interpretation of the classic Confucian writings, because they recorded the path of the sages which was revealed by profound studies. In Japan, the Evidential School was more scattered and did not form one powerful school as it did in China; there were scholars who split with Neo-Confucianism, which aimed at a more rational and secular form of Confucianism rejecting mystical elements of Daoism and Buddhism, and focussed on commentaries of ancient authors, or researchers who did not devote themselves exclusively to Neo-Confucianism but made decisions on what seemed best (*setchū*) within debates on the transmission and teachings of Confucius.[56]

The discourses of the Evidential School had an enormous impact on medical studies and the first to propose the new eclectic doctrine was Mochizuki San'ei, who was a contemporary of Motonori's father, Taki Motokata. Motoyasu in particular applied the study of historical evidence (*kōshō no gaku*) to medicine in accordance with the Confucian teachings of Inoue Kinga 井上金峨 (1732-84) and Ōta Kinjō 大田錦城 (1765-1825).[57] In Motokata's time, the Old School dominated the medical world, but the physicians and herbalists Mochizuki San'ei and Asai Tonan 浅井図南 (1706-1782), and their successors Motokata and Yamada Tonan 山田図南 (1749-87), started to blame all the schools, and especially the Old School, on the ground that their teachings were too dogmatic and their treatment methods too invasive. Inoue Kinga is seen as the first to promulgate the eclectic doctrine. He carefully chose commentaries on Confucian classics from the Han and Tang dynasties he considered the most suitable, and picked out texts from the Song and Ming

[55] *Ibid*.
[56] *KD* 5, 386-7; Fujikawa 1941, 368.
[57] Fujikawa 1941, 369.

dynasties that explained the meanings of Confucian terms, in order to work out a compromise between various theories and interpretations. Kinga also taught temporarily at Motokata's medical academy *Seijukan* spreading his eclectic thought among the physicians. Subsequently, Yamamoto Hokuzan 山本北山 (1749-87), Kameda Bōsai 亀田鵬斎 (1752-1826), Ōta Kinjō and others, who all attended lectures on Confucianism at the *Seijukan*, established the Evidential School, which was later also known as the Eclectic School.[58] They applied the methods of textual criticism to many of the medical classics. In particular, Motoyasu wrote several commentaries on *Simple Questions*, *Divine Pivot*, and *Treatise on Cold Damage Disorder*s, among others. The *Igakkan* was instrumental in making the Eclectic School of medicine the predominant authority throughout Japan. The main criticism against the Eclectic School and indirectly the *Igakkan* was that they misjudged Western medicine and were unable to adapt to Western medicine during the modernisation process in the nineteenth century.[59] Hattori even argues that the medicine performed by the Evidential School carried the flavour of ignorance and regression instead of a science based on experiment due to the fact that it gave more weight to historical sources (*kōshō*) rather than actual research.[60] A concrete example of Motonori's text-critical studies can be seen in his introduction to *Kōkei saikyūhō*, in which he explains in detail the meanings of disease terms, and how these terms were defined by various schools.[61]

Conclusion

The impact of the Evidential School is well reflected in *Kōkei saikyūhō*, in which Motonori as its main representative applied the basic principles of this school, which are based upon a text-critical approach towards disease and treatment. The omission of popular medical terms – even when originally deriving from classical sources – suggests that Motonori was indeed aware of the ambiguity of these terms. In the case of *senki* we find an example of how he found an alternative way to address this issue by incorporating an ambiguous disease term into the manual without mentioning its name. He instead classifies the term into different types by loosely following the classification made in Chinese classics on medicine. Here the main contextual difference between the two manuals becomes apparent. The uncritical adoption of *senki* and other popular disease names in *Fukyū ruihō* allows the layman to make easy use of the manual, but since its authors did not take into account the different associations the term evokes not only in the layman but also in the expert they contributed to

[58] Fujikawa, 433-4.
[59] Fujikawa, 438; Sugimoto & Swain, 376.
[60] Hattori, 13-4.
[61] See chapter one.

the overall confusion about disease terms. We therefore can conclude that the educational role of *Kōkei saikyūhō* to establish clear medical standards for the populace, which means in the case of *senki* to abandon a term that originally derived from classical sources and became blurred through the process of popularization, for the sake of a more general but less ambiguous expression was at least as important as to give medical information for self-help. Yet self-help also implies the ability to understand and apply the suggested medicines in the manual, that is, to find or have available the medicines recommended in the text, a topic we will address in the next chapter.

Chapter Four: Educating the people: on *materia medica* and herbal knowledge

In this chapter I will turn my focus on the educational aspect of *Kōkei saikyūhō* in order to reveal how Motonori managed to impart the necessary knowledge that enables the reader to perform health care. The objective expressed in both *Tokugawa Jikki* and *Kōkei saikyūhō* was to undertake primary health care by the means of a manual for all. The implication therefore is that *Kōkei saikyūhō* would offer information about suitable and reasonably-priced medicines for the user. Besides the acquisition of basic medical knowledge which enables one to discriminate diseases according to their symptoms, it was considered equally important for the user to have an understanding of the basic medical tools that made healing possible. In order to understand to what extent Taki's book meets these requirements in terms of the affordability, availability and knowledge of medicines, I will analyse the manual with regard to the choice of medicines and the herbal knowledge that it presents. In order to gain an understanding of the problems related to herbal knowledge in the eighteenth century, I will begin by presenting an outline of the historical development of herbal medicine in Japan.

1. The impact of horticulture, medicinal gardens and pharmacies on knowledge construction

According to Sōda, a significant contribution to the dissemination and domestic self-sufficiency in medicines, especially in the rural community, was Miyazaki Antei's *Nōgyō zensho*. Although he based his work on the aforementioned Chinese manual on agriculture *Nong zheng quan shu*, Miyazaki adapted the horticultural knowledge contained in this book to the Japanese environment. Unlike the Chinese original and previous books on cultivation which had dealt with farming from the viewpoint of agricultural administration, Miyazaki placed his emphasis on cash-crop agriculture. In his work, two chapters are devoted to the cultivation of medicinal plants as an economic strategy to enable the rural community to be less dependent on crop yields.[1] This suggests that *Nōgyō zensho* played an important role in disseminating botanical knowledge by contributing to the widespread cultivation of herbal medicines in domestic gardens. Therefore, it can be concluded that it was an important precursor that allowed popular medical manuals in the following century to build upon the knowledge that it had disseminated. Its impact on horticulture and health care will become

[1] Sōda 1984, 84; 87.

apparent in the second part of this chapter, when the herbal medicines recommended in *Kōkei saikyūhō* will be analysed in more detail.

Apart from the study of the *Ben cao,* another landmark in the development of herbal knowledge was the establishment of medicinal gardens. It is known from historical sources such as the "Records of the Sunpu Government" (*Sunpu seijiroku* 駿府政事録) that the first shogun, Tokugawa Ieyasu (r. 1603-5), was interested in the re-establishment of herbal gardens with a view to facilitating access to medicines, and even more importantly, with a view to studying their efficacy and to learning to discriminate between original and fake medicines. By re-modelling the medical system of the Taihō period (701-4), in particular the Bureau of Medicine (*ten'yakuryō* 典薬寮) one of his main objectives was to suppress the circulation of fake medicines. Despite this, it was not until the times of shogun Tsunayoshi that these gardens became more than mere ornamental exhibition grounds. At this time, rare and exotic plants that appeared in herbal books were cultivated and became a objects of great interest and value of observation similar to seventeenth century Europe, where the cultivation of tulips triggered a tulip mania. Yet the circulation of useless substances masquerading as medicines still remained a huge problem and prompted the following shogun, Ienobu 家宣 (r. 1709-12), to issue an edict for all provinces proclaiming that poisonous and fake medicines were forbidden.[2]

During this time, the study of botany in terms of textual studies flourished, but the methods for observing, collecting and cultivating plants remained unsatisfactory. This changed in the Kyōhō era with Yoshimune's reforms. The plant collector Matsui Shigeyasu 松井重康 (dates unknown), for example, commented in the foreword to "The Records of Herb Collectors" (*Saiyakushi ki* 採薬使記, 1758)[3] as follows:

> It is indeed an immense blessing that the government has extended its reach to the ordinary people to help them in their sufferings. Presently, all physicians do not trust Japanese products but only esteem Chinese medicines; for curing diseases, however, our people cannot do anything but rely on medicines growing in our country, and even if those of humble origin know about the efficacy of Chinese products, they cannot be helped and have to die, either because the medicine is too expensive or because the ship from China is delayed. Freedom from hunger does not only imply that enough food is available [but also that everyone has access to it]. Isn't it for that reason that the agents for collecting herbs were dispatched?[4]

[2] Ueda, 12-6.
[3] Not to be confused with *Shoshū saiyakuki*, the first 'medical' book promoted by the Tokugawa Bakufu, see chapter one.
[4] Ueda, 16.

The co-author of this manual was another of Yoshimune's herb collectors, Abe Tomonoshin 阿部友之進 (1650-1753), and according to Ueda, it was he who developed methods for the study of botany based on experiments and practical training.[5] Sōda similarly links the development of botanical studies to the emergence of a new form of scholarship known as "Practical learning" (*jitsugaku* 実学) that promotes study based upon experience, objectivity and evidence, and at the same time paved the way for a domestic market in medicines.[6] Key figures in the development of herbal studies at that time were Matsuoka Jōan, who has already been mentioned in connection with the *Ben cao*, and Kaibara Ekiken, in whose *Yamato honzō* Soda sees the principles of *jitsugaku* realised.[7] In order to suppress the circulation of fake drugs and to identify and verify native plants and, later on, medicines imported from China and the West as well, Yoshimune set up a Japanese medicines vetting committee (*wayaku aratame kaisho* 和薬改会所) in 1722.[8] It became an institution that regulated the distribution of medicinal drugs at that time, and was closely linked with the professionalization of pharmacies, which started in the late seventeenth century.

Several factors were crucial for the development of the pharmacies: Besides the advancement in botany and horticulture that was supported by successive bakufu projects, the formation of guilds became a driving force in the provision of health care. They emerged from the "Ten wholesale groups" (*Togumi toiya* 十組問屋), which were established in 1694 in Edo and from which also the group of pharmacies developed in 1715. In that year, the wholesales association of the pharmacies in the district of Honchō in Edo obtained the official permission to form a guild. This means that the drug wholesalers were officially recognised, and it also implies that they obtained the exclusive right of monopoly in the medical market. The members of the guild amounted to twenty-five people at that time, which changed with the gradual growth of the guild. Former Honchō guild members set up branches in the district of Ōtenma-chō, and - although subordinated to the Honchō guild - officially gained recognition in 1729. In order to obtain special trading rights, the guilds had to swear loyalty to the Bakufu and make a financial payment. Since the guild of pharmacies obtained the right to examine the quality of drugs (*ryōhi kanbetsu* 良否鑑別), they attained considerable influence upon the distribution of goods.[9] In the early days, however, the pharmacies were viewed with

[5] *Ibid*., 18.
[6] Sōda 1984, 84. It was not as new as Sōda considers it, for the term was already known in China from the Song dynasty onwards; *KD* 6, 874.
[7] *Ibid*., 87.
[8] Kasaya, 175.
[9] Yoshioka 1994, 49-55.

suspicion. The Confucian physician Kurokawa Dōyū 黒川道祐 (1623-1691), for example, notes in his "Topograpy of Yamashiro" (*Yōshū fushi* 雍州府志, 1686):

> In our country, ordinary medicines that have not yet undergone the process of cutting and chopping are called 'crude medicines' (*kigusuri* 木薬). Recently, the owners of pharmacies (*yakuten* 薬店) have been discriminating between genuine medicines and fake, fine and rough, and process them by cutting and sieving them, and sell them upon request. Originally, the processing of medicines was confined to the physician, but now these medicines fall easily into the hands of quacks. In China, medicines of this kind are called 'prepared medicines' (*seiyaku* 成薬); nowadays, you can find them here and there in shops called 'shops for prepared medicine' (*seiyakuya* 成薬屋). Also lately, in the cities, shops called 'tiger-house' (*toraya* 虎屋)[10] or 'wisteria house' (*fujiya* 藤屋) have been making various kinds of pills and powders and selling them, which is quite convenient for the common people.[11]

Dōyū's comments highlight a shift in the sphere of competence from one profession to another: what had been an integral part of a physician's profession was increasingly becoming the business of a merchant, and on the other hand, the broader accessibility of medicine also brought with it the danger of misuse, namely from those who claimed to be a doctor for the purpose of wealth and fame. The pharmacists, however, did not see themselves as mere sellers of all kinds of medicines; they perceived themselves as technical experts and they also developed a sense of ethical conduct. One of them was Endō Genri, a merchant in Kyoto who started a successful family business of making medicine in the second half of the seventeenth century. [12] His scientific skills in identifying and preparing medicines are also documented in the foreword to his manual "Discrimination of problematic herbs" (*Honzō bengi* 本草弁疑, 1681), a book on *materia medica* written for therapists in easy-to-understand Japanese.[13] Likewise, in the supplement to the "Record of new pharmaceutical preparations" (*Yakushū shinseizai ki* 薬種新製剤記, 1710) Okunishi Takatomo 奥西尭倫 (dates unknown) stressed that people like Endō did not want to be considered merely as sellers of medicines but also as experts in medicines:

> If we want to succeed in life by doing our work skilfully, we first have to read carefully through the books on *materia medica*, inspect the dried medicines at the market place and at home, and pick out the fine from the coarse ones. Thereafter, we have to observe the shape of the wild plants and trees, and plant medicinal herbs in our gardens in order to learn how to distinguish them from similar ones. After that, we have to verify the proper ones, and when processing the medicines, we must not make mistakes

[10] Originally a confectionery shop in Kyoto, *NKD* 8/49/b.
[11] *Yōshū fushi*, 171; see also Sōda 1984, 87-8.
[12] Genri's biographical details are unknown; he was also called Dewa no Jō 出羽掾 and was the owner of a pharmacy in Kyoto; Kosoto, 355.
[13] *Honzō bengi*, foreword, 1b. It also contains a foreword by Kurokawa Dōyū.

> in the ways in which the medicines have to be processed in detail. Next, the medicines must not be dirty, and we must be careful not to argue and bargain with the clients. [...]. We have to fix the price for each medicine, and as a matter of principle we do not make any difference whether the buyer is a friend or not, and we also do not regulate the prices up and down in order to generate a large profit but instead devote ourselves to fair prices. Servants and children should be admonished not to be careless in these matters, and our descendants in general should follow the family code.[14]

We do not have any numbers of how many pharmacies existed in Japan in the Edo period, but we can extract information from directories and shopping guides, which contain lists of where one can buy various goods. One of these guide books is the "Shopping guide of Edo" (*Edo kaimono hitori annai* 江戸買物独案内).

Fig. 7. *Edo kaimono hitori annai* from 1824[15]

The Edo guide was illustrated by the famous ukiyoe-painter Katsushika Hokusai 葛飾北斎 (1760-1849) and printed in 1818 by Nakagawa honzandō 中川芳山堂, a publishing house in Osaka. The Japanese poet and fiction writer Ōta Nanpo 大田南畝 (1749-1823) wrote the foreword saying that Edo had become such a big city that one no longer knew where to find what kind of shop, and thus a booklet like this had become necessary.[16] The guide consists of three volumes and contains many entries in which pharmacies advertised their pharmaceutical products. Yoshioka examined the advertisements for proprietary medicine and found that they covered about twenty-one percent of all the products listed in the guidebook.[17] Yet we should not forget that the medicines displayed in the guide represent only a small proportion of the pharmaceutical products available to the population in Edo, and the actual number of

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[14] *Yakushū shinseizaiki fuyaku bengi* 薬種新製剤記附薬弁疑, supplement of Yakushu shinseizaiki, 5 vols; in Sōda 1984, 88. This pharmacopoeia was written by Okunishi Takatomo or Jihee 治兵衛), he wrote the foreword in 1684, and it was published in 1710. The *materia medica* is arranged according to the Iroha system. The author describes comprehensively the preparation methods and the ways how to determine authenticity and quality of the drugs. He also attached the Japanese names for these drugs and informed the reader where to look up the medicines in the *Ben cao*; Kosoto, 377.

[15] See http://archive.wul.waseda.ac.jp/kosho/bunko10/bunko10_06650/ (accessed May, 20th 2014).

[16] *Edo kaimono hitori annai*, foreword; see also Yoshioka 1994, 66.

[17] Yoshioka, *loc. cit*.

proprietary medicines was probably much higher. As a result, Yoshioka estimates that in total more 1,500 different kinds of proprietary medicines circulated in the entire Edo-period.[18]

A similar guide, the "Shopping and merchant guide" (*Shōnin kaimono hitori annai* 商人買物独案内), was compiled for the Osaka region. It was published by the same publisher as the *Edo kaimono hitori annai*, namely Nakagawa honzandō.

Fig. 8. *Shōnin kaimono hitori annai* from 1824

The *Shōnin kaimono hitori annai* lists about 200 pharmacies and 241 proprietary medicines.[19] In Osaka, these were referred to differently than in Edo; instead of "medicines to sell" (baiyaku 売薬) as they were known in Edo, they were described as "compound medicines" (aigusuri 合い薬) referring to their contents, which is characterised by the mixture of several ingredients.[20]

Yet the pharmacies were not the only places where medicines were made. The making and selling of pills, pastes and decoctions was not restricted to a certain class or profession but included the whole of society. Temples and shrines, famous physician families, pharmacies and street stall vendors all specialised in the production of medicinal goods which became their trademarks.[21] In addition, some members of the Bakufu were actively engaged in the production of medicinal goods. As mentioned in the first chapter, from the *Tokugawa Jikki* we learned that Hayashi Ryōi, a physician from Kii and a close confidant of Yoshimune, produced home remedies such as *hankontan*.[22] Originating in China and introduced to Japan in the Muromachi period (1392-1573), *Hankontan* became one of the most famous proprietary medicines of Toyama prefecture.[23] Likewise, a passage in the above-mentioned *Yōshū fushi*

[18] *Ibid*., 67.
[19] The figures differ according to the source; for example, the exhibition catalogue of the Osaka Museum of History 大阪歴史博物館 counts 180 pharmacies, whereas Yoshioka gives a total of 207; Yoshioka 1994, 68; see also http://www.mus-his.city.osaka.jp/news/2012/kusuriya.html (accessed May, 19th 2014).
[20] Yoshioka, *loc. cit.*
[21] *Ibid*., 61.
[22] *Tokugawa jikki*, *KT* 46, 288.
[23] Sōda 1981, 48-52; Yoshioka 1989, Appendix 46-7.

informs the reader about the Taki family's involvement in the production of dental medicines. Therein, Dōyō firstly informs the reader that members of the Taki family previously held high court ranks such as the Head of the Bureau of Medicine (*ten'yaku no kami* 典薬頭), and were versed in curing all kinds of ailments but became later specialists in oral and dental medicines.[24] Here, Dōyū seems to refer to Motonori's ancestor Tanba no Kaneyasu 丹波兼康 (dates unknown, Muromachi period) who was the first to specialise in oral and dental medicine and whose treatment methods were later passed down as 'Kaneyasu-Style'.[25] However, there is no evidence so far that shows that the Taki family was engaged in the production of medicine, but since it was not unusual at that time for Bakufu physicians to both make medicines and to sell them, we have to consider the question of whether Motonori might have used *Kōkei saikyūhō* as a platform for advertising his family's recipes.[26] An examination of the *materia medica* in the manual will reveal whether and to what extent Motonori relied on proprietary medicines, but prior to this, I will examine how he provides the reader with the herbal knowledge necessary for self-help.

2. Teaching the basics of herbal medicine

Motonori admits in his introduction that most people have no knowledge of medicinal plants and trees, let alone the ability to compare their varieties in shape and form. To solve this problem, he explains that he has added illustrations that portray their form in the three seasons of spring, summer and autumn along with information about their characteristics. In addition, the soil differs depending on location; it may be meagre or fertile, mountainous or hilly, wet or dry. Since plants vary greatly in shape and colour depending on the place where they grow, Motonori acknowledges that it is impossible to determine their definitive appearance. He explains that this is why the plants he copied in his book are based on those cultivated in the house gardens of Edo or grown in places nearby, and that as they are likely to differ from plants in other parts of the country, such as in the Kansai area or in the north and the south of Japan, they should be carefully and closely examined, preferably in advance with the help of an expert in the most difficult cases.[27] He is quite sensitive of the fact that medicinal plants differ in shape according to the climate and, cognizant of the variety of vegetation in Japan, he tries to list as many different remedies as possible.[28] In connection with the general lack of herbal knowledge a major problem for all users of medicines, professionals and amateurs

[24] *Yōshū fushi*, 170.
[25] *NJD*, 1209.
[26] Yoshioka presents a list of which medical house, temple or pharmacies produced what kind of medicines; Yoshioka 1994, 61.
[27] *Kōkei saikyūhō*, introduction, 7a-b.
[28] *Ibid*.

alike, was the wide circulation of false medicines as referred to in earlier passages cited. How did Motonori tackle this problem?

The handling of fakes: the examples of bear gallbladder and toad

In the text, there is only one passage in which Motonori explicitly refers to the problem of fake medicines: it concerns bear gallbladder (*kuma no i* or *yūtan* 熊の胆) which usually appears as a medicine in the form of a flat, dried product that resembled an aubergine, and is well known among the general population. Depending on the season, the colour and quality could differ considerably. In contrast to the black colour it has in winter, it is amber-coloured in summer and has a much better quality due to the food taken at that time of the year. Bear gallbladder is valued for its omnipotent power in gastric and intestinal disorders. It is also commonly prescribed as a single medicine for symptoms such as high temperature, loss of consciousness, febrile convulsions, corneal opacity and eye inflammations, and severe pain. In the manual it is recommended for disorders such as Fainting Due to Accumulating *Qi*, in cases of Sudden Pain in the Ear or Sudden Pain Due to Worms and in Acute Infantile Convulsion.[29]

Highly appreciated as a medicine and equally expensive, the gallbladder was prone to adulteration, and therefore many fake products were in circulation. This was done by reducing the proportion of gallbladder in propriety medicines, blending the formula with the gallbladder of other animals, or replacing the ingredient by surrogates. In the 'Collection of illustrations from famous products of Japan's mountains and seas' (*Nihon sankai meisan zue* 日本山海名産図会, 1799)[30] we even find detailed instructions on how to make fake medicines:

> How to make a gallbladder imitation: Amur cork tree, gardenia fruits, and the hairy part of coptis japonica are finely ground, the gardenia fruits being slightly parched in order to eliminate the aroma; the three

[29] *Kōkei saikyūhō* I, 67b-68a; II, 32b; III, 89b.

[30] This is a five-volume illustrated book that introduces goods from all the provinces of eighteenth-century Japan and explains how to make these products. Kimura Kōkyō 木村孔恭 or Kenkadō 蒹葭堂 (1736-1802), a sake brewer from Osaka who also studied *materia medica* under Ono Ranzan 小野蘭山 (1729-1810), is assumed to have been the author, but the illustrations were done by Shitomi Kangetsu 蔀関月 (1747-1797). It is said that Kōkyō wrote the text in manuscript and recorded the local specialities of the provinces and their production methods by imitating Inō Jakusui's 稲生若水 (1655-1715) "Collecting herbs at one's own discretion" (*Saiyaku dokudan* 採薬独断); on the other hand, there also existed an illustrated manuscript made by Kangetsu in which he gave an account of the technical skills to be found in the different provinces by illustrating their products. It is therefore assumed that both authors took part in the compilation of this book. The work also includes passages from a Chinese book on brewing, the *Record of Liquors* (*Jiu pu* 酒譜) written by Dou Ping 竇苹 (dates unknown, Song dynasty) and the Korean medical book *Precious Lessons of Eastern Medicine* (*Dongui bogam* 東醫寶鑑) by Heo Jun 許浚 (1546–1615). It also refers to the *Chronicles of Japan*, Kaibara Ekiken's *Yamato honzō* and various other works; *KD* 11, 171.

> substances are mixed together, water is added, and the mixture is boiled and reduced; after it has dried to a black shiny substance, it will look like the original. As wrapping, two sheets of high-quality Mino paper are put together, moistened with the sap of daffodil roots and dried, and then used to wrap it entirely. The package is put between clamps to be dried in the shade. The creases in the paper soaked by the medicinal liquid then will look like the skin of a real gallbladder. However, if produced in the winter months, the product will become mouldy in the summer heat. It should therefore be made in summertime. This is how it is made around the province Bingo [today the eastern part of Hiroshima prefecture], but in other provinces it is produced mostly in the same way.[31]

The *Nippon sankai meisan zue* appeared shortly after the publication of *Kōkei saikyūhō* and was therefore not the trigger that led Motonori to warn his readers about forged bear's gallbladder and to provide additional information on how to find out whether an item was an imitation or not. Before the dissemination of Motonori's manual, the forgery of expensive medicines was common practice and there was no guarantee that the medicinal products at a pharmacy met the requirements regarding the authenticity and quality of a medicine, an issue that Kurokawa Dōyū and Okunishi Takatomo also raised in the above passages. Motonori tried to solve the problem by presenting several methods for proving the item's authenticity:

> One pours clear water into a sake cup and inserts a piece of bear's gallbladder the size of a sesame seed. If the piece jumps back and forth on the surface, it is a genuine one; if it moves slowly, the piece is an imitation. Another way to find it out is to put a poppy-seed-sized piece on burning coal and to observe its reaction. If it first rises on the coal and then disappears without a trace but produces the odour of sulphur, it is the real thing; if it boils and foamingly burns to ashes leaving behind an overwhelmingburning smell, it is a fake. Or else one puts a small piece on the tongue and if the taste is bitter as it penetrates the tongue to its base, then it is the real thing, but if the bitter taste remains on the tongue's surface, it is an imitation."[32]

Another widely faked medical product was made from the parotid glands of the toad. This poisonous secretion is well-known in Japan today under the name 'toad's oil' (*gama no abura* ガマの油). In order to obtain it, the toads are diligently cleaned and the skin and parotid glands massaged to extrude the liquid into a porcelain vessel. It is further filtered and then dried. In Japanese traditional medicine it is applied in cases of disturbances of consciousness, suppurations of the skin such as carbuncles, swollen and sore throat, toothache and heart problems. Especially well known are pills made from toad liquid to combat mastitis, osteomyelitis and skin suppurations. Just as famous was 'toad's oil' in the Tokugawa period,

[31] *Nippon sankai meisan zue*, in Sōda 1981 53.
[32] *Kōkei saikyūhō* I, 68a. This was still a problem in twentieth-century China. Read warns in his *Materia Medica* that "it is so commonly adulterated that one should test it in water. One drop of the genuine article will give a line in the water which does not spread. Drawn across a pool of ink, the ink should retreat from the tract"; Read, no. 361.

which was sold by street stall vendors. They claimed that their products contained toads dried in the shade, but more often than not they consisted of centipedes dissolved in sesame oil.[33] Also in *Kōkei saikyūhō*, we find toads as a cure in form of a dish made of fresh toad legs in vinegar and *yuzu*. This is recommended in the case of dog bites, especially when the dog shows signs of madness. If it happens that someone has accidently swallowed a needle, he advises to chopping off the head of three or four toads and drinking a cup of their blood in order to soften and disgorge the needle.[34] Yet in order to apply these remedies, one has to be informed of what a toad looks like:

Fig. 9. *Kōkei saikyūhō* III, 26b

> Toad (*raigama* 癩蝦蟆), Japanese name: *hikigaeru*
>
> This is an animal that lives in wetlands, and lays its eggs in water. It has two features around the eyebrows that look like sacks, and the whole body is covered with warts. It is not able to jump, and moves very slowly. Its croaks are rarely heard, too. The back is dark brown or black, the front is white with black spots. In the evenings or after evening showers in summer and autumn, it sets off for gardens to catch small insects.[35]

The danger of medicines: the example of lead powder as example

Another important issue relates to the properties of a medicinal substance. Motonori warns that the user also should be aware of the different properties of medicines. It is not the case, he explains, that they are beneficial because of their non-poisonous properties and that the poisonous ones were harmful; medicines work on the symptoms, and when addressed to them they are all effective, but at the same time they can be harmful when the symptoms do not correspond to the medicine used. He illustrates this statement by using the example of a magnet that attracts a needle but is not able to lift dirt, whereas amber is very good at picking

[33] Suzuki H., 243; Bensky, 458-9.
[34] *Kōkei saikyūhō* II, 90a; III, 25a.
[35] *Kōkei saikyūhō* III, 26b.

up dirt but is not able to attract a needle. The medicines in this book, he makes clear, contain in general only gentle substances; pungent or violent medicines are not used. As an emetic agent, for example, he prescribes salted water or the brine of pickled vegetables in the manual and not dried melon pedicles (*katei*) or veratrum root (*riro*)[36]. The reason he uses gentle medicines is that they would not be harmful even if mistakenly taken, and a doctor would be able to take restorative measures later. If strong and pungent medicines were applied incorrectly, the damage would be severe and leave no room for later action. Motonori stresses that it should be the doctor who decides the administration of strong medicine, and that it would be irresponsible to instruct people from the countryside to use strong medicines without any help. This would be equal to a situation in which people are gathered together in a dark room and one person dances around with a drawn sword; it is most unlikely that nobody would get hurt.[37] However, he does not only remind the reader to handle the medicines he uses with caution but also warns about the improper use of medicinal products. One of these is an ointment that contains lead powder. Lead powder (*enpun* 鉛粉), also known as "white lead" (*enpaku* 鉛白), "white powder" (*hakufun* 白粉), or "babarian powder" (*gofun* 胡粉), appears as "Chinese soil" (*tō no tsuchi* 鉛粉 [sic]) in the manual.[38] Its ability to expel parasites, discharge toxin from the body and renew the skin makes it suitable for the treatment of parasitic diseases, chronic diarrhoea, malaria and skin lesions. In past times, it was also applied internally, but today the application is confined to external ailments such as furuncles, eczemas, burns and bad body smells. Court ladies in the Heian period used 'white powder' as a cosmetic, and also in early modern times it was well known under the name "white powder of Kyoto" (*kyōoshiroi* 京白粉) together with 'mercuric chloride of Ise' (*keifun* 軽粉). These products were very popular for whitening the skin, but since the powder is characterised by toxic properties, it also threatened the lives of many prostitutes and actors in the Tokugawa period.[39]

Motonori mentions a lead-containing item in the context of mouse or rat bites. He first describes the symptoms that can appear after being bitten before advising against its application: there are many kinds of mice or rats, and in the case of some of them the bites are extremely poisonous. The wound, for example, might heal quickly and it looks as if all is well, but after a couple of days the person suddenly develops high fever and a red rash appears on

[36] In *NKD*, the same characters 藜蘆 are pronounced as *reiro* and explained as the Chinese reading for the Japanese term *shurosō* citing *Butsurui hinshitsu* 物類品隲 (1763) by Hiraga Gennai; *shurosō*, however, is a completely different plant; *NKD* 5/1093/c, see also Bensky, 208; Suzuki H., 193.
[37] *Kōkei saikyūhō*, introduction, 8a-9b.
[38] *Kōkei saikyūhō* III, 40b.
[39] Suzuki H., 30.

the skin. In extreme cases, the body is covered with black-purple spots, and the person falls into a manic, agitated state that leads to death. It equally could happen that the patient develops sensations of cold and heat after midday that manifests itself as weariness, or after the intake of adzuki beans or buckwheat experiences sensations of heat and cold, which may continue for many years. This happens to all of those who were initially treated in the wrong way. The reason is that the poison of the rat or mouse could penetrate between the skin and flesh. Therefore, ointments containing lead powder should not to be put on the wound. It may heal quickly, but the poison cannot escape outwards; instead it penetrates the skin and causes much damage. If one does not stick to that rule, the disease reappears, and it is no longer possible to help.[40]

The above examples show that Motonori was not only motivated to teach basic botanical knowledge with the help of illustrations that provide information on the seasonal changes and characteristics of plants and animals, and their medicinal effective components. By recommending gentle medicines and providing detailed information on ambiguous items he also tried to minimize the danger of wrongful application caused by inexperience and medical ignorance.

3. *Materia medica* in *Kōkei saikyūhō*

In the manual, Motonori does not make any distinctions between the quality of medicines as was for example done in *Divine Husbandmen's Materia Medica* (*Shen nong ben cao jing* 神農本草経) that divided the *materia medica* into superior, common, and inferior medicines according to their strength.[41] For Motonori, good medicines are those whose efficacy is known and which are kept within reach. That is why he in general chooses household items for everyday use such as *miso*, salt, vinegar, alcohol, but also food like vegetables and fish. In unavoidable cases, he says, items sold at a pharmacy are used, which he indicates in small letters in the text. As for fresh medicines, he continues, those are selected that are cultivated in a household garden or can be found at the roadside and in wasteland, and – equally important - are easy to pick up and collect. Since the regions differ in their vegetation and their products, an item, for instance, that was available in one place, might be no unobtainable in another. For this reason, he explains, he tried to list as many recipes as possible to offer a selection of medicines that covered all regions.[42] What does this mean concretely and how did he try to realise it?

[40] *Kōkei saikyūhō* II, 86a-b.
[41] Nappi, 28-9.
[42] *Kōkei saikyūhō*, introduction, 5b- 6b.

All in all, the medicines in the manual amount up to about 362 different items, which I have roughly divided into two groups: easily accessible and available medicines, and medicines obtained in a pharmacy. I further divided the first, which constitutes the larger part of approximately 250 items, into a) kitchen ingredients (foods, seasonings, and household items), and b) *materia medica* of the garden and nature, and c) excremental medicines.

Freely available or easy to obtain medicines

a) kitchen ingredients:[43]

- foods: different kind of fish such as silver jewfish (*ishimochi*), horse mackerel (*aji*), freshwater mussel (*bō*), clams, different kind of squids, vegetables, corns, fruits, and beans; animal products such as eggs but also cockscomb, rice wine, sweets. Of these foods, radish (*daikon*), rice, and Welsh onion (*negi*) are the most often used ingredients. Radish, its seeds and leaves are applied in about fifteen emergencies related to bleeding, inflammation, intoxication, suffocation, and deafness. Different sorts of rice, rice as porridge or soup, and rice water are used in twenty-one diseases. Welsh onion becomes a similar frequently used ingredient amounting to eighteen cases.
- spices and seasonings: different kinds of pepper, *miso*, soy sauce, vinegar, ginger, salt, variations of sugar, garlic, and sesame oil. The most often used household remedy is vinegar which is used in forty-two cases, followed by salt in thirty-seven cases, and fresh ginger in thirty-six cases. Also sesame oil is widely used; its twenty applications cover abrasions, and also stings but focus mainly on diverse intoxications.
- household items such as porcelain, fans (*sensu* and *ōgi*), cotton cloth, different kind of ashes as for example hearth ashes (*irori no hai*), charcoal and ink, dirt, soil, tobacco, wick, paper, hot water, black tooth dye, straw, candle wax, and so on.

b) garden and nature:

- plants and animals such as camellia, loquats, *Kudzu* flowers and roots, bulrush, thuja orientalis, wild chrysanthemum flower, narcissus, different kinds of mushrooms, Asiatic plantain, cold water, reed, deer antlers, bamboo, allium grayi, different sorts of snails, dandelion, metaplexis japonica (*rama*), coralberry, sweet wormwood, water pepper, chickweed, field mint, spiders, purslain, perilla (shiso), jujube tree, silvergras and reed, artemesia, rocambole, chives, banana plant, honeysuckle, choralberry,

[43] Kitchen ingredients were also very much a part of early remedy making as Lo points out, and can be traced back to the medical fragment 'Prescriptions for Fifty-two Ailments' (*Wu shi er bing fang* 五十二病方) found at the Mawangdui tomb site; Lo, 170. On the excavation of medical texts in Mawangdui, see Harper 1982 and 1998.

metaplexis japonica (*gagaimo*), Chinese and Japanese elder, chickweed, daffodil, sorrel, cherry tree, and much more.

c) excremental medicines:

- This involves excretions such as human urine, saliva of a cat, human and animal excrement, hair, dirt of the scalp and teeth. The number of excremental medicines used as an ingredient is quite high compared to other medicinal items which are often applied only a few times. Human urine is used in twenty cases, treatment especially with children's urine in eighteen cases, and cat's urine in one case. The book also reveals an extensive use of excrement, of which human faeces is the most commonly used in injuries such as cuts and bites, intoxications by metals and poisoning by fish, plants or mushrooms, followed by horse droppings in four cases, cattle and mice droppings in one case each. Some of the excremental medicines such as the faeces of the flying squirrel (*goreishi* 五霊脂) are an integral part of Chinese pharmacopoeia. In fact, 'Human drugs', as they are called by Cooper and Sivin, of which excremental substances are an essential feature, cover an entire section in the *Ben cao*, and include dandruff, earwax, dirt from the kneecap, perspiration, tears, penis, flesh and so on.[44]

Pharmaceutical products

The remaining 112 items could be purchased at a pharmacy, and these can be divided into four categories: seventy-four medicines that derive from plants, seventeen different kinds of minerals, fourteen medicines that derive from animals or animal products, and six compound medicines. Other products such as honey were also available at a pharmacy. It is striking that compound medicines represent only a small proportion of six cases compared to the total amount of medicines obtainable at a pharmacy. In four cases, these compounds were mostly made up of only two ingredients, in one case, "ginseng decoction" (*dokushintō* 独参湯), the formula consisted of only one ingredient, namely ginseng. The others are "ginseng and ginger decoction" (*shinkyōtō* 参姜湯), "ginseng and aconite decoction" (*jinbutō* 参附湯), "astragalus and aconite decoction" (*gibutō* 芪附湯), and "ginger and aconite decoction" (kyōbutō 姜附湯), and of these *jinbutō* was the most prescribed medicine.[45] If there existed proprietary names for these compounds, Motonori does not mention any of them but in general referred to their availability at a pharmacy - with one exception. In cases of Death by Suffocation,

[44] Cooper and Sivin, 211-2, FN 7.
[45] For example, in emergencies such as Wind Stroke, Loss of Consciousness during Intercourse, Sudden Turmoil, Spitting blood Due to Deficiency Accompanied by Heat and True Headache; *Kōkei saikyūhō* I, 16a, 21a, 37a; II, 4a, 31a.

Motonori recommends a famous local product, which is more associated with food than as medicine. It is a paste consisting of grapes, which he encourages his readers to make themselves and instructs them to "pick up many grapes at the end of autumn, peel the skins and remove the seeds, stir them over a flame as they thicken, add some sugar or molasses, allow the liquid to reduce to a paste, and store it. In the province Kai [today Yamanashi prefecture], they produce grape paste (*budōkō* 葡萄膏) and raisins; it would be good to obtain and store them beforehand."[46] All other pharmaceutical items that are mentioned in the manual are single substances.

Diversity of the remedies

If Motonori aims at offering a choice of medicines that covered all regions of Japan, as he claims in his introduction, we have to examine the medicines he listed more closely. Therefore, I will take one section in his manual, "bite wounds caused by various animals" (*shojū sakushō* 諸獣嚙傷), and examine the medicines recommended. These wounds cover bites caused by horses, cattle, domestic pigs, wild boars, dogs, cats and rats and also injuries caused by bears or mad dogs. There is even a reference to a possible encounter with a "water tiger" (*kawatarō* 水虎). The following table presents an overview of the substances used to treat such wounds.

Table 4: Medicines used for bite wounds in *Kōkei saikyūhō*

Pharmacy	**Kitchen ingredients**	**Garden and nature**	**Excremental medicines**
musk (*jakō* 麝香) oyster shell (*borei* 牡蠣) salpeter (*enshō* 焔硝) alum (*hakuban* 白礬) realgar (*oō* or *yūō* 雄黄) blue vitriol (*tanpan* or *tanban* 胆礬) phellodendron (*ōbaku* 黄柏) castor beans (*higashi* or *tōgoma no mi* 蓖麻子) apricot seeds (*kyōnin* 杏仁) nux vomica seeds (*machinshi* 馬銭子) ledebouriella root or siler (*bōfū* 防風) cimicifuga (*shōma* 升麻) kudzu root (*kakkon* 葛根) licorice (*kanzō* 甘草)	white sugar molasses salt ginger vinegar Welsh onion (*negi*) Turnip Japanese pepper (*sanshō*) Citrus junos kudzu root liver of a black hen hearth ashes soot hot water stone birdlime lime (rice) glue (*nori*) gun powder blue fabric black tooth dye	Japanese chives loosestrife chickweed field mint ginkgo fruit sambucus chinesis white rhododendron flowers rhododendron japonicum morning glory pine resin palownia Japanese anis tree (*shikimi*) Japanese chestnut walnut shell oyster shell toad	hot excrements of a cattle blood of a cockscomb

The table illustrates the broad range of items that can be used to treat a wound caused by an animal. In some cases, Motonori recommends an item such as oyster shell that can be

[46] Kōkei saikyūhō III, 1b.

obtained both in a pharmacy and in the garden and nature. For the fresh item, he generally refers to nature as the place to look, whereas for the dried items such as ginger or kudzu it is mostly the pharmacy that is mentioned. This supports the idea that Motonori generally perceives the items available at pharmacy as an alternative when no fresh ingredients are readily obtainable such as during the winter months. In fact, there is no recipe in the whole manual, in which he relies on substances that are available only from a pharmacy. Table I in the appendices illustrates the dispersion of ingredients that are used for treating an ailment, and besides revealing that there are no recipes that contain only ingredients from a pharmacy the table shows also that in some cases Motonori relies only on products obtainable from the household, garden or nature. This is, for example, in the case of Summer Heat Stroke, Heart Attack or Dizziness Caused by Puncturing.[47]

It is a complex undertaking to estimate the degree to which flora and fauna have changed or expanded over time through the exchange and purchase of seeds and cultivation programmes, or what impact books on cultivation such as *Nōgyō sensho*, herbal gardens, and seeds have had on the botanical and environmental landscape. However, I will attempt a brief outline of this process in the following section in order to investigate how these easily obtainable 'medicines' made their way into the kitchen and garden.

Non-native but naturalised items

Eighth to twelfth centuries:

In general, it is not an easy task to estimate when a plant or seed made its first contact with the Japanese soil. Suzuki assumes that citrus junos (*yuzu* 柚子)[48], aubergines, jujubes (*natsume* 紅棗), and loquats (*biwa* 枇杷) came to Japan around the eighth century. Now an essential part of Japanese cuisine citrus junos is used in many methods of preparation such as vinegar, *miso*, steamed dumpling, marmalade and oil. As an essential oil, it is said to stimulate the cerebrum and lifts one's mood; massaged into the skin it is said to improve the circulation by stimulating the blood vessels and thus helping to alleviate chills, neuralgia and back pain. *Yuzu* baths are considered to be beneficial for cracked skin and colds.[49] In *Kōkei saikyūhō* the grated skin of the fruit is recommended for use in case of dog bites.[50]

Originally from India, aubergines were already widely used as vernacular medicine. In particular aubergine flowers had the reputation of being an effective remedy for *fugu-*

[47] See appendices table I: diseases and medicines in *Kōkei saikyūhō*.
[48] Also known as *tōshi* 橙子 or *yujitsu* 柚実, Suzuki H., 415.
[49] *Ibid*.
[50] *Kōkei saikyūhō* II, 87b.

poisoning. The flowers play a minor role in classical Chinese medicine, and are mostly applied in cases of swellings, stomatitis and tooth pain.[51] Motonori appreciates their properties to remove the toxins of old and poisonous mushrooms from the body and advices to eat them together with the broth. He also recommends consuming them charred in cases of contusions and distortions of the limbs.[52]

Jujubes gradually became part of the house garden. Their buds (*me*) come out in early summer (*natsu*), which is the reason they are called *natsume*. In the tea ceremony, the lacquered tea caddy bears the same name because of its shape. The ripe fruits can be eaten, although they contain a large stone and taste very sour. For medicinal purposes they are usually picked before ripening and, depending on the method of processing, the colour either stays red or turns black.[53] Motonori recommends the intake of the fresh fruit when a person is intoxicated by Japanese pepper (*sanshō*), and their kernels in the case of haematemesis resulting from excessive heat.[54]

The loquat tree appeared in Japan around the ninth century; its cultivation as a fruit tree, however, did not start until the middle of the Tokugawa period. Although Japan seemed to have had its own variety, the fruit was not much appreciated since it was very small. In the nineteenth century, a new variety from China characterised by larger fruits was introduced from Nagasaki and quickly spread to the rest of the country. However, it was not so much the fruit as the leaves that were and are still used in classical Chinese and Japanese medicine as they contain antiphlogistic and antibacterial substances. In pre-modern Japan, the leaves were also used in cases of food poisoning and diarrhoea. In the eighteenth and nineteenth centuries, a formula containing loquat leaves called *wachūin* (和中飲) was particular popular as panacea against summer heat. The leaves were also widely used in the bath tub against prickly heat, and their application has developed into a healing method that seems to be successful in treating cancer.[55] In *Kōkei saikyūhō* both the leaves and fruit are used; the former are recommended for treating beriberi, and the stones of the fruit for curing haematemesis due to excessive heat.[56]

There are many entries in *Kōkei saikyūhō* which refer to the lotus root (*hasu no ne* 藕の根, also *renkon* 蓮根). The plant came early to Japan and was introduced as a foodstuff in the twelfth century. Its cultivation started to flourish from the nineteenth century onwards,

[51] Suzuki H., 61.
[52] *Kōkei saikyūhō* II, 63b.
[53] Suzuki H., 268-9.
[54] *Kōkei saikyūhō* III, 47b; *Kōkei saikyūhō* II, 5a.
[55] Suzuki H., 362-3; Bensky, 201-2.
[56] *Kōkei saikyūhō* I, 61b; *Kōkei saikyūhō* II, 5a.

when a new Chinese species was introduced. The *Nōgyō zensho* prizes the root as beneficial for the whole body, quenching thirst, stopping bleeding, and also for alleviating hunger. The book provides instruction on how to grow the plant and advises selling the seeds to a pharmacy when there is a surplus. It also explains the beneficial effects of the seeds as medicine.[57] In fact, almost every part of the plant can be used as a medicine. Motonori, for example, uses its roots, cores, and leaves as a remedy against nose bleeds, eye problems, alcohol and crab intoxication, mushroom poisoning, and afterbirth obstructions.[58] In volume two of *Kōkei saikyūhō*, we find an illustration of its core, where Motonori explains what the core looks like and which part is to be used:

Fig. 10 *Kōkei saikyūhō* II, 19a

> **Core of the lotus (*renbō*)**: It is the shell that hosts the seeds. The stem is thrown away and only the core is used.[59]

Originally from China, the ginkgo tree came to Japan around the tenth century and was subsequently planted all over the country. It is the seeds of the tree (*ginnan* 白果)[60] which are used in the treatment of coughs, asthma, leucorrhoea, nocturnal enuresis and frequent urination.[61] They are slightly toxic, but are rich in protein and starch. The *Nōgyō zensho* recommends drying and roasting the seeds, which, after removing the shell from the body, can be used as a type of confectionery.[62] Motonori uses the fruits for the treatment of cat bites.[63]

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[57] *Nōgyō zensho* 5, in: *Ekiken zenshū* 8, 682-3.
[58] *Kōkei saikyūhō* II, 2a; 14a-b; *Kōkei saikyūhō* III, 17a; 49a-b; 52a; 57b; 74a.
[59] *Kōkei saikyūhō* II, 19a.
[60] Motonori uses the characters 白果, read as *hakuka* or *byakka*, but adds the pronunciation *ginnan* 銀杏 that refers to the fruit.
[61] Suzuki H., 326; Bensky, 389-90.
[62] *Nōgyō zensho* 8, 763.
[63] *Kōkei saikyūhō* II, 87a.

Introduced from Central Asia, grapes (*budō* 葡萄), also called *ebi*, were cultivated from the twelfth century onwards. The *Nōgyō zensho* explains their cultivation and additionally notes that ordinary grapes are not suitable for making wine.[64] In *Kōkei saikyūhō*, fresh or dried grapes are recommended in emergencies such as suffocation by smoke and eclampsia, and the root of the grapevine was applied to pregnant women to calm the foetus.[65] It not only seems that domestic grapes or wine were a popular gift but also that overindulgence in imported red wine was apparently a problem, since there is an entry in *Kōkei saikyūhō* referring to red wine intoxication. Motonori advises that "if one is going to die due to intoxication by red wine, it would be beneficial to boil saltwater and drink about five to six cups of it".[66] Red wine is here called *chintashu* (阿蘭陀酒)[67] denoting the Portuguese word 'vinho tinto' (red wine), which the Portuguese brought with them in their ships.

Sixteenth to nineteenth centuries:

It is generally assumed that the Portuguese brought the red or chilli pepper (*tōgarashi* 辣茄)[68] along with other things in the sixteenth century to Japan. According to Suzuki and others, it was not introduced to China until the end of Ming dynasty and is therefore not mentioned in the *Ben cao gang mu*.[69] Kaibara Ekiken however mentions in *Yamato honzō* that, "in the past, there was no red pepper in Japan, but when Hideyoshi attacked Korea, he carried the seed back home, that is why it is called 'pepper from Goryeo'".[70] We also find an entry on the 'Barbarian pepper' in *Nōgyō zensho*. After the description of the plant and its fruit, it states that "in places near cities and villages where there are many households it is cultivated and sold on a large scale".[71] The author, Miyazaki Antei, mentions its property as a hot medicine and its effects on the body, and also gives instructions about its usage, so that, "when charring the pepper, and taken in hot water, it can heal long-existing bloody stools. That shows its

[64] *NKD* 11, 961, a; *Nōgyō zensho* 8, 762-3.
[65] *Kōkei saikyūhō* III, 1b; 62b; 66b.
[66] *Kōkei saikyūhō* III, 54a. Salt water taken in large quantities causes vomiting.
[67] The characters used by Motonori usually stand for the country Holland, but he indicates that they should be read as *chinta*. An outline of the different kinds of wine known in early modern Japan can be found in Joji Nozawa, 'Wine-drinking Culture in Seventeenth-century Japan – The Role of Dutch Merchants', in *Japanese Foodways: Past and Present*, Eric C. Rath and Stephanie Assmann, eds, (Urbana, Chicago, Springfield: University of Illinois Press, 2010): 108-125.
[68] Other names are *rasshō* 辣椒 and *banshō* 蕃椒; Suzuki H., 296.
[69] Suzuki H., 296-7.
[70] Yamato honzō 5, in *Ekiken Zenshū* 6, 116. Ekiken also cited a Chinese dictionary published under the Chinese emperor Kang Xi 康熙 (r. 1661-1722) and entitled *Record on Widely Gathered Fragrant Items* (*Guang qun fang pu* 廣羣芳譜) that gives a detailed description of the plant; *ibid*.
[71] *Nōgyō zensho* 4, in *Ekiken Zenshū* 8, 679.

great efficacy but this also depends on the symptoms."[72] He also comments that Ekiken was correct when he said that the plant is not mentioned in the *Ben cao gang mu*, but Li Shizheng apparently had seen a description of the plant in *Eight Commentaries on Living a Healthy Lifestyle* (*Zun sheng ba jian* 遵生八箋, 1591)[73], and in *Food and medicinal herbs* (*Shokumotsu honzō* 食物本草)[74]. There is indeed a detailed description of the red pepper in the "Food mirror of our country" (*Honchō shokkan* 本朝食鑑, 1697).[75] It states that, "it is no more than one hundred years that the 'Barbarian pepper' has been used in our country. […] It came over from the West and is grown now all over the country. From the beginning, it was loved by the people".[76] Even if it is not entirely clear whether the spice was directly introduced to Japan by the Portuguese or came from Korea, in China, it became part of Chinese medical textbooks and was used in Chinese medicine as a tonic against lack of appetite and poor digestion. In Japan, however, it never became standard medicine but was exclusively used as a vernacular medicine that derived from the 'babarians'. Suzuki even claims that it was highly appreciated among the population, and supposing his assumption is correct, then Motonori might have known about its beneficial properties from its widespread usage among the general population.[77] He recommends it as a treatment for Spitting Blood Due to Excessive Heat and poisoning after the consumption of water melon.[78]

Closely resembling a Japanese cypress, the thuja orientalis (*sokuhaku* 側柏) originally comes from the northern parts of China and was introduced to Japan in the Tokugawa period, where its broad cultivation as an ornamental tree begun. The Japanese name is "children's hand oak" (*konotegashiwa* 児手柏), which refers to the shape of the sprigs that resemble a hand with the fingers stretched out.[79] Its name is occasionally confused with a flower of the same name that appears in the *Man'yōshū*. The most famous examples of the tree are found in the Shōōji Temple in Tokyo that claims to host two specimens, which were moved from their original site to their present location in 1726. One of them, however, withered and its stump

[72] *Ibid*.
[73] Written by Gao Lian 高濂 (sixteenth century) of the Ming dynasty, it deals with ways to stay in good health. The twenty-volume work also includes methods of prolonging life, diet, miraculous cures, and so on; *CEWO*, 1876.
[74] It consists of 4 volumes and is written by Lu He 卢和 in the seventeenth century; *CEWO*, 1246; *Nōgyō zensho* 4, 678.
[75] This twelve-volume work deals with food as materia medica. Written by Hitomi Hitsudai 人見必大 (1642-1701), the son of Gentoku, who was a Bakufu physician to Tokugawa Ietsuna 徳川家綱 (r. 1651-1680), the manual was highly appreciated by early-modern botanists. It gives a description of 442 kinds of food cultivated in Japan: Kosoto, 362.
[76] *Honchō shokkan* 2, 114.
[77] Suzuki H., *loc. cit*.
[78] *Kōkei saikyūhō* III, 48b.
[79] Suzuki H., 257-8.

became a good-luck *Jizo*. According to an inscription in the temple, the seeds were imported during the Heian period to be used as a remedy, a statement that conflicts with the above mentioned claim that the tree was not introduced to Japan before the Tokugawa period.[80] In the literature of classical Chinese medicine, the needles are applied for all kinds of bleeding. For burns, the fresh needles are made into a paste and then applied on the affected spot. Recent research also shows its benefit in removing mucus and soothing coughs.[81] Motonori recommended the needles for internal use in the case of Spitting Blood Due to Deficiency, and externally for scalds from hot water.[82] He also provides an illustration and description of the tree.[83]

Bulrush as an example of a 'native' plant

Besides these naturalized plants, Motonori also lists what might be considered as native plants in *Kōkei saikyūhō*. One of them is bulrush (*hoō* 蒲黄), which is mentioned in the "Record of ancient matters" (*Kojiki* 古事記) as part of the earliest description of a medicinal treatment in Japan, in which help Ōkuninushi no Mikoto (大国主命) uses it to heal the wounds of the White Rabbit of Inaba. The plant is widely distributed throughout Japan, and is most likely to be found in wetland areas and marshes. Besides its medicinal properties it plays an important role in landscape gardening and ikebana. The leaves and stems are also used for making baskets, mats and reed blinds (*sudare*), and the buds and bulbs are used as edible starch flour. Another early description of its medicinal use is found in the *Sheng nung*, where it is stated that the administration of the pollen promotes urination, stops bleeding, and dissolves blood stasis.[84] Motonori recommends internal use in cases of bleeding during pregnancy, uterine bleeding, restless foetus and acute signs of premature birth, and the external application in cases of small cuts by knives, scissors, and swords, as well as bleeding of the gums and swelling of the tongue.[85] In the case of bleeding gums, for example, he advises the reader to roast the bulrush, and gives detailed information about where to find the plant and which part of it should be used, namely "the yellow powder that is on the spike of the plant that grows in marshlands and lakes. The powder is also available in a pharmacy; for an illustrated description see under the section 'cuts'."[86]

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[80] http://www.syoujouji.jp/konote.html, (accessed March 6, 2013); *ibid*.
[81] Bensky, 258-9; Suzuki H., *loc.cit*.
[82] *Kōkei saikyūhō* II, 3a; 69b.
[83] *Ibid.*, 9a.
[84] Suzuki H., 381-2; Bensky, 249-50.
[85] *Kōkei saikyūhō* II, 20a; 45a; 57a; 59b; *Kōkei saikyūhō* III, 63a; 64b.
[86] *Kōkei saikyūhō* II, 20a.

Fig. 11 *Kōkei saikyūhō* II, 20a

Flowering bulrush

Japanese names: *gama* or *gaba*

Bulrush grows in water or marshland; the leaves, similar to those of the soft-stem bulrush (*futoi* 莞)[87], are thin and broad. They are soft and have a top and bottom side as shown in the illustration. In summer, the stem grows and produces a spike which is dark brown and resembles a candle, and on which a yellowish powder is to be found. This is the flower of the plant and is called 'yellow of the bulrush' (*hoō*), which is to be collected and used.

Both stems and leaves reach a height of about three to four *shaku* [ca. 90-120cm], and the length of the spike is about five or six *sun* [ca. 15-18cm].[88]

Bulrush is a perfect example of a plant widely used as a part of the *materia medica* in classical formulae that was sold in pharmacies, but could also easily applied as a vernacular medicine. Moreover, it illustrates that all pharmaceutical products originally derived from vernacular medicines, that is, from substances taken from nature.

Conclusion

The close examination in this chapter reveals not only the wide range of different sorts of medicines, it also unveils the assimilation process of foreign items to the degree that they became an integral part of daily life. The examination into origin and use of non-native plants illustrates the way how they precipitated environmental and cultural change that was induced by the theoretical and practical acquisition of botanical, horticultural, and agricultural

[87] Bot. N.: scirpus tabernaemontani.
[88] *Kōkei saikyūhō*, *loc. cit.*

knowledge. The analysis moreover has shown that basic botanical knowledge was essential to a certain degree if one did not want to fall victim to fraud. Yet it is not only fake medicines that represent a major challenge for self-help, also persons falsely claiming to have special medical knowledge or skills are likely an obstacle in the attempt to perform health care. This issue will be tackled in the next chapter.

Chapter Five: On amateurs and professionals in the medical field

Addressing the general issue of scholarly and popular medical knowledge, this chapter deals with the basic question as to how far the reader can be their own doctor and at which point they should consult a physician. It aims at illuminating the fundamental tension and interplay between the professional and the amateur, which we can see in the wide variety of medical practitioners, their education and ethos, and it raises the question as to whether *Kōkei saikyūhō* can be perceived as an alternative to the role of doctors in imparting medical knowledge. The chapter also deals with the question of competence and responsibility between these two poles of professional and amateur; that is, it asks to what extent Motonori imparts basic medical knowledge to the reader to enable him to be his own doctor and what form this knowledge takes. By taking the example of moxibustion as a treatment method, I will investigate whether and to what extent these different poles of knowledge lead to a conflict between standard medicine and the medical knowledge of the populace.

1. Setting the scene

The Scottish doctor William Buchan (1729-1805), and other physicians of his time, published popular medical textbooks with the desire to educate the common people to become better human beings, a belief that was rooted in Enlightenment ideals, and the intention to prevent them falling victim to quacks.[1] Is it in fact possible to see the dissemination of *Kōkei saikyūhō* as an attempt to protect the sick from unskilled doctors, in a similar way to some publications in eighteenth-century Europe? Burns suggests that Taki Motonori triggered a new discourse on the skills and ethics of a physician by claiming that 'commercialism and shallow learning of his fellow doctors were endangering the lives of their patients', an issue that was revisited by Hirata Atsutane 平田篤胤 (1776-1843), who was also a practicing physician, in his Shizunoiwaya 志都能岩屋 lectures twenty years later.[2] The introduction to *Kōkei saikyūhō* in fact suggests that both the status and the work ethos of doctors were generally not held in high regard. When Motonori explained his motives for writing the manual, he mentioned that he had written the book not only for the people in the countryside, who were more likely to have no access to a doctor but also "for those living in big cities, [because] when circumstances are bad, they call a doctor in vain, and even when they want to consult another

[1] Porter 1995, 444-5.
[2] Burns 2008, 62-3.

one, they fail."[3] To understand his concerns we have to take a closer look at the status and reality of the profession of a doctor in Edo-period Japan.

2. Doctors in early modern Japan

In pre-modern Japan when people fell ill, but not seriously, they relied on proprietary medicines or popular remedies. When they became seriously ill, they consulted a doctor for medical advice or sent for one for a house visit. A physician in general was called *isha* 医者, *ishi* 医師 or even *kusushi* 薬師, and the profession was as diverse as the status of practitioners: they could be Confucian scholars and medical practitioners at the same time (*jui* 儒医), city doctors (*machii* 町医), domain physicians (*han'i* 藩医) or physicians who worked directly under the shogunate (*kan'i* 官医). There were many other names common for the different types of doctors besides those of official ranks. A physician, for example, who was in service to the court or to a domain was commonly called "in-house doctor" (*okakae isha* お抱え医者), and the term "fashion doctor" (*hayari isha* 流行医者) was used to refer to those who were good at peddling medicines in the street.[4]

The occupation of a doctor, like that of a scholar, allowed its practitioner to break out of the rigid class system of Tokugawa society; this profession, therefore, was a highly attractive alternative providing an opportunity to strive for a career and gain both social status and high income, since there was no formal system for the acquisition of qualifications. The popularity of the medical profession can be perceived from the "Directory of medical practitioners in Edo at the present time" (*Edo konsei ika jinmeiroku* 江戸今世医家人名録): when its first edition was published in 1819, it listed the names of 570 doctors with address and specialisation, and in the following year, the number of registered physicians rose dramatically to about 2500.[5] However, as there were no fixed prices for treatment and medicine, it was a matter of discretion how much had to be paid for the doctor's treatment and medicines. It sometimes happened that the patient paid in goods instead of money. Unlike many poor physicians who worked part-time as instructors or in the fields, famous doctors such as Sugita Genpaku 杉田玄白 (1733-1805), who was employed by Lord Sakai, had an

[3] *Kōkei saikyūhō*, introduction, 1a.
[4] Tatsukawa 1984, 416; on these different types of physicians, see Suzuki A., 89-91.
[5] Tatsukawa, *loc.cit*; Kinski, 56. The directory is accessable online at http://koara-a.lib.keio.ac.jp/rarebook/fujikawa/F-i-28/book495.html.

annual income of 300 to 600 *ryō*, made up of earnings from medical treatments and money bestowed on him by his lord.[6]

The medical system

When the medical positions within the Bakufu government were established at the beginning of the Tokugawa period, they were generally filled by physicians from Kyoto, and the Bakufu applied the ranks that were originally given at the Court in Kyoto to Bakufu physicians as well. These were the medical ranks of "Head of the Bureau of Medicine" (*ten'yaku no kami* 典薬頭), and the various monastic ranks such as First monk rank (*hōin* 法印), Second monk rank (*hōgen* 法眼) and Third monk rank (*hokkyō* 法橋).[7] It is, however, not entirely clear when the physicians officially took up their positions in the government. According to Fujinami, it was the year 1675 when the names of the physicians and their positions were listed in the directories of bakufu officials (*bukan* 武鑑) for the first time, but it was not until the beginning of the Kyōhō era (1716-36) that the filling of the medical posts in the Bakufu was completed.[8] These were – from top to bottom – "Head of the Bureau of Medicine", followed by "Physician of the Inner Quarters" (*okuishi* 奥医師), "Physician on Duty" (*ban'ishi* 番医師), "Associated Physician" (*yoriai ishi* 寄合医師), '"Physician of the Palace's Maintenance and Repair Department" (*kobushin ishi* 小普請医師) and "Physician in Attendance" (*memie ishi* 目見医師). According to Hattori, the highest rank of *ten'yaku no kami* was given by the Court, and he claims that this position was held by members of the Nakarai and Imaōji families up to the end of the Tokugawa period.[9] In general, there were around twenty people of medical rank present at the shōgun`s residence at any one time, and salaries ranged from one to two hundred *koku*.

Okuishi

The *okuishi* were also called "Attendant Physicians" (*okinju ishi* 御近習医師), and within their group there was an internal ranking: the highest and most powerful position was that of the "Spoon Physician" (*osaji ishi* 御匙医師), symbolised by a silver spoon for administering medicine, which the Shogun awarded to the person he considered the most skilled and

[6] The most expensive medical treatment in Edo-period Japan was in 1650, when the bakufu physician Kanō Genchiku received one thousand *ryō* directly from Lord Hotta of the province Kaga for his medical services, and a further thousand *ryō* from the Bakufu; Tatsukawa 1984, 417.
[7] Yoshioka 1989, 84.
[8] Fujinami, 61 *et seqq*., in *ibid*., 84.
[9] Hattori, 767.

trustworthy.[10] The post of *okuishi* was partially hereditary; the fact that competent physicians from outside the Bakufu circle, such as town physicians or domain doctors, could be selected as *okuishi*, made this profession particularly attractive to low-born physicians eager to make a career. The activities of the *okuishi* were confined to the Honmaru, the main building of the castle, and the Nishi no Maru, the west compartment in the extention of the castle, where they administered medicines and conducted diagnosis and treatment for the shōgun, his family and all those related to their internal rooms. However, influential daimyō were also entitled to call an *okuishi* to their fiefs.[11]

The *okuishi* usually held the title of *hōin* or *hōgen*, and depending on his specialisation he belonged to the "main path" (*hondō* 本道) or "internal medicine" (*naika* 内科), surgery (*geka* 外科), acupuncture (*shinka* 鍼科), "eye specialists" (*ganka* 眼科) and "oral specialists" (*kōka* 口科). According to Hattori, there were also physicians trained in Western medicine among the *okuishi*, such as Ogata Kōan 緒方洪庵 (1810-1863) and Itō Genboku 伊東玄朴 (1801-1871).[12] All branches were under the control of the Junior Councillors (*wakadoshiyori* 若年寄). Usually, it was the physicians of internal medicine who were in daily contact with the shōgun; they, in general, came in pairs to examine his pulse, stomach, and administer some medicine.[13] The number of *okuishi* varied considerably depending on the shōgun in office. Fujinami shows that their numbers fluctuated from the year 1675, when they were only four members, to fourteen in 1691, and up to twenty-four in 1704, only to decline to six in 1809.[14] Hattori has examined the directories of Bakufu officials for the years 1681, 1718, and 1866 and has listed all the physicians employed by the Bakufu. The directory for the year 1866, for example, lists one member of the Taki family holding the rank of *okuishi*.[15]

Ban'ishi and *yoriai ishi*

The *ban'ishi* were in charge of the "outer part" (*omote*) of the castle, where the governmental offices of the shōgun were located. Accordingly, they were also called "Physician on Duty in the Outer Part" (*omote ban'ishi* 表番医師). They too were controlled by the Junior Councillors, and were present in castle for night shifts and in case of emergency. This was not the case for the *yoriai ishi* who were not involved in daily medical treatment at the castle but

[10] Imaizumi explains that the *osaji ishi* was the highest position within the oku'ishi, Imaizumi, 30. Mori, 17; see also Imazumi, 28, in: Yoshioka, *loc.cit*.
[11] In general restricted to about twenty families, these lords are called *kunimochi daimyō*, and possessed at least one fief; Konakamura, *kansei enkaku ryakushi* 6, chapter 26, 63-4.
[12] This especially applies for the latter days of the Tokugawa period; see Hattori, 767.
[13] *Ibid*.
[14] Fujinami, 61; in Yoshioka, *loc.cit*.
[15] Hattori, 776-84.

were obliged to be present at certain times of the year, especially on New Year's Day, when they had to offer their 'secret medicines' as a gift for the shōgun and his family.[16] Their task was to keep themselves prepared for unforeseen circumstances, and like the other ranks, they were controlled by the Junior Councillors, but did not receive any stipend. Their number varied considerably; in 1732, for example, as many as 134 people were holding this post.[17] The post of a *yoriai ishi* in general was assigned to all young doctors or those in training, when they succeeded as the head of the family.[18]

Kobushin ishi and *memie ishi*

While still under training the *kobushin ishi* treated samurai as well as town people. They were in charge of the records in which they noted the personal data, type of disease and medication of each patient, as this was to be included in the reports they had to give to their superiors. Unlike the *yoriai ishi*, they received an allowance from the Bakufu.[19] The group of *memie ishi* included several types of doctor: on the one hand, ordinary doctors and fief physicians who had a reputation as being skilled in medical matters, and were therefore chosen to be employed in the Bakufu, were assigned this rank. This was, for example, the case when shōgun Yoshimune established a dispensary for the ill and needy, for which he needed competent doctors.[20] On the other hand, it was also possible to assign a physician who had just become an *okuishi* or *ban'ishi* to the position of *memie ishi*.[21]

The career of the Taki family within the medical system

In this section, an outline of the careers of Mototaka, Motonori, and Motoyasu will be given to illustrate how the recruitment system in general worked for a person born or adopted into a traditional family of physicians. Their biographies will also show their increasing influence within the Bakufu, which culminated in the nomination of the Igakkan as the official medical institution. Although they played a key role in the politics of medicine, not much has been written on their activities apart from Mori's study mentioned in the introduction, but there is much to be derived from the entries in *Kansei chōshū shokafu* 寛政重修諸家譜, a genealogy that contains the biographies of famous people but also describes the careers of less well-known families.[22]

[16] Konakamura, 64; *NKD* 10, 929a.
[17] Yoshioka, *loc.cit*.
[18] Konakamura, *loc.cit*.
[19] *Ibid*.; *NKD* 4, 1042b.
[20] Konakamura, *loc.cit*., *NKD* 10, 213b.
[21] Yoshioka 1989, 85.
[22] For more details on *Kansei chōshū shokafu*, see Dettmer, 157-8.

Motokata

As we know from Kurokawa Dōyū's *Yōshū fushi*, the ancestors of Motonori held the position of *ten'yaku no kami* in the Heian period before becoming specialists in oral medicine. At that time, they lived in Kyoto under the surname Kaneda. Mototaka, originally born to a family called Fukushima, was chosen as their adoptive son, and took over the business as head of the family in 1720, at the age of twenty-five. Four years later, he was introduced to Tokugawa Yoshimune as *memie ishi* to be placed among the *ban'ishi* the following year; he was ordered "not to neglect his original business as a specialist in oral medicine, but at the same time to put all his efforts into internal medicine since he had the reputation of devoting himself wholly to training in this area."[23] In 1736, he became *yoriai ishi*, and was promoted to the position of *okuishi* with the rank of *hōgen* in 1747. Two years later, he changed his family name to Taki, and in 1751, he became spoon physician to the retired Yoshimune, an occupation that ended in the same year with Yoshimune's death. Already in the preceding year his son Motonori had set foot in the Bakufu by becoming *memie ishi* for the succeeding shōgun Ieshige, and two years later, Mototaka regained his position as *okuishi* under the government of the following shōgun. In 1765, while serving in the Ninomaru, he asked for permission to establish a training centre for the disciples of all physicians, which was granted shortly afterwards, and he built a lecture hall on rented grounds in Kanda. He died the following year aged seventy-two.[24]

Motonori

Shortly after Mototaka's death in 1766, Motonori took over the family business at the age of thirty-six. In the same year, he was appointed *yoriai ishi* and was ordered to continue the medical academy according to his father's principles. He became *okuishi* and *hōgen* in 1776 and *osaji* physician twelve years later; finally in 1790, the year in which *Kōkei saikyūhō* was published, he was rewarded with the highest rank of *hōin*.[25] Although Motonori was promoted to the position of *osaji* physician in 1786, the year of Ieharu's death, it was not he who treated the shōgun in his last days. The *Tokugawa jikki* informs us that the physician entrusted with the health of Ieharu at that time was Ōyagi Den'an Morimi 大八木伝庵盛昭, but when Ieharu suddenly became ill in the eighth month, Tanuma called in two trusted town physicians named Hyūga Tōan 日向陶庵 (data unknown) and Wakabayashi Keijun 若林敬順 (data unknown), and all *okuishi* were summoned to discuss the prescription for Ieharu on the

[23] *Kansei chōshū shokafu*, 182; Mori, 18.
[24] *Ibid*.
[25] *Ibid*.

eighteenth day. The following day, both town physicians were appointed to the rank of *okuishi*; however, it turned out that the medicine Wakabayashi had administered the previous day worsened the illness. He was prevented from continuing his treatment and the shōgun was again placed under the care of Ōyagi, and shortly after, both town physicians were relieved of their duties.[26] This episode illustrates the permeability of the medical system within the Bakufu, and shows that it was not unusual to call a town physician for the treatment of high ranking officials.

Kansei chōshū shokafu also provides more general information on Motonori and his achievements. It comments that he copied the incomplete volumes of the *Ishinpō* stored at the Ninnaji temple, for which he was rewarded with bolts of silk fabric, and notes his declining health. His request for retirement, for example, was declined, because he was regarded as irreplaceable. The reader is further told that Motonori still had manuscripts written in his own hand at home which were still to be published. Among them were *Kōkei saikyūhō*, "First lessons for physicians" (*Ika shokun* 医家初訓, 1833), which will be discussed below, and "Outline of health preservation" (*Yōjō taii* 養生大意, unpublished).[27]

Motoyasu

Compared to the account of Motonori, *Kansei chōshū shokafu* is not very informative regarding Motoyasu, his son and co-editor of *Kōkei saikyūhō*. It is, however, safe to say that in terms of position and rank Motoyasu had a meteoric career within a short period of time: by 1790, at the age of twenty-three, he had already become *okuishi* and *hōgen*; one year later he was employed at the Igakkan together with his father, and in 1794 he served as apprentice, becoming *osaji* physician later. The entry finishes by briefly mentioning his offer to the shōgun of two bound parts (冊) of the Song edition of *Commentary on the Book of Documents* (*Shang shu zhu shu* 尚書註疏) by Kong Yingda 孔穎達 (574-648).[28] He furthermore knew the whereabouts of the remaining scrolls to complete the set, and was thus given ten white silver coins for his efforts. *Kansei chōshū shokafu*, however, did not mention that his career came to a sudden end in 1801 when he outspokenly raised an objection at the election of Bakufu physicians: the candidate chosen was not the one he recommended but an incompetent

[26] *KT* 47, 808; Hall 1955, 138. Hall presents an additional version of this incident other than the *Jikki* by citing a private account of the death of Ieharu, which led to the final downfall of Tanuma. According to this, Hyūga declined to treat the shōgun, but Wakabayashi advanced and Ieharu drank the prepared potion only to die shortly afterwards. This led to rumours that Ieharu was poisoned; for details see Hall, 139; see also Hattori, 707.
[27] *Kansei chōshū fukasho*, 182.
[28] The digital archive of Waseda library holds an 18th-century print published in Japan under this title. It consists of twenty scrolls that are bound into ten parts (*satsu*), and the library catalogue mentions two authors: Kong Anguo 孔安国 of the former Han dynasty and the early Tang commentator Kong Yingda; see http://www.wul.waseda.ac.jp/kotenseki/html/ro12/ro12_00078/index.html (accessed, July 10th 2014).

with good references from the Inner Palace (*kōkyū* 後宮) of the imperial court. Motoyasu immediately wrote a petition to the government, an action that resulted in his demotion from *okuishi* to *yoriai* physician, house arrest for one hundred days, and the loss of all his privileges. Nine years later, in 1810, the Bakufu restored his position, but shortly afterwards he died suddenly, aged fifty-six.[29] According to Mori, it seems that, except from a financial standpoint, the demotion had little impact on Motoyasu, since it allowed him to spend more time on the writing, commenting on and editing of his remaining works on medicine.[30] Many of his commentaries on Chinese medical classics are still an important source for scholars in the history of medicine.[31]

Closely related to the lives of the Taki family members was the rise of the Igakkan under Mototaka, its flourishing under Motonori and Motoyasu, and its slow decline towards the end of the Tokugawa period, when it merged into the Otamagaike Vaccination Institute that later became the medical department of Tokyo University.[32] The Igakkan survived four big fires during the lifetime of Motonori and Motoyasu. The first blaze occurred in 1772, and Motonori, who became its head in 1766, asked for permission to rebuild it; this was granted in the following year.[33] The next fire broke out fourteen years later, in 1786, and the institute was again restored. It, however, fell victim to yet another blaze in 1791, and was again rebuilt with the partial financial support of Motonori, who became the director after a reorganization that had placed it under the direct control of the Bakufu the year before.[34] It was again affected by a big blaze in 1806, in which more than twelve hundred people lost their lives. The fact that the permission was granted to establish and then to rebuild the institute even after it had been destroyed several times by fire, is proof enough for Asami that the Taki family enjoyed considerable influence in shogunal circles.[35] On the other hand, these calamities also contributed to their impoverishment, which is described in *Shin enseki jisshu* 新燕石十種.[36] The role of the Igakkan, which was to provide the students with sufficient practical training to gain experience on the one hand, and to equip them with essential medical knowledge on the other hand, remained virtually unchanged even after it acquired

[29] Mori, 26.
[30] Mori, 26. We find an initial list of Motoyasu's and Motonori's commentaries on Chinese classics of Medicine, and Motoyasu's own works in the 'Japanese Empire's Biography of Famous Physicians' (Kōkoku meiiden 皇国名医伝), *ibid*., 27.
[31] Motoyasu pointed out some erroneous characters in a treatise that helped Yamada to trace the development process of decoctions as treatment forms; Yamada, 109.
[32] Asami, 824.
[33] *Ibid*., 820; the permission letter is included in *Tokugawa Kinreikō*, zenshū (前集) 3.
[34] *Kansei chōshū shokafu*, 182.
[35] Asami, 814.
[36] *Ibid*., 822.

official status, but it is still difficult to assess the extent to which the education it offered prospective physicians differed from that of private medical institutions.[37]

To conclude, the biographies of the Taki family members reveal their devotion to medical and philosophical studies, and their desire to provide a training facility for prospective doctors. Suzuki and others emphasise the accessible structures of the Bakufu regarding the medical posts that encouraged low-born physicians to make a career in medicine, noting that posts were not hereditary.[38] Indeed, compared to other posts within the Bakufu, it was likely that physicians who gained a reputation through their medical skills and knowledge could climb the career ladder, as we have seen in the appointment of two town physicians during the last days of Ieharu. The case of Motoyasu's demotion, on the other hand, shows that political considerations and decision making were at least as influential as medical skills and devotion to the medical profession.

On good physicians

The issue of medical qualifications was a problem that not only Tokugawa Japan had to deal with. There was a similar discourse in eighteenth-century Europe. John Wesley, for example, the founder of Methodism, distrusted the medicine of his time. He wrote a self-help book titled *Primitive Physick* (1747), in which he instructed his readers how to treat themselves with the aid of simple kitchen ingredients. He considered regular medicine unreliable and thought that people ought to take their health into their own hands. Similarly, Samuel Tissot, a Swiss Protestant, wrote *Avis au peuple sur la santé* (1761) with the intention of imparting medical education to peasants because he saw in their miserable health-care an important factor in rural decline. Both his handbook and William Buchan's *Domestic Medicine* (1769) were translated into many languages, and Buchan`s book even became the favourite health manual in Spain. Despite being a physician himself, Buchan criticised the medical profession in general as oligarchic and monopolistic. Instead, he emphasised the ability of ordinary people to treat their own disorders - not only chills and fevers, but also major conditions. Believing in the healing power of nature, he favoured simple treatments, and was convinced that diet, hygiene and temperance were more beneficial than expensive pharmaceutical preparations.[39] On the other hand, all these physicians held that ordinary people were unable to appreciate their own best medical interests, and consequently needed guidance from altruistic and paternalist physicians as they themselves were, and despite their belief that the

[37] About practical and theoretical training in the Igakkan before and after it became an official institution, see Machi 2013, 17-23.
[38] Suzuki A, 71-2.
[39] Porter 1995, 444-5.

people should take their health in their own hands, it was knowledgeable physicians like them who were best able to care for their wellbeing.[40]

In China of the Qing dynasty, by contrast, the amateurs saw themselves as corrective of the behaviour and skills of the doctors. Both doctors and amateurs were accusing each other of inability, and the amateurs regarded themselves as agents to uncover and disseminate useful therapies, making medical knowledge widely available so that people would not be at the mercy of doctors. They did not leave the dissemination of medical knowledge to the experts, but were also engaged in publishing, editing and compiling medical works, and – regardless of their skills – claimed the authority to judge what constituted legitimate medical knowledge.[41]

Sivin points out that medicine was perceived as 'the way of benevolence', emphasising not the cognitive but moral character of its foundation, and borrowed from political thought. With this expression the philosopher Mencius originally describes the ruler's natural concern for a living animal.[42] This and other descriptions, for instance, the comparison of the physician to a minister, and analogies with the redemptive mercy of bodhisattvas, suggest that clinical practice is an altruistic calling, and cannot be a mere livelihood.[43] We find this essential that Sivin mentions, the altruistic attitude that is nurtured by a compassionate heart, again in Motonori's works *Ika shokun*, in which he formulated his ideal of a good physician and defined the essential qualities the aspirant has to possess or gain. Although the foreword was already written in 1792, the book was not published until 1833, more than forty years after Motonori's death.[44] In it he emphasises two essential points as important prerequisites for his profession, which are closely linked: the right mindset and the specific skills. It is the right attitude towards the profession that is most important when choosing the path of a physician: "medicine is the art of benevolence or work that holds the power of life and death. If one does not feel obliged to undertake it or if one lacks the skill, then benevolence cannot be performed."[45] As Motonori makes clear by quoting a Chinese Confucian, the only function of medicine is to heal illness. The prospective physician cannot be a righteous person, whose aspirations are based on the Confucian virtues of loyalty, fidelity, benevolence and affection, if he is motivated by greed. No one, he explains, becomes a priest

[40] Porter 1992, 225.
[41] Wu 2010, 57.
[42] Sivin, 199; Meng tzu (The writings of Mencius), after 320 BC, HY, p'ien 6A.9, translated in D. C. Lau, Mencius, The Penguin Classics, p. 55.
[43] *Ibid*.
[44] A printed version is contained in the series *Kyōrin sōsho* 杏林叢書; Kosoto, 15. There is also an online version of the Tenpō-edition (1833) at http://www.wul.waseda.ac.jp/kotenseki/html/ya09/ya09_00051/ available. The latter one is used for this chapter. Both copies are incomplete.
[45] *Ika shokun*, 2a.

unless he wants to save mankind, and this cannot be achieved without developing a bodhisattva heart.[46] This particularly applies to those physicians whose main interest is to climb up the ladder and increase their salary; they greatly mistake the right path.[47] The second major point deals with the characteristics a physician should possess or gain. One feature is the importance of determination when doing medicine, and this determination again is based on the above-mentioned Confucian virtues. If one trains oneself not to be negligent in diagnosis and prescription regardless of the wealth and status of the patient, then there would not be any troubles and difficulties, Motonori assures his readers; and if one becomes so well-trained that one's weak and strong points become negligible, then one really makes progress, which is necessary if one wants to become a good doctor. It is just as important to stay receptive to new knowledge and to continue to study incessantly, even when one is experienced and has reached old age. The path of a physician is hidden and deep, and the changes in a disease are hard to estimate. Acting in such a manner would not only be for one's own sake but also for that of one's descendants.[48] For him, the most shameful thing for a doctor is to be unskilled.[49]

Motonori, however, does not confine his principles of compassion exclusively to the circle of doctors. Although it is crucial for a doctor to possess the right skills and attitude to perform his duty properly, for him it is nonetheless important to give as much practical help as possible to all, independent of status and rank. When it comes to help in the case of an emergency, it is not only the common man who lacks basic medical skills but the whole of society:

> [In the event of an emergency] warriors (*shi*) likewise ignore depletion and repletion symptoms (*kyojitsu* 虚実) of an illness and do not distinguish good medicines from bad ones, and by recklessly applying pills or moxa herbs they drain (*sha* 瀉) a depleted and supplement (*ho* 補) a repleted condition. As a consequence, they turn a person to be resuscitated into a dead body. However, if one treats patients according to the rules of medical care, death will turn into life. To take somebody's life by administering the wrong medicine means an untimely death, and that is indeed deplorable. Therefore even one dose of medicine or one cone of moxa – if not mistaken to a considerable degree – should give hope for life, and that is the reason why I made a selection [of remedies] in this book.[50]

[46] *Ibid*., 3a.
[47] *Ibid*., 6a.
[48] *Ibid*., 1a-b.
[49] *Ibid*., 4b.
[50] *Kokei saikyūhō* I, introduction, 1b-2a.

Yet he does not blame lay people for their lack of knowledge. He considered it important that everybody be able to read *Kōkei saikyūhō* - that is why he applied the Japanese readings to many Chinese characters.

> Those who aim to save life should read the text carefully beforehand and get its essentials, and furthermore, have it constantly at their side to be unconsciously prepared in case of emergency. If they do not read carefully beforehand and understand the essentials, they for sure will make many mistakes in the event of an incident which is comparable to a person digging a well after becoming thirsty.[51]

For Motonori, it was clear that knowing the Chinese classics on medicine was more likely to be restricted to the professional, since he considered the investigation into the roots of medicine as a great task, all the more as there were quite often mistakes in the formula books compiled by the diverse authors.[52] Although he described in detail the different symptoms of a disease and how to discriminate among them for the most suitable treatment, and thus made them accessible to the layman, it was the physician who remained the supreme authority. He clearly saw that he could not cover all diagnostic methods in his manual: "although it might seem that this edition covers most of the medical issues, but if a doctor comes, entrust him immediately and do not stick to the explanations in this book."[53] By explaining the diagnostic methods a physician in general has to apply, he draws a clear line between the task of an expert and the responsibility of an amateur:

> [The tools of diagnosis] consist in looking at the complexion of the patient and the vividness of his eyes, listening to the sound of his voice, asking about the condition of the disease, feeling his arterial and venous pulse and their frequency, further examining his stomach, abdomen and back down to the limbs, and searching for the presence of pathogenic agents. With these various diagnostic methods, by contrasting the signs (*shō* 證), confirming their difference, and looking for hidden ones, [the physician] determines what kind of disease it is.[54]

Yet these methods are necessary to perform health care successfully, and the "most difficult to realise was my wish that people who presently are unfamiliar with things medical become able to distinguish the disease patterns according to the explanations in this book."[55] The diagnostic method that identifies the skilful physician and distinguishes him from the layman and which Motonori refrains from explaining in *Kōkei saikyūhō* is the pulse:

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[51] A famous quote from *Yellow Emperor's Inner Canon* (*Huang ji nei jing* 黄帝内経); *ibid*., 2b.
[52] *Kōkei saikyūhō* I, introduction, 12a-b.
[53] *Ibid*., 10a-b.
[54] *Ibid*., 10a.
[55] *Ibid*.

> [Taking] the pulse is one of the four diagnostic methods of a doctor, and essential for determining the disease. Yet Wang Shuhe 王叔和 (265-316) of the Jin dynasty said that it is easy to reveal the innermost thoughts of the people, but it is difficult to reveal [the pulse] under the fingers. The more one familiarizes oneself with [the ability] to compose his mind and to get into a state of contemplation, the more one becomes capable in acquiring this skill.[56]

As is evident from his introduction, Motonori does not blame his fellow physicians for their wrongdoing or greediness; on the contrary, he carefully explains how complex and difficult the profession of a physician is and shows thereby the limits of a text in teaching the necessary medical tools to perform health care. What kind of medical knowledge do we therefore find in *Kōkei saikūhō*?

3. Popular and scholarly knowledge in *Kōkei saikyūhō*

Teaching the basics: medical knowledge in *Kōkei saikyūhō*

The main form of medicinal preparation in China and Japan until recent times took the form of pills (*gan* 丸), powders (*san* 散), decoctions (*tō* 湯), alcoholic drinks and oil mixtures. According to Li Gao 李果 (1180-1251), the difference betweeen these forms lies in the effect they have on the treatment of an illness, that is in the relative speed of their potency:[57]

> Generally, *tang* [decoction] means to stimulate, and is used in the treatment of serious illness. *San* [powder] means to scatter, and is used in the treatment of acute illness. *Yuan* (which becomes *wan* [pill] in the quotation of *Ben Cao Gang Mu*) means ‘slow’ or ‘gentle’, and cannot be used for immediate effect. It means to treat by means of gentle medicine.[58]

In fact, a closer look at *Kōkei saikyūhō* reveals that Motonori almost exclusively uses ‘decoctions’ and powders as medicinal preparations, and no pills except for the paste he recommends as prevention against suffocation by fire. They, however, were not the only means to treat illness; besides administering a medicine in the form of potions and decoction, also moxibustion, fumigation, poultice, manual manipulation, and even a ritual were used. Very often these different types of treatment were combined when curing an ailment. To demonstrate how this works, the treatment for “Sudden death due to unexpected fear” (*kyōfu sotsushi* 驚怖卒死) will be more closely examined. It not only gives an account of the only

[56] *Ibid*., 10b, Wang Shuhe is the author of the famous work on pulse diagnosis, the Canon of the Pulse (*mai jing* 脈経).
[57] Okanishi, 301; Yamada, 90.
[58] Li Gao, in *Materia medica for decoctions* (*Tang ye ben cao* 湯液本草), vol 1, compiled by Wang Haogu 王好古 (c. 1210-c. 1310); translated in: Yamada, *ibid*. I added the translations in the square brackets for a better understanding.

healing practice that includes a ritual-like form of treatment, but also shows the variety of different modes of healing while treating one disease.

> Sudden Death due to Unexpected Fear
>
> This disease may occur when one needs to go to the toilet or into the fields in the evening or at night. The place could also be an uninhabited house or an unknown location, where he suddenly perceives a strange figure and breathes in pathogenic air (*jaaku no ki* 邪悪の気).[59] All of a sudden he collapses, both legs and arms are getting cold, hands are forming a fist, the complexion turns pale and greyish, and/or fresh blood runs out of mouth and nose. The symptoms of this disease are similar to infantile convulsion and epilepsy in adults, but this ailment differs from the other two in the following way: in the latter cases, the person would suddenly scream when collapsing, whereas the person in this condition described here stays silent.[60]

The first-aid treatment Motonori recommends is a kind of incense ritual and it reads like this:

> The sick person should not be carried to another place but be left where he collapsed. All people, relatives and followers, gather around him, light a fire and throw into the fire a kind of incense such as benzoin (*ansokukō* 安息香) or musk (*jakō* 麝香). Wait until the person slowly regains consciousness, and then move him [to another location].[61]

Motonori further advises blowing gleditisia (*sōkyō* 皂莢), if available, into the nostril by using a bamboo tube before the ritual, and later recommends several potions depending on the availability of the ingredients:

> Medicine to administer
>
> Stir realgar (*oō* 雄黄)[62], available in a pharmacy, into equal parts of ginger sap and strong rice wine, bring it to a boil several times and drink it. Also beneficial is to grind five *bu* musk into one *gō*[63] of vinegar, stir and drink it. Or one takes the sap of Chinese chives and applies drops into the mouth and nose [of the sick]. Or pound acorus (*shōbu* 菖蒲)[64], that is the root of Acorus gramineus (*sekishōbu* 石菖蒲), which is widely cultivated in gardens, take the sap and let it be swallowed drop by drop. It is also beneficial to administer warm rice wine. Another method is to instill only a small amount of vinegar into the nostrils of the sick and to apply seven cones of moxa on the point *suibu* (水分), the illustration appears in Sudden Turmoil, and three cones of moxa on *inkō* (陰交); the drawing is in Yang Collapse. Or dissolve five *bu* each of cinnabar (*shinsha* 辰砂), available in a pharmacy,

[59] Jp. *ja* (ch. *xie*) is a general term for an exogene or endogene pathological factor that can evoke illness; Porkert 1973, 141.
[60] *Kōkei saikyūhō* I, 33a.
[61] *Ibid*., 33b.
[62] Also called *yūō*; Suzuki H., 413. According to Read it is a native disulphide of arsenic, not to be confused with orpiment, which is trisulphide of arsenic; Read 1937, 32-33.
[63] Ca. 180ml.
[64] On the different types of sweet flag see Suzuki H., 202.

> and bear gallbladder. How to discriminate the right product from a faked one appears in Faint due to Accumulating *qi* [in water], stir and administer it; it is also fine to use only cinnabar.[65]

In this example we find four different kinds of potion. These consist of the respective medicines together with rice wine, vinegar, sap and water, and a detailed description of their respective preparation methods. The problem of to what extent these potions can be considered as 'decoctions' or prototypes of decoction will not be further discussed in this context, but we will have a closer look at the treatment of moxibustion in order to demonstrate how he conveys the necessary knowledge, and to analyse the variations and possible origin of moxibustion.

Scholarly knowledge or traditional wisdom: moxibustion as an example

Moxibustion as the main or additional treatment is used in a total of sixteen cases. It plays a major part in the treatment of Wind Stroke, Sudden Turmoil and Beriberi Attacking the Heart.[66] As additional treatment we find it in Heat Stroke, Epilepsy, Nose bleeding, Sudden Pain in Chest and Abdomen, Bite Wounds by Diverse Insects, Death by Hanging, Drowning, and Cold, Penetration of a Snake into the Ear, Mouth, Nose, Anus, or Vagina, Pursed Mouth, Umbilical Wind and Fright Wind.[67] In all these cases moxibustion is applied on specific locations on the body, which are identical with the acupuncture 'points' (*ketsu* 穴). Thus the reader becomes acquainted with the proper names of forty-four points of which three now have different names.[68]

In the introduction, Motonori explains his approach to finding the appropriate method for the localisation of the acupuncture points. He first looked up the theories on how to locate the points in different books, and used the way it was done in ancient times as guidelines to consider if these methods were still applicable in his time. He further intended to give a kind of shortcut, a method by which the points are easiest to localise; but doing both, using the classics and applying shortcuts, was not achievable. Thus he decided to choose a method that makes it possible to impart the right locations in written form, and omitted those based on oral instructions, although they might be an accelerated way of determining the right spot.[69]

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[65] *Kōkei saikyūhō* I, 34a-b.
[66] For moxibustion in Wind Stroke, see *ibid.*, 6a-13b; in Turmoil *ibid.*, 36b-43b; in Beriberi Attacking the Heart, *ibid.*, 62a-66b.
[67] See *ibid.*, 23b, 72a; *Kōkei saikyūhō* II, 17a, 33b, 77b-78a; *Kōkei saikyūhō* III, 7b, 10b, 13b, 32b, 83b, 85b, 90a-b.
[68] For a list of acupuncture points and their application see table IV in the appendices.
[69] *Kōkei saikyūhō* I, introduction, 11a-b.

The following illustration exemplifies the way Motonori explains the locations of the points:

Fig. 12. *Kōkei saikyūhō* I, 19a

> The point *chūkan* is located four *sun* under the 'branching bone' or four *sun* above the navel on the front of the body. Measure the space between the 'branching bone' and the centre of the navel with a straw, locate the spot in the middle by the measurement method with which the straw is folded into eight parts, which will be defined as eight *sun*: this will be the point. The 'branching bone' is the spot where the pit of the stomach is located and where the bone looks like this: ∧
>
> This is the 'branching bone'.
>
> This is the point *chūkan*.
>
> This is the navel. One should start the measurement from the centre of the navel.[70]

Apart from moxibustion on selected points, Motonori also describes a kind of cauterisation on affected parts of the body. Depending on the circumstances in which the affected person finds himself, Motonori draws on substances within easy reach that are to be burned on the skin. This might be excrement in nutshells as we will see later or simply gunpowder. This kind of treatment suggests that moxibustion performed on other locations than acupuncture points can be regarded as a non-standard but popular form of treatment.

[70] *Kōkei saikyūhō* I, 19a.

Local medicines versus general medical knowledge

Tsukamoto takes up Motonori's remark in the introduction to *Kōkei saikyūhō* that he selected the most efficacious remedies from classical and popular sources, and claims that therefore many recipes in *Kōkei saikyūhō* derive from non-classical Chinese sources containing local medical knowledge. What do we understand by this and in which ways does this local medical knowledge differ from 'classical' treatment?

In order to demonstrate the different understanding of the origin of a treatment method, the case in which a person gets bitten by a mad dog shall be analysed more closely. Motonori presents two different settings: the first one is at the patient's or other person's home, with a range of medicines available, and the second one is in wild nature away from any settlements. To begin with the first case, he advises the carer to immediately squeeze out a significant amount of blood from the wound first of all, and in cases, where not much blood comes out, to promote the outflow by piercing with a needle around the sore. Then, depending on the location of the bite, the wound has to be washed out with urine. The more people urinate on the wound, the better. Next,

> divide a walnut into two parts, throw away the contents and fill the parts with human excrement. If there is no walnut available, cut a bamboo into rings, fill them with human excrement, and apply moxa. By facing downwards, cover the wound therewith, and upon it burn down moxa that is kneaded together to a big [cone]. It would be good to apply about a hundred cones that day. Since the moxa cones are big, the walnut shell will get burned and the excrement dried up. If this happens, apply moxa by changing them many times. After moxibustion grind apricot seeds (*kyōnan* 杏仁) - this is the kernel in the apricot fruit, available in a pharmacy - to a sludge-like paste, therewith seal the wound firmly by applying it heavily, and wind it firmly with some cloth or a piece of cotton. Ideally, blood, water and such like will run out of the wound. Remove the apricot paste the next day, and continue with moxibustion as previously done; thereafter grind copper sulfate (*tanpan* 膽礬), available in a pharmacy; it is used to prevent ironware from corrosion. Sprinkle it on the wound and dress it. Thereafter, wash off the copper sulphate with rice wine and apply moxa, and after moxibustion put on again some more copper sulphate. [Repeat] every day, for about six or seven days. As long as blood and water come out, apply about a hundred cones of moxa every day; when it ceases, discontinue with moxibustion, remove the copper sulphate, and use again the apricot seeds just as done at first.[71]

For treating women and children, he suggests a more gentle treatment by omitting the application of copper sulphate and instead using apricot seeds and welsh onion (*negi*).[72] He strongly recommends that the patient follow his instructions and stick to a special diet;

[71] *Kōkei saikyūhō* II, 88a-89a.
[72] *Ibid*., 89a.

otherwise the disease would break out again. All of his listed recipes are efficacious, he claims, provided that the bite wound is correctly treated. Otherwise, he warns, if the poison is not extracted, the patient will die in the end. In such cases, even a good doctor is helpless. The same applies to an initially correct treatment: if the patient does not keep strictly to a special diet, which he explains in the following section, the disease will flare up again. It is therefore essential to be very cautious from the beginning of the treatment, since the chance of finding a good doctor is very small in remote areas.[73] He further explains how to distinguish a mad dog from one that is not infected and how to defend oneself if attacked.

The treatment differs slightly for people who get into this situation while being "in the fields and valleys where one has access neither to the above mentioned medicine nor to people."[74] In this case "one first has to urinate over the affected part, dab it away with something thin like a piece of paper, and stab the wound with a knife. Then, chew the gun powder which is in the rifle, put a huge amount on the wound and ignite it with a fuse. The shot will cast out the poison. When having returned back home, apply the above described recipes."[75]

However, with reference to the second example in which the person is attacked far away from any human habitation, Tsukamoto concludes that this kind of treatment has to be regarded as too violent as to be mentioned in a classical Chinese medical textbook, and is therefore more likely to be considered as deriving from popular practice. Indeed, many of the remedies and much of the advice Motonori mentioned in the first example are identical with what is recommended in *Ji jiu liang fang*[76] - and there is no mentioning of the application of gunpowder at all.

[73] *Kōkei saikyūhō* II, 91a-b.
[74] *Ibid*., 90a.
[75] *Ibid.*, 90a-b.
[76] See also chapter two, table 2.

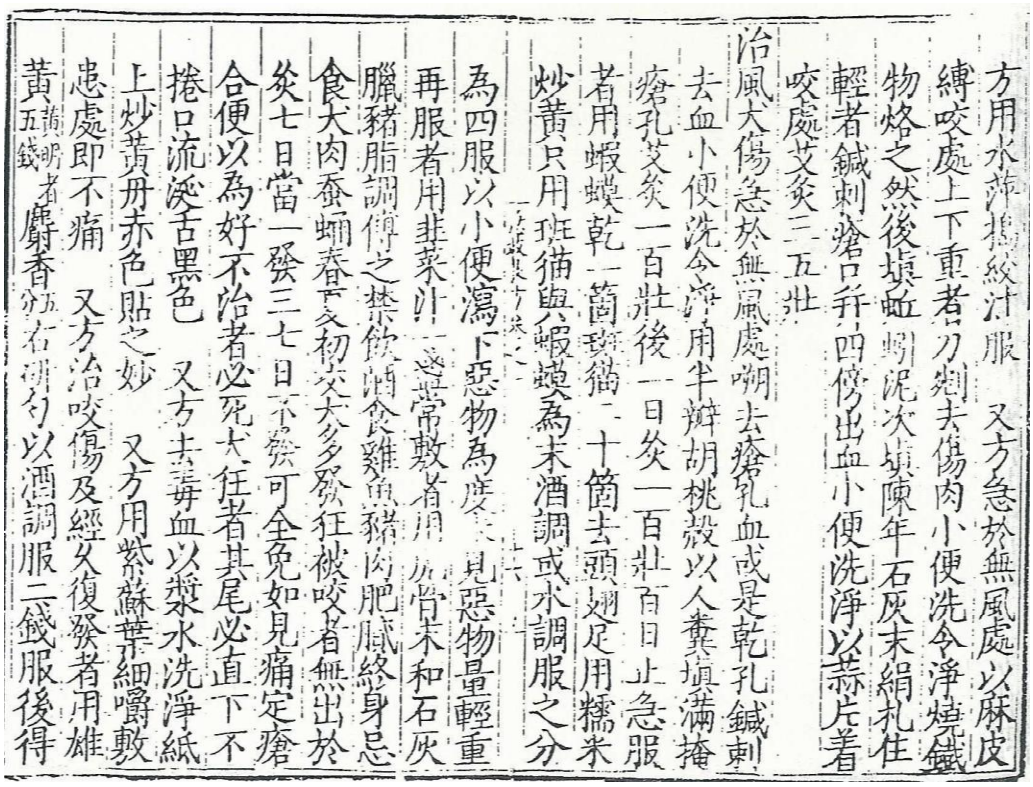

Fig. 13. *Ji jiu liang fang* I, 16

Starting at the sixth line of the above extract of *Ji jiu liang fang* we read:

> The way of curing a dog bite has to be fast, otherwise the person will die. The wound should be bloody; if the wound is dry, pierce with a needle and remove the blood by washing it out with urine to make it clean. Fill the half of a walnut shell with human excrement, cover up the wound and do a hundred cones of moxa. The next day do another hundred times and stop after hundred days. […].[77]

The passage continues by listing remedies for immediate intake and in light cases, goes on with food not to be eaten, and explains in short what a mad dog looks like. These are all aspects that Motonori mentions as well but in a more detailed and elaborate way, and with another selection of remedies. One of Motonori's main medicines for the cure appears in the last line of the following passage:

[77] Zhang, *Ji jiu liang fang* I, 16; in *Si ku quan shu cun mu cong shu* 四庫全書存目叢書, *zi bu* 子部 43, 459.

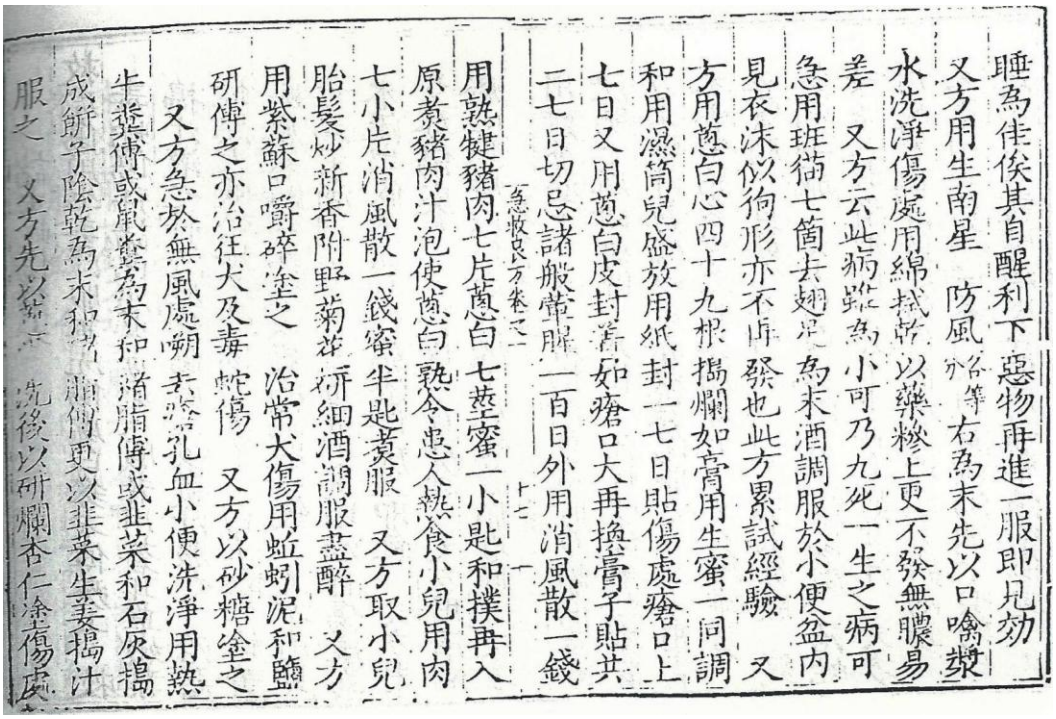

Fig. 14. *Ji jiu liang fang* I, 17

> Another method is […] after having washed the wound grind apricot kernels and put them on the injured skin.[78]

Tsukamoto points out that information on mad dogs and the respective treatment methods were numerous in classical Chinese medical literature, and admits that many of these treatments indeed very much resemble Motonori's advice to enhance bleeding of the wound and to do a cauterisation treatment by putting a cone of ground apricot kernels in the size of a mochi on the wound.[79] Yet the fact that rabies was unknown in Japan before the 1730s supports his claim that some of the recipes are of local nature.

The first confirmed record of rabies in the history of Japan dates from the years 1735 to 1736. In the accounting records of Aizu domain (*Aizuhan kasei jikki* 会津藩家世実記), we learn that in the winter of 1736 Edo suffered from a disease in which dogs became ill, recording that people who got bitten by these dogs also became ill or even died. Fearing that it could spread to Aizu, the domain ordered prayers (*kitō*) to be performed.[80] Another record told of the same events, narrating that in Yamashiro a 'dog epidemic' (疫犬) occurred, and it happened very often that people got bitten by dogs. Even when they were only slightly injured, they developed a high temperature and died within two or three day, or sometimes after several days. This expanded to Ise region, and in Aizu it was extraordinarily awful. In spring

[78] *Ibid*., 17, in: *Si ku quan shu cun mu gong shu, zi bu si san*, 43-460.
[79] Tsukamoto 1991, 225-6.
[80] *Ibid*., 221.

and summer the following year, it spread to the crossroads around the Tōkaidō main route, and the villages around Osaka, to arrive in Edo in autumn.[81] Other unconfirmed sources speculate that it started to spread in Kyūshū coming from abroad, but apart from the route the epidemic took, it evidently was a disease unknown to Japan. This caused considerable problems, since there was no experience in how to cope with it. The countermeasures in Aizu were prayers, and the people in Osaka tackled the problem by wearing protective amulets. A very prompt response came from Noro Genjō who wrote a small booklet called "Treatment for mad dogs' bites" (*Kyōken kōshō chihō* 狂犬咬傷治方) that was quickly published in 1736 containing countermeasures. In the introduction Genjō describes the course of this outbreak saying that it was an epidemic not seen in the country before, which started to spread in Kyūshū, moved to the Kansai region and then reached the east of the country. He warns the reader not to be neglectful. If the bite wound is severe, the people affected die in two to three days, but if the injury is rather superficial, the people would take it lightly, thinking they would recover soon and consequently neglecting treatment. The wound however worsens after a couple of days, and eight or nine out of ten cases eventually die. A prompt treatment is therefore essential. Genjō also refers to Chinese medical books mentioning that they contain many formulae for internal and external use, and his recommendations of a special diet, in which certain food is not allowed to be eaten and is to be strictly followed, closely resemble the advice given in *Kōkei saikyūhō* .[82]

According to Tsukamoto, this is not surprising, since Motonori obviously adopted passages from Noro's book on rabies and Takebe's manual on famine relief without changes. Yet, Tsukamoto adds, the advice to urinate over the wound and then to treat it with gunpowder is not contained in these books. Other treatment manuals deal with cauterisation to prevent the poison from penetrating the body, but not in such a 'violent' way. Therefore, he concludes, this must be an indigenous method resulting from occasions in which the people involved in hunting encountered a mad dog or cat, so this idea to blow off the wound may have originated there.[83] Moreover, his assumption that many recipes in *Kōkei saikyūhō* are of Japanese origin is supported by the reference to another recipe against rabies, in which a tea is made from the flowers or leaves of the Japanese azalea, claiming that this kind of recipe is rarely seen in other works.[84] Similar recipes appeared after the publication of *Kōkei saikyūhō* in *Zuihitsu*-literature such as *Mimibukuro*, but according to Tsukamoto this information was

[81] *Mikikigusa* 視聞草, in Tsukamoto 1991, 221-2.
[82] *Kyōken kōshō chihō*, 3b-5a; Tsukamoto 1991, 221-4.
[83] Tsukamoto 1991, 230-1.
[84] See *Kōkei saikyūhō* II, 85b, 87a.

unlikely to have originated from Motonori's text, since in these books it is claimed that such a tea originates from traditional recipes of Shinshū (nowadays Nagano prefecture).[85]

The violent form of treatment, cauterisation by using gunpowder, that Tsukamoto considers to be of local origin, might not be found in Chinese classics of medicine, but we find a similar way of treatment in two of Galen's treatises. The bite of a mad dog, he says, is first treated with acrid drugs or with cauterization of the wound, which has to be enlarged and kept open for forty days and dressed with a preparation of *Picis brutiae*, the sap of Opopanacis, and vinegar.[86] He does not explain the material with which this cauterization has to be done, but apart from the choice of medicine, the way of treating a bite wound resembles parts of the treatment Motonori recommended. May we therefore conclude from this example that treatment methods which are considered to be local are in essence universal, with the medicines differing only depending on the cultural background and the natural environment? Or are these ways of treatment just the most effective ones among the many possibilities for treating an injury caused by a mad dog? Alternatively, are there only a small range of options for treating such a serious disorder? May we perceive in this rather rough type of treatment, which Galen calls cauterization, a prototype of moxibustion from which the different ways of applying moxa evolved?

As to Yamada, moxibustion, by which material other than mugwort is used and the afflicted area is seared directly, is already mentioned in the oldest Chinese medical fragment *Prescriptions for Fifty-two Diseases* **(***Wu shi er bing fang* 五十二病方).[87] In that work, moxibustion is performed on a wart using straw or bulrush from a straw carpet or mat, but the same source also mentions a moxibustion treatment on channels or meridians.[88] There, moxa, in which waste of hemp is wrapped, is applied on the top of the head to increase its effect.[89] These two applications show a certain degree of similarity with the moxa treatment in *Kōkei saikyūhō* in terms of the location in which the treatment is performed, and the material with which it is done. Could there be a connection between these two types of treatment? In his study into the origins of acupuncture and moxibustion Yamada sees no connecting principle

[85] *Ibid*.
[86] Translation by Iskandar, in: Galen, 173. Galen, who favoured internal medicine over surgery, chose this example as a demonstration how to test a good physician: he would make a recovery by medicaments alone; *ibid*., 123, 141.
[87] On the *Wu shi er bing fang*, see Harper 1982 and 1998.
[88] The path through which the 'life-energy', *qi*, flows and connecting acupuncture points is called channel or meridian in Chinese medicine.
[89] Yamada, 66.

between these two types of treatment, and it therefore cannot be concluded that the wart treatment is a derivation from or a former form of the channel therapy by moxa. [90]

Conclusion

The examination into the practise of moxibustion reveals that this kind of treatment was part of basic medical knowledge in three different settings: in the oldest Chinese medical fragment and later in a Ming work; in the treatises of an ancient Greek physician, and finally in *Kōkei saikyūhō*. We can be sure that Motonori was less interested in the origin of treatment types. For him the foremost desire was to provide as many options for healing as possible, and have them presented in such a way that they could be understood by everyone. This equally applies to the acquisition of medical knowledge as such. Although Motonori complained about the shallow knowledge of his fellow physicians, in *Kōkei saikyūhō* we do not find any degrading statements or other derogatory references to other medical practitioners or even amateurs; on the contrary, he has considered it as equally important to provide the reader with the essentials of diagnosis to enable him to act promptly in case of emergency. However, the basic question remains as to what degree the manual became widely diffused in the lives of the people. It is also still unclear whether it had an impact on their lives or whether the people relied more on other sources of medical knowledge; these issues will be tackled in the next chapter.

[90] *Ibid*. Unfortunately, he gives no further explanations why they have to be considered as two different treatment types.

Chapter Six: The wider context: public health and medical literature

In view of the fact that the Bakufu intended to perform public health by the distribution of a text, we have to ask the question as to how far in practice did a manual such as *Kōkei saikyūhō* reach the general populace. We also have to consider the contribution and influence of other manuals and books, such as household encyclopaedias, on the dissemination of medical knowledge. In this context, we need to enquire into the state of health care in the domains in order to more fully understand Motonori's intention of providing medical help in situations in which a physician was unable to be present, both in the cities and in the countryside. This chapter thus brings together the different strands of dissemination. Firstly, I will begin by exploring the contribution of household encyclopaedias in imparting medical information; then, I will discuss the part played by the domains and lending libraries in providing and disseminating medical knowledge, and their role in providing public welfare by examining a pioneering work of popular medical literature, *Kyūmin myōyaku*, which was distributed under the aegis of benevolent governance. Finally, by contrasting this work and *Fukyū ruihō* with *Kōkei saikyūhō*, I aim to reveal the characteristics and peculiarities of Motonori's work and its potential impact in setting new standards in educating people in health matters that enables them to be prepared in medical emergencies.

Porter points out that medical popularisation cannot be studied without taking into account the development of printing in general and therefore the rise of a book trade, and the spread of formal schooling and standardized education, including both reading competence and acceptance of the authority of books.[1] Similarly to Europe, the advancement of printing led to a booming book market in China and Japan, which was also an essential element for the dissemination of knowledge. Yet the tools for acquiring medical knowledge in China and Japan varied according to the specific circumstances.

1. The role of encyclopaedias and almanacs

As we have seen in the previous chapters, in China, as early as the Song dynasty, efforts were made to establish institutions to coordinate various initiatives under the name of benevolent governance, of which the publishing of medical texts was the major enterprise. According to a study by Leung, this changed from the Ming dynasty onwards, when medical knowledge that was not ratified by any formal authority became more accessible. She also points out that at the same time, no national or professional institution exerted any standard teaching program;

[1] Porter 1992, 4.

nor was there any academic body that set the norm for medical learning, despite the crystallisation of the medical scholarly tradition in the thirteenth century.[2] One of the most influential introductory textbooks on medicine of that time, which also had a great impact on Tokugawa- period Japan, was *Introduction to Medicine* (*Yi xue ru men* 医学入門) written by Li Chan 季梴 (late sixteenth to early seventeenth century), and published in 1575: Afterwards, at least five more editions were printed, and during the Qing the number of editions reached thirteen. In Japan, it went through at least sixteen editions during the Tokugawa period.[3] From the inventory *Isshūdō kazō ishomoku* (1807) we know that the Taki family possessed an edition published in the reign of the late Ming emperor Chongzhen 崇禎 (r. 1627-1644). The catalogue does not exactly state the year of its publication, but it is likely to have been published around 1644.[4] Another very successful textbook was produced in the Qing dynasty. It is called *Understanding the Essence of Medicine* (*Yi xue xin wu* 医学心悟), and was written by Cheng Guopeng 程国彭 (1680-1733). It was first published in 1732, and reprinted at least twenty-six times. The first chapter begins with the poem *Rhymes on a hundred mistakes in medicine* (*Yi zong bai wu ge* 医中百誤歌), which is still popular in China today.[5] Medical texts in verse and rhyme were published as individual texts or were incorporated into introductory medical textbooks, family encyclopaedias or almanacs (*lei shu* 類書). These were primers on the nature and uses of drugs or on pulses and the channels.[6] Usually, they were written by doctors primarily in order to train their students or for the benefit of beginners in medicine in general. These Ming-Qing encyclopaedias, such as *Extensive Record on the Grove of Matters* (*Shi ling quang ji* 事林広記) or *Complete Collection of Ten Thousand Treasures* (*Wan bao quan shu* 萬宝全書) contained long sections on medical matters.[7] Although medical primers in the Qing dynasty were characterized by a further simplification of language and context with the emphasis on pragmatic and clinical approaches, this does not imply a decline of 'Confucian' ideological influence in these texts. Well into the late Qing, elite doctors still claimed their Confucian affiliation in order to distinguish themselves from vulgar doctors, by comparing the role of medical classics to Confucian classics.[8]

Encyclopaedias and almanacs therefore played a fundamental part in the transmission of medical knowledge in China, which culminated in a new form of primers for self-taught

[2] Leung, 131.
[3] Leung, 135, see also Jin and Jin, 133.
[4] *Isshūdō kazō ishomoku*, unpaged.
[5] Leung, 138.
[6] *Ibid*., 139.
[7] *Ibid*., 143.
[8] *Ibid*., 136.

readers at the beginning of the nineteenth century. These were primers in verse form, of which *Medical Trimetrical Classic* (*Yi xue San zi jing* 医学三字経) by Chen Nianzu 陳念祖 (1753-1823) is the most famous. Produced especially for the commercial market, Chen Nianzu's short and easy primers were bestsellers, and are still used today in China by amateurs and beginners.[9] Leung assumes that these texts were consumed by literate general readers, as well as by those who wanted to undertake medical practice as a profession or as a hobby. She further states that neither the state nor the medical profession itself played the role of controlling or monopolizing medical knowledge and training. Any literate person in late imperial China could have had easy access to a reasonable amount of medical knowledge by reading such inexpensive texts, and could apply his or her knowledge to the sick. The dangers inherent in this popularisation process were often mentioned by the elite and by officials, and frequently formed the subject of derision in popular literature.[10]

Can we perceive a similar trend in Japan? There, household encyclopaedias developed from a genre of dictionaries called *setsuyōshū* 節用集 and *ōzassho* 大雑書. The genre *setsuyōshū* can be translated as 'Collection for economising tasks' or 'Collection for occasional use', and was originally compiled as a reference Japanese-Chinese dictionary in the mid-fifteenth century. From the late seventeenth century onwards, they contained additional pages with useful knowledge for daily life. This consisted of information on rules of etiquette covering almost every aspect of human activities, such as how to blow one's nose or detailed instructions on how to write an official document or a letter. It also contained advice on how to avoid certain days and directions when planning important activities.[11] The latter function, that is, the display of 'auspicious and inauspicious' (*kikkyō* 吉凶) days and directions in a year together with divination techniques for predicting the future, was the main task of the genre of *ōzassho* or "Great book of miscellany".[12] Its focus was more on the natural world that was animated by all kinds of beings and gods in contrast to the more secular side of life represented by the *setsuyōshū.* This emphasis inspired Yokoyama to label the *ōzassho* as a genre of literature that instructed its readers in civility towards non-humans, whereas the *setsuyōshū* taught its users civility towards other humans.[13] Yet the *ōzassho*, too, developed into an encyclopaedia for daily life towards the end of the Tokugawa period,

[9] *Ibid*., 144-5.
[10] *Ibid*., 149; see also Wilt Idema, "Diseases and Doctors, Drugs and Cures: A Very Preliminary List of Passages of Medical Interest in a Number of Traditional Chinese Novels and Related Plays", *Chinese Science* 1977.2: 37-63.
[11] Yokoyama, 44-45.
[12] Hashimoto 1996, 207.
[13] Yokoyama, 44.

containing for example explanations regarding all types of mantic practices, astronomical data, or meteorological phenomena.[14]

For the user of these encyclopaedias forecasting the future was not a matter that had to be accepted fatalistically. One could, in one way or another, avoid misfortune by reversing it, and therefore turn inauspicious days into auspicious ones. This was done by "charms" (*majinai* まじない) or "medicines" (*kusuri* くすり). In order to escape inauspicious events or actions that led to undesired results, people wrote characters or drew pictures on paper or small pieces of wood, which they carried with them or stuck on a pillar or swallowed down. Hashimoto sees in such actions or behaviour a kind of parallel to the act of taking medicine to correct or avoid an imbalance of the body. The physician who let his patients drink various substances to dispel disease was thus called "master of medicine" (*kusushi* 薬師). For an ordinary person he was a "miraculous master" (*kusushi* 奇師) in the sense that he performed mysterious techniques. Due to their identical pronunciation Hashimoto therefore concludes that spells and medicine were placed on the same level.[15]

We have more definite knowledge about charms from the middle of Tokugawa period onwards, when printing culture advanced. Early spell books included "Rules of how to vanquish spirits with secret charms*"* (*Himitsu jugon hōsoku* 秘密呪禁法則) from 1684 or "Record on incantation methods*"* (*Juchō hōki* 呪調法記) from 1699. When these books appeared on the market, parts of them were quickly incorporated into the *ōzassho*. The first time a section entitled 'spells' appeared in an *ōzassho* was in "Manual of items collected from three generations*"* (*Sanze sōshūi kōmoku taisei* 三世相拾遺綱目大成), published in 1714. These were, for example, a spell for ensuring a good relationship between husband and wife, a spell for men suffering from a violent temper (*otoko no okoriyamai no fū* おとこのおこりやまいの符)[16], a spell for deafness that had to be swallowed and a charm against retention of urine or stools.[17] All in all, the manual lists thirty-seven items, of which none contains anything like medicine in the sense of materials taken from nature such as herbs, bark, animals or minerals.[18]

This changed with the "Newly edited encyclopedia of the Hōreki period*"* (*Shinsen hōreki ōzassho* 新撰宝暦大雑書), published in 1724, in which drug names appeared for the

[14] Leinss, 28; Hashimoto 1996, 147.
[15] Hashimoto 1996, 207.
[16] The term *okori* also means ague but is translated here as anger, since it does not make any sense that only men would suffer from ague.
[17] Hashimoto, *loc.cit.*
[18] *Ibid*., 208.

first time. Therein, under the heading 'All wonder drugs', actions against various diseases are described. A medicine to cure running ears, for example, is the radish, of which a paste is to be made that is put on the edge of a small piece of paper which is then inserted into the ear. But there are also medicines that are applied together with spells, and since most parts of the above mentioned spell-book *Juchō hōki* were incorporated, the prescriptions were fairly mixed up with magical symbols. However, the publication of the "Household encyclopaedia for long life and prosperity*"* (*Banzei ōzassho* 萬歳大雑書) in 1801 marked a change in the contents by incorporating items from a medical manual called "Record of wonder drugs against all diseases*"* (*Manbyō myōyakuden* 万病妙薬伝). This encyclopaedia lists about seventy diseases, and additionally gives a detailed description of medicines regarded as efficacious. In this manual no charms or spells are mentioned. There is, however, another entry titled 'spells and wonder drugs', which explains the use of panaceas but again does not refer to any magic symbols or letters. An entry for 'spells' does exist in earlier encyclopaedias, but it contained only four items.[19] Hashimoto explains the separation of medicine from magic and eventually the disappearance of the latter with reference to the 'rationality' of Confucianism, but he also admits that its final omission might simply reflect the view of the compiler or the common sense of the people.[20] The role which household encyclopaedias played in providing the reader with the essentials of medical knowledge is not entirely clear since this field is not yet sufficiently researched, but as we have seen in the example of *ōzassho*, medicine became an increasingly important part of these encyclopaedias.

2. The role of the domains and lending libraries

In China, medicine as a state institution underwent a long period of decline after the Song dynasty. The Ming and Qing governments selected and trained doctors at the central level only to serve the imperial household, and the 'regional bureau' that used to train doctors at the local level lost most of its functions.[21] In Tokugawa Japan, on the other hand, medical learning and the provision of welfare advanced on both local and state levels. In contrast to governmental inactivity in Qing China regarding the dissemination of medical knowledge and supervision of medical training aimed at a countrywide provision of medical care, the Bakufu launched various projects that have already been discussed in the previous chapters. An example of official attempts to provide and control medical knowledge and training under the ideological auspices of Confucianism in Japan was the aforementioned *Igakkan* as a central

[19] *Ibid*.
[20] *Ibid*., 209.
[21] Leung, 147.

institution.[22] The Bakufu was not, however, the only driving force in providing medical care. The daimyō domains (*han* 藩) as units of local governance also played an active role in public welfare and medical education, as Yamazaki has shown. His results are summarised in the following table (status as of the closing days of the Tokugawa shogunate): [23]

Table 6.1: Medical schools in the domains

Domain schools in which medicine was taught	36 domains
Domains that underwent medical education other than the above-mentioned ways	20 domains
Domains that sent their students to other domains for medical study	16 domains
Domains in which Western medicine (*ranhō* 蘭方) was also taught	18 domains
Domains in which Western studies (*yōgaku* 洋学) were also taught	4 domains
Domains in which a physician built up a private institute for medical studies	14 domains

These figures tell us that, independently of the Bakufu institutions and depending on the driving force of the individual domain, places for the acquisition of medical knowledge were established, and this knowledge could be obtained either in a domain school as part of the curriculum or in a medical institute established by or with the consent of the domain daimyō. There was, moreover, the chance to learn Western medicine, which gained increasing influence in an environment that was still dominated by Chinese medicine. Another study has shown that these institutions were established from the mid-eighteenth century onwards, with Kumamoto domain as the first domain in 1756 and Fukuyama and Kanazawa domains as the last ones in 1854. For Kanazawa, it was the second such institute, this time focussing on Western medicine. All in all, of about 290 domains almost 100 were involved in medical studies.[24] How far these institutions contributed to medical knowledge and medical education is difficult to assess at this stage; however, as Kornicki has pointed out, it shows that provincial Japan was far from being backward. For example, the *kokugaku* scholar and physician Motoori Norinaga 本居宣長 (1730-1801) was active in Matsuzaka and the botanist and scientist Itō Keisuke 伊藤圭介 (1803-1901) in Nagoya.[25]

These domain institutions were also active in publishing texts. The Yonezawa, Ōgaki and Mito domains, for instance, published books dealing with public welfare which gave preliminary instructions in cases of famine or offered guidelines for self-treatment. In response to the experience of the Tenmei famine in 1783, the daimyō of Yonezawa, Uesugi

[22] The process of establishing the *Igakkan* as an official institute is also documented in *Tokugawa kinreikō* 3.27, 423-30.
[23] Yamazaki, in Yoshioka 1989, 90.
[24] The figures are from Ogata; Yamazaki assumes that out of 272 domains eighty-nine were linked to medical studies, in Yoshioka 1989, 91.
[25] Kornicki 1990, 190.

Harunori 上杉治憲 (1751-1822), launched a project as part of a reform to avoid further calamities, which included the compilation of a guidebook describing plants and fruits that can be eaten together with or as surrogate for grain. It was published in 1802 under the title "Famine food*"* (*Katemono* かてもの), with 1575 copies to be distributed to the households of the domain.[26] In 1806, "Introduction to sericulture*"* (*Yōsan tebiki* 養蚕手引) was published to instruct the domain's population in breeding silkworms. We find similar activities in welfare and prevention in the Ōgaki domain, which published "Proper famine relief" (*Kyūkō jigi* 救荒事宜) in 1806.[27] The most prominent example of medical engagement, however, is the publication of *Kyūmin myōyaku* launched by the Mito domain daimyō Tokugawa Mitsukuni, a booklet that – according to Inami - kept its importance well into the Meiji period.[28]

2.1 Jinsei-activity in the domain: the example of Kyūmin myōyaku

Japanese scholars such as Watanabe or Inami tend to mark the publication of *Kyūmin myōyaku* as the beginning of benevolent governance in the Tokugawa period. How influential this booklet in reality was for the shaping of a consciousness within the concept of *jinsei* and its impact on the readership will be analysed in the following. *Kyūmin myōyaku* was written by the Mito-domain physician Hozumi Hoan 穂積甫庵, also known by the name Suzuki Sōyo 鈴木宗与 (second half of the seventeenth century), and published in 1693 by a Kyoto publisher. Being a small-formatted booklet it contains only sixty-four double pages and was sold for one *momme*. It consists of easy-to-read explanations for the preparation of mostly herbal medicines but lacks any descriptions of symptoms or illustrations of herbs. According to the author's foreword, he wrote down herbal knowledge based on experience that had been passed down from generation to generation. In most cases, the medicines are to be administered in the form of potions; there is, however, no indication of quantity or any detailed explanation of how to prepare the medicine. The intention of the booklet is to provide help for common people with no medical knowledge. The foreword uses the same argument found in the *Tokugawa Jikki* for *Kōkei saikyūhō*. It says,

> when lowborn and poor people from the mountains and fields, where there is neither a doctor nor medicine, become ill and have to lay down, [they can only] wait to recover, and those who do not recover die or become disabled. This is an untimely death for all of them. Therefore, I humbly received the order from my lord to gather simple methods with easy-to-obtain [medicines] by which they can be saved. I [therefore] collected 397 simple recipes that are suitable for these diseases in

[26] Kasai, 129-30.
[27] *Ibid*., 298-9.
[28] Inami, 3.

> these locations and gave this collection the name *Kyūmin myōyaku*. When given to those living in remote places I hope it will be helpful for the relief of many people.[29]

Unlike *Kōkei saikyūhō*, of which the extant copies suggest that only one edition was published in 1791, *Kyūmin myōyaku* was evidently far more popular given the number of reprints. In 1723, the Bakufu decided to append an improved edition of *Kyūmin myōyaku* to *Gikō kōjitsu* 義公行実, a record on Mitsukuni's achievements, which was finally published and disseminated in 1745.[30] There was further an enlarged and revised edition in 1806 under the title "Revised and enlarged collection of excellent remedies for helping the people" (*Zōho kyūmin myōyakushū* 増補救民妙薬集). We further find an extract of it in the "Compilation of the eternal encyclopaedia on the perpetual calendar, newly revised in the Tenpō period (*Tenpō shinsen eitai ōzassho banreki taisei* 天保新撰永代大雑書万暦大成) of 1842, where forty-eight of the first eighty-four diseases are listed.[31] It is not clear on what criteria the selection of the diseases was based, and it appears that the publisher had randomly chosen them based on the availability of space in the encyclopaedia. In this edition of the encyclopaedia the general part was substantially expanded; from the earliest extant edition of 1693 that covered 136 entries, it rose to more than 333 entries and continued to be reprinted well into the twentieth century.[32] On the basis of this expansion Hashimoto argues that the *ōzassho* gradually developed into an 'encyclopaedia for daily life' (*seikatsu hyakka zensho*).[33] In this new function, passages of *Kyūmin myōyaku* had the potential to reach a large audience. In order to explain why *Kyūmin myōyaku* might have proved so successful I shall now turn to a close examination of the contents.

The booklet contains 129 entries with the names of diseases and the application of roughly 400 different medicines, and at first glance it covers about the same range of ailments as *Fukyū ruihō* and *Kōkei saikyūhō*, although in a much more abbreviated way. Nakayama has remarked that the contents reveal a vivid reflection of the ailments from which people were prone to suffer. He argues that, for example, the high number of medicines recommended for snake-bite might be an indication of the high frequency of snake-bites, and that the remedies contained in *Kyūmin myōyaku* might therefore reflect the injuries and sicknesses that were

[29] *Kyūmin myōyaku*, foreword.
[30] Nakamura, 16.
[31] *Tenpō shinsen eitai ōzassho manreki taisei*, 156-167; the foreword is from 1838; Hashimoto 1996, 188.
[32] The several editions held at the National Diet Library, which were reprinted between 1880 and 1977 [sic!], kept all the original title, only the additional 'newly revised in the Tenpō period' was sometimes put at the end of the title; the title of the edition published in 1939 contains the supplementary information 'revised in Shōwa period', Leinss, 28.
[33] Hashimoto 1996, 147.

likely to occur at that time.[34] However, the same can be assumed for *Fukyū ruihō* and *Kōkei saikyūhō*. In order to find out the differences and the peculiarities of *Kyūmin myōyaku* when compared with the other two handbooks, I have made a list of the injuries and sicknesses that appear in them.[35] *Kyūmin myōyaku* discusses accidents and injuries such as intoxication and poisoning by different foods, bites by various animals but also problems concerning the digestive tract and difficulties in child-birth. Like *Fukyū ruihō* it covers all sorts of skin diseases, a topic that is missing from *Kōkei saikyūhō*. The table also reveals that the content of *Kyūmin myōyaku* is less systematically structured compared to the other two manuals, and therefore more confusing. The last sixteen entries in *Kyūmin myōyaku* are more general practical information and contain advice such as dietary recommendations for prolonging one's life, foods that should not be eaten together, tips when setting off on a journey and the problems of newborns.

The most striking difference from *Kōkei saikyūhō* are the references in *Kyūmin myōyaku* to moral behaviour and regimen. The entry 'How to have a healthy and long life' (113), for example, discusses the proper conduct of lifestyle in connection with a long and healthy life. Hōan advises the reader to avoid greediness when consuming food, as follows:

> One should learn from the beasts and birds: they eat when they are hungry, and cease eating when satiated. When desire develops, one indulges, and when one is stricken with desire, one suffers. Men become satiated by filling their belly when eating something tasty; however, even when they try to suppress this desire, when they see the seductive food, they just want to indulge. […][36]

Hōan continues to explain how this behaviour damages the organs, and how this subsequently leads to death. Moral behaviour in connection with food consumption is also the subject of the entry 'Food not to be eaten' (129). Therein, he warns that:

> One should be very mindful with regard to eating wrong foodstuffs. Lotus seeds and roots, for example, are very good for one's heart and soul, and also contain no poison. Very poisonous food, however, will take one's life. The cock and the dog are the man's messengers; the cock announces daybreak and nightfall, and the dog keeps guard over a master's house. Man moreover keeps them at home, empathising with them. Yet it is a crime to kill and eat them for the sake of tasting their flesh. Although the [act of] killing an animal is the same, it makes a difference if the animal was beneficial to man or did him harm. A person who likes evil food such as this will develop a severe illness as a result and die early; and even in his afterlife he will

[34] Nakamura, 17.
[35] See table V in the appendices.
[36] *Kyūmin myōyaku*, 56a-b.

> fall into the most painful of the eight hells (*abijigoku* 阿鼻地獄), and his descendants too will not be able to avoid this but will be punished.[37]

Hōan's ethical concerns are not restricted to lifestyle and the consumption of food, for his admonitions extend to ethical concerns regarding abortion, which is discussed in entry 128. Therein, he argues that:

> Abortion represents the most inhuman (*fujin* 不仁) action and must not be carried out by any physician. If one wishes to abort because there is no other choice, there are many methods and medicines to do so in the past and now. There are physician-like places in both China and Japan, where not much attention is paid, and which are beyond excuse. […] If one ingests something, it will always have an effect on stomach and spleen. These two organs pass it to the foetus inside the womb, which indeed is a human being. If a woman takes poisonous medicine that destroys the foetus, she will be poisoned as well. It is not possible that only the foetus gets harmed but not its mother. Moreover, it does not make any sense to take [ordinary] medicine. There is nothing that equals aborticides. It is better [to do it] from the fourth month onwards, because prior to that the womb is not yet fully developed and that would lead to the loss of large amounts of blood. Therefore, one should be very cautious. As for aborticides, items such as achyranthes root (*i no kozuchi* 牛膝), burdock (*gobō* 牛蒡) and Japanese radish are good, and it will be efficacious, if some musk is given beforehand. […] The woman must be in a depleted condition to be able to abort, which is only possible when the womb is restless. To apply these methods to a woman in a repleted condition is like giving honey to an obstipated person.[38] It is an extremely inhuman behaviour to abort a living child at the end of pregnancy in order to reduce the number of children.[39]

This entry disappears in the enlarged version of *Kyūmin myōyaku* of 1806, in which almost all the entries from the original version were adopted and about 120 extra diseases were added.[40] Later printed editions of *Kyūmin myōyaku* from the Meiji period onwards that were based on the edition of 1911 rely on the original version from 1693. Those, for example, are contained in the series *Nihon eisei bunko* 日本衛生文庫 or *Nihon kyōiku bunkō* 日本教育文庫; they include the entry 'Abortion' since it is contained in the original, but instead of the content the reader finds a comment saying that this paragraph is omitted.[41]

The omission of the paragraph on abortion reflects well the new political discourse that had already begun with Tsunayoshi's *Shōrui awaremi rei*, in which not only the hunting of wild animals, cruelty to dogs and horses and the abandonment of the sick, but also "child-killing" (*kogoroshi* 子ごろし) and "child-abandonment" (*kosute* 子捨て) became prohibited.

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[37] *Ibid*., 62b-63a.
[38] Sugar worsens the constipated condition.
[39] *Ibid*., 61a-62a.
[40] *Zōho kyūmin myōyakushū* 増補救民妙薬, digital version in: National Diet Library http://dl.ndl.go.jp/info:ndljp/pid/2536912 (accessed, November 6th, 2013).
[41] *Nihon eisei bunko* 5, 205; *Nihon kyōiku bunkō*, Eisei oyobi yūgihen, 95.

This marked the start on a new definition for women's reproductive function, which also finds expression in pregnancy handbooks.[42] Tsukamoto however warns against interpreting such laws in humanist terms, and argues that these policies were intimately connected with political authority adopting the mantle of *jinsei*.[43]

There is no entry dealing with abortion nor are there any other such admonitions in *Kōkei saikyūhō* or *Fūkyū ruihō*. The only hint in *Kōkei saikyūhō,* which might be interpreted as an appeal to one's responsibility for saving life, is given in the entry "Becoming unconscious during intercourse" (*kōsetsu konbei* 交接昏迷). It describes how to save the male partner, advising the woman to keep holding her partner firmly in her arms regardless of their position when he collapses, and constantly to force her breath into his mouth until he regains consciousness. If she becomes terrified and releases her body in reaction, all that remains would be for him to die. This would apply particularly to a disease that involves incessant emissions during sexual intercourse. Should this happen, Motonori advises not to move or remove the penis from the vagina but – while performing mouth-to-mouth respiration – to continuously press a certain acupuncture point near the root of the penis. After emission has stopped, she or a young girl should continue with mouth-to-mouth respiration. In the mean time, a decoction should be made and infused.[44]

It is not very convincing to explain the success of *Kyūmin myōyaku* with reference to its moral features and the question arises whether its popularity lies elsewhere. Is its success therefore rather due to its 'extraordinary medicines' (*myōyaku*), as the title of the manual suggests? In order to find answers to this question the substances on which these 'extraordinary medicines' are based will be more closely examined by taking as an example the entry "Rat/Mouse bites" (*nezumikui* 鼠咬):

[42] Burns 2002, 191-3.
[43] Tsukamoto, (*Shōrui o meguru seiji*, Heibonsha 1983), 278-9, in Burns 2002, 192.
[44] *Kōkei saikyūhō* I, 21a-b.

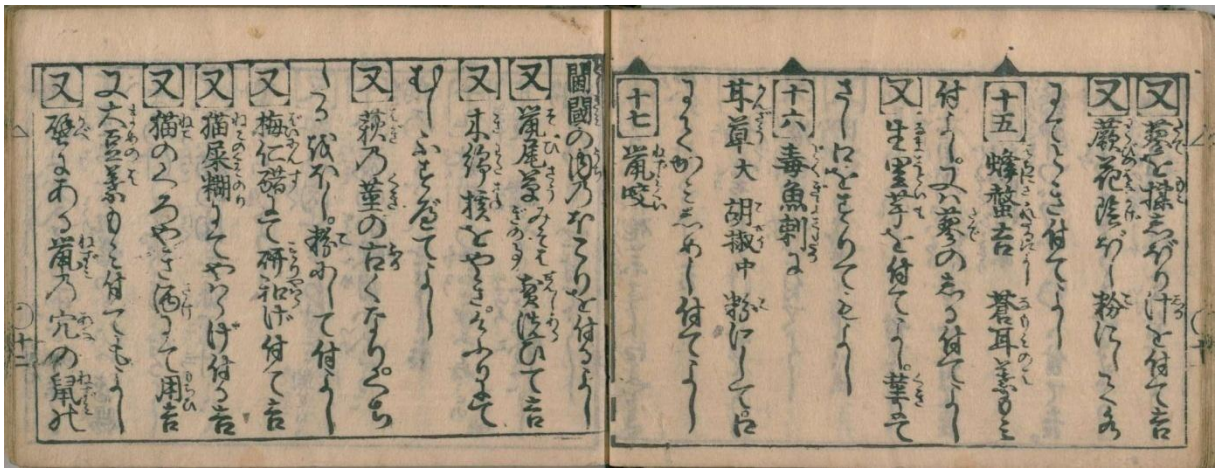

Fig.15. *Kyūmin myōyaku* 11b-12a

Rat/Mouse bites:

(1) It is good to apply the dirt which is in door sills.

(2) It is also beneficial to boil loosestrife (*misohagi*) and wash the wound with it.

(3) Or roast cotton seeds, and use the smoke to fumigate [the wound].

(4) It is also good to dry the old and rotten stems of the Japanese bush clover (*hagi*), turn them into powder and apply them.

(5) Or to grind the kernel of a Japanese plum in vinegar: let it macerate and then apply it.

(6) It is also beneficial to smooth the excrement of a cat in starch and then to apply it.

(7) It is also good to use a charred cat[45] in alcohol or apply the kneaded leaves of a soya bean plant.

(8) Or to examine closely the mouse-hole in the wall or the spot where the mouse usually goes in and out, take the soil from there, dissolve it in vinegar or in chickweed juice, and apply it.

(9) Or to cook the meat of a black cat in *miso* soup and use it.

(10) It is also efficacious to apply a grated crucian carp; the raw meat would be good.[46]

All in all, Hōan suggests about ten different methods of treating rat/mouse bites, of which Nakamura claims half to be of magical origin (1, 2, 6, 7, 8, 9). In his view, recipes (6), (7) and (9) are obviously directly linked to the image of a cat catching a mouse by being endowed with the power of the cat, which is able to control the poison of the mouse. Additionally, those methods were selected that were directly and positively associated with a mouse, as recipes (1) and (8) reveal, in which the dust of the doorsill (1) or the soil near the hole are used (8). In these remedies, 'elements' of the mouse were positively used by not receiving the mouse's poison as poison but by transforming it into helpful characteristics.[47] It would go beyond the scope of this chapter to investigate the effectiveness of these recipes, but, as Wu remarks in her study on the medical legitimacy and efficacy of popular medical texts from the

[45] It is the *Ben cao* containing recipes in which charred animals and plants (*kuroyaki* 黒焼) were widely used as medicine that set the foundations of what became a popular business from the end of the eighteenth century onwards; Yoshioka, 142-3.
[46] *Kyūmin myōyaku*, 12a.
[47] Nakamura, 18.

Bamboo Grove Monastery (*zhu lin si* 竹林寺), judgements about efficacy are culturally dependent and must be understood as part of a broader system of beliefs. She further found that the remedies in these texts consisted of therapies, many of which were similar to those found in learned texts, a conclusion that can be made for this text as well, which we will see below.[48]

Fukyū ruihō contains just two remedies against mouse bites, which are both extracts from the Chinese manual *Simple Methods for Emergencies* (*Jiu ji yi fang*).[49] The reader is recommended to use pulverised musk dissolved in saliva, or to apply the ash of burned cat hair.[50] More space is given to advice on how to get rid of mice, which also derives from the above-mentioned Chinese manual. Besides one more or less practical suggestion to catch a male mouse and cut off its penis, the other three are more likely of symbolic character. It is, for example, recommended to block the mouse hole on certain days of the month, or to hang up a cloth bag in the south-east corner of the house, filled with a charred mouse and cat head.[51]

In *Kōkei saikyūhō* the entry on mouse bites is much more elaborate. Motonori first advises people to put saltpetre[52] on the wound and then to ignite it, for the simple reason that the poison would be dispersed by the explosion. Thereafter, musk was to be put on the sore. In the meantime, a tea consisting of white azalea or loosestrifes should be made and drunk in large quantities. If there is no saltpetre available, one should squeeze out the blood or put the wound into hot water, or put the squeezed leaves of morning glory on the bitten spot. The tea was to be drunk in any case. Other options for a paste are the soot at the bottom of a pot together with birdlime and ash of paulownia wood, of which geta were usually made, into starch; or pulverised oyster shells, lime, and cork tree bark (*ōbaku*) in chickweed (*hakobe*) juice.[53] All recommended plants are explained in detail and generally illustrated, with only musk, optional oyster shells and cork tree bark available in a pharmacy. The presentation of a comparable wide range of remedies follows a detailed explanation of possible complications

[48] Wu, 64.
[49] See chapter one.
[50] *Fukyū ruihō* 5-2, 21a-b.
[51] *Ibid*.
[52] Saltpeter is known under the names *enshō* (焔硝), *shōseki* (硝石 or 消石), *bōshō* (芒消), and *kashō* (火硝). It here refers to potassium nitrate, and occurs as a mineral niter, which is naturally produced in caves but also in dry regions on the surface of the earth. It can also be produced by bacteria in excrements. In Tokugawa Japan, the domain Kaga produced it by using the excrements of silkworms together with various weeds. Nitrum, as it is pharmaceutically called, has the property to dissolve tumours among other medical effects, but is also categorised as toxic in *kanpō* medicine; Suzuki H., 199.
[53] *Kōkei saikyūhō* II, 85a-86a.

after the bite, which is already described and analysed in a previous chapter in connection with intoxication.

All in all, *Kyūmin myōyaku* and *Kōkei saikyūhō* share three ingredients, namely loosestrife, chickweed and starch, but *Kyūmin myōyaku* and *Fukyū ruihō* share only one, which can be subsumed under 'any substance of a cat'. If we finally compare the recipes in *Fukyū ruihō* and *Kōkei saikyūhō*, they have in common only the application of musk.

Table 6.2.: Substances in common

Ingredient	***Kyūmin myōyaku***	***Fukyū ruihō***	***Kōkei saikyūhō***
Loosestrifes	x		x
Chickweed	x		x
Starch	x		x
Parts of a cat	x	x	
Musk		x	x

The table suggests that *Kōkei saikyūhō* and *Kyūmin myōyaku* have more in common than *Kyūmin myōyaku* and *Fukyū ruihō* in terms of treatment methods, but it would be unreasonable to conclude from a single example that there exists a close affinity between *Kōkei saikyūhō* and *Kyūmin myōyaku* in terms of remedies. This affinity could also be rooted in the efficacy of the medicines used, and since Motonori mentioned in his introduction that he also used approved methods for treatment from popular sources, it is also likely that he could have used *Kyūmin myōyaku* as a source. Indeed, the medicines that are mentioned in the entry "b*ee stings*" (*hachi ni sasaretaru ni* 蜂に螫たるに), which are xanthium, knotweed and taro, are the same plants that are also recommended by Motonori. Yet it is striking that Motonori refrains from recommending recipes that contain any part of a cat or ingredients that are associated with a cat because of its symbolic character. In fact, we do not find any recipe in the whole book in which treatment occurs on symbolic level, except for the ritual that is described in chapter four, and even therewith *materia medica* is used in form of fumigation.[54] We therefore can conclude that in terms of treatment methods Motonori exclusively relies on *materia medica* and manual therapy, and the example of mouse bite shows that his approach in this book is evidently defined by scientific methods.

Nakamura further wonders if these, what he calls extremely doubtful, methods were indeed applied by mentioning Kyokutei Bakin's 曲亭馬琴 (1767-1848) diary from 1829, in

[54] About treatment forms using fumigation or inhalation, see Dieter Martinetz, Karlheinz Lohs, and Jörg Janzen, *Weihrauch und Myrrhe. Kulturgeschichte und wirtschaftliche Bedeutung; Botanik, Chemie, Medizin*, (Stuttgart: Wissenschaftliche Verlagsgesellschaft, 1989); Christian Rätsch, *Räucherstoffe. Der Atem des Drachen. 72 Pflanzenportraits. Ethnobotanik, Rituale und praktische Anwendungen*, (Aarau: AT Verlag, 2006).

which Bakin recorded the different treatments he underwent after he was severely bitten by a mouse.[55]

> Diary Bunsei 12 (1829), third month:
>
> - fifteenth day[56]: […] Tonight, an old mouse made its way in from between three tatami borders, and when Sōhaku chased it, it went into the study. I helped him and while I chased it, it jumped and bit me in the little finger of my left hand. Although I did not intend to let it go, I shook it off my hand, and I bled profusely. As treatment, I took some medicine that destroys the poison. The mouse was beaten to death and then thrown away. As the main remedy, I put [a paste made of some ground] stone of a pickled plum (*umeboshi*) in vinegar on the wound, and covered it with cat hair. At night, I suffered quite some pain. […] In the afternoon, Seiemon[57] came and left a big package of "Marvellously reacting pills" (*kiōgan* 奇応丸) that O'Michi[58] packaged. […]
>
> - sixteenth day: […] Before breakfast: O'Hyaku passed by the house in Iida-chō, and the servant Gensuke told her about "Marvellous medicine against dog poison" (*kendoku myōyaku* 犬毒妙薬), a recipe that is transmitted from the old-established Yoshikawa Genzui family, and which is sold at Sankurō's and Miyako's.[59] The medicine is said to be efficacious against mouse poison too, and I want to buy it.
>
> Before the fourth double-hour[60]: O'Hyaku bought the medicine and brought it along. Shortly after I had taken it, from the second half of the fourth double hour onwards[61], my whole body was bending and severely cramped, and I couldn't shake or move it at all. Around the second half of the ninth double hour[62] I could urinate and relax my body a little, and from the eighth double hour[63], most parts of my body were relaxed. I ate, and although I was completely recovered in the evening, I found it hard to go out for a walk tonight, so I went to bed. This is an extremely powerful medicine, which uses the drug rhubarb root (*daiō* 大黄) in addition to the poison-destroying agents. The wound is almost gone, and it is no longer swollen. It was a mistake to use the whole package. One should use half of it, if the poison of the dog or rat is not as virulent. Infants, the aged and people with depletion symptoms should be even more careful when using it. […]
>
> Seventeenth day: […] Seiemon came in the afternoon saying that Kyūgo (Hisago) sent loosestrife as medicine against rat poison to boil it, and to bath [the finger] in the hot broth. […]. I instantly let the

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[55] Nakamura, 19.
[56] Date corresponds to April, 18th 1829; Yuasa 4, 365.
[57] Bakin's son-in-law, he lives in the house in Iida-chō. See http://www.ne.jp/asahi/kato/yoshio/bakin/bunsei12.html (accessed November 12th 2013).
[58] The wife of his son Sōhaku and daughter of a doctor; see *ibid.*
[59] It is not clear if 'Miyako' 京 refers to a shop or to Kyōto or to Edo in general.
[60] At that time, the day was subdivided into two sets of six (double) hours that varied in length according to the seasons. The day started with the ninth hour at midnight and the following hours were counted backwards until the fourth hour is reached which started at that time of the year (solar period "Clear and Bright" 清明) at 9.25 a.m. according to the conversion tables provided by Hashimoto 1966, 133.
[61] This second half of the fourth started at 10.35 a.m., *ibid*.
[62] After the fourth (double) hour the count starts again with the ninth hour, which is at noon this time; thus, the beginning of the second half of that ninth hour corresponds to modern 12.54 p.m., *ibid*.
[63] The modern equivalent for the start of the eighth double hour is 2.03 p.m., *ibid*.

> loosestrife boil, but after I just soaked the finger into the broth –maybe because water entered the wound – the condition of the wound worsened, and I deeply regret having done it.[64]

This description of how Bakin treated himself gives Nakamura enough reason to conclude that these treatment forms, which contained the application of cat hair and also loosestrife, were still applied in everyday life even a century after the publication of *Kyōmin myōyaku*.[65] Also Williams stresses that the majority of ordinary Japanese were drawn to 'magical' or 'superstitious' medicine, which was an attractive source of income for Buddhist temples.[66] Yet more striking than the treatment with loosestrife - which also turned out to be not very successful - is the usage of proprietary medicines. *Kiōgan*, for example, was a widely-known remedy, which was sold in many places. It was usually used for food poisoning, diarrhoea due to heat stroke (*kakuran*) and pain in the abdomen and, depending on the maker and seller, its ingredients slightly differed.[67] The passage further reveals the habit of people in early modern Japan of taking one or two medicines even simultaneously. The careless intake of medical substances became a common practice from the eighteenth century onwards, which for instance manifested itself in the consumption of 'trendy medicines' (*hayarimono*).[68] This tendency can also be perceived in *Kōkei saikyūhō*, in which Motonori devotes a whole section to intoxication by medicine.[69] The passage of Bakin's diary also reveals the way how he obtained relevant information for a successful treatment; in this case, he obviously relied on oral transmission of knowledge and did not consult any encyclopaedias or medical primers. This may have had various causes, of which one could lie in the degree in which written texts were available and disseminated at that time, a point that is all the more crucial for manuals such as *Kōkei saikyūhō*, which rely on the widespread distribution if they intend to perform public welfare.

2.2 Ways of dissemination: the role of lending libraries

The establishment and expansion of institutions and publication of texts was only one strand in sharing and disseminating medical information. At the same time, another equally important development that was crucial for the expansion of knowledge took place: the establishment and expansion of lending libraries. The first indications of booksellers lending books are found in poetry of the Genroku period (1688-1704).[70] According to one source, a

[64] *Bakin nikki* 2, 54-56.
[65] Nakamura, 19.
[66] Williams, 86.
[67] Yoshioka 1989, appendix, 15.
[68] Kabayama, 452.
[69] See chapter two and *Kōkei saikyūhō* II, 39a.
[70] Nagatomo, 137; May, 54.

lending library was already active in the countryside around the year 1729, and Japanese scholars estimate that they reached the whole country from the Hōreki period (1751-64) onwards.[71] The range of books was not limited to literary entertainment in its simplest form but also contained historical works, non-fiction and books for general education.[72] Their impact on the dissemination and acquisition of knowledge should not be underestimated, and May concludes that lending libraries were essentially precursors to literary education in the provinces and in the countryside of early modern Japan.[73] They were not only an important source of information in the countryside, for their numbers were astonishing even in big cities such as Edo. A source dated from 1808 says that for Edo about 656 lending libraries existed and for Osaka about 300 in the first two decades of the nineteenth century.[74] Thus, their part in disseminating medical should not be underestimated.

By using various contemporary sources such as diaries and letters Hamada demonstrates that for a special genre of popular literature (*yomihon* 読本) the number of prints of an edition rarely exceeded one thousand, and in the instance of the most popular work of Bakin, the "Story of eight dog samurai and a princess of Satomi family in the Nansō region" (Nansō Satomi hakkenden 南総里見八犬伝, 1814-42) the number of prints is estimated to be between 700 and 750 copies.[75] Hamada therefore shows that it was not the printing run of an edition that marked the high popularity of a work, it was actually the lending libraries which were the crucial factor for the dissemination and therefore popularisation of a text, a fact that May also stresses.[76] However, the question arises of whether this also applies for the genre of functional literature, to which *Kōkei saikyūhō* can be assigned. We know that it was listed in the directory of Nagoya's lending library, and Motonori's advice in the introduction to study it thoroughly and memorise it, bear the chance of a wide dissemination. Taking the distribution figures of *Katemono* that also belongs to functional literature as reference material, the printing activities in the Yonezawa domain, where more than 1 500 copies were distributed for ensuring the health of its people, are even more striking.

Judging from the many reprints, Japanese scholars have concluded that *Kyūmin myōyaku* was in high demand in early modern society, and it is evident that neither

[71] Hamada, 44; May, *loc. cit*.
[72] May, *loc. cit*.
[73] *Ibid*., 61.
[74] *Ibid*., 54.
[75] Hamada, 25; in May, 55.
[76] *Ibid*.

Yoshimune's *Fukyū ruihō* nor Motonori's *Kōkei saikyūhō* reached this level of popularity.[77] As for *Fukyū ruihō*, we know that there is an official notice (*ofure*) from the year 1730 relating to its selling. It says that a book of twelve volumes named *Fukyū ruihō*, which provides detailed information on medicines in the case of illness, is approved by the Bakufu and has been ordered to be printed. The book wholesalers and retail sellers should all sell it at the same price, that is, only for nine *momme*, and eight *bu* for a set.[78] According to May, we can estimate the lending price for a text as a sixth of the regular price, which even then makes it relatively expensive compared, for example, to the four volumes comprising "Zhuang Zi for the countryside" (*Inaka sōji* 田舎荘子, 1727) from the same period that was regularly sold for three *momme* and six *bu*, and lent for the price of six *bu*.[79] In contrast to this, the announcement of the free distribution of *Kōkei saikyūhō* appears somewhat revolutionary. If and how this was done in detail, however, is not mentioned.

All we know from the surviving complete and incomplete copies of *Kōkei saikyūhō* is that all date from the year 1791, and we therefore can assume that it is most likely that the manual was not reprinted in later years. *Kokusho sōmokuroku* lists thirty surviving printed copies and one handwritten copy, and the database of the Union Catalogue of Japanese Books, which contains most parts of the *Kokusho sōmokuroku*, shows thirty-seven entries for complete or incomplete surviving copies, of which three are handwritten.[80] Some of the printed copies have a colophon at the end with the names of the Edo publishers Suwaraya Ihachi 須原屋伊八, Suwaraya Zensaburō 須原屋善三郎, Suwaraya Mohee 須原屋茂兵衛 and Suwaraya Kasuke 須原屋嘉助. It is possible that extracts from or copies of *Kōkei saikyūhō* were distributed via household encyclopaedias or by means of a lending library in one way or another. Yet it is not easy to assess how far-reaching its impact was. According to Sōda, extracts from it found their way into later popular handbooks for medical use such as "Emergency Methods for the Use at Home*"* (*Kyōri kyūkyūhō* 郷里急救法, 1801), and thus reached a broad audience in that way.[81]

[77] Yoshioka 1994, 33-4; Tsukamoto 1991, 216.
[78] Fukui 1983, 200.
[79] May, 55.
[80] *Kokusho sōmokuroku* 3, 216/4, http://base1.nijl.ac.jp/infolib/meta_pub/KTGSearch.cgi (accessed September, 10th 2013).
[81] Yoshioka 1994, 36; *Kokusho sōmokuroku* lists editions of it in at least twenty-eight institutions: *Kokusho sōmokuroku* 3, 216/4; and for *Fukyū ruihō*, there are editions in at least twenty-five different libraries: *ibid.* 7, 29/3.

Conclusion

As this chapter has shown, the acquisition of medical knowledge was not restricted to centres such as Edo or Osaka; the domains were also active in providing their people with medical information, be it by the establishment of schools or the publication of texts. Although the role of encyclopaedias as additional providers of information and lending libraries as a medium of dissemination may require further in-depth analysis, it is clear that they played an important part in the dissemination of medical knowledge. Furthermore, the example of *Kyūmin myōyaku* reveals that the concept of *jinsei* was not confined to the activities of the Bakufu but was also practised in the domains depending on the mindset of the daimyō.

We can summarise that the common feature of the three manuals is the intention to provide a guide for self-help that is easy to understand, with remedies easy to make and ingredients that were easy to obtain for people with no access to medical care. However, the methods by which the authors sought to achieve their goals differed in several ways. *Kyūmin myōyaku* presents itself as the shortest and most abbreviated guide to general welfare. Although the list of its shortcomings is long - no explanation of symptoms, no illustrations of plants and animals with information on where to find them and how to prepare them, no information on dosage - it turned out to be the most successful of these books in terms of the number of its reprints and evaluation in scholarship. From a practical point of view, *Fukyū ruihō* is the most bulky of these manuals. Consisting of seven volumes, its style and contents more closely resemble *Kyūmin myōyaku* than *Kōkei saikyūhō* does. Although the latter is the most informative and precise of the manuals regarding the description of diseases and instructions on preparation methods, and therefore goes far beyond the scope of a mere emergency handbook, it obviously did not enjoy the same measure of success and popularity as *Kyūmin myōyaku* did. It might be the combination of all these factors - its mixture of 'magical' treatments with more or less efficacious remedies from medical classics interspersed with moral statements, and the practical aspect of being a small and handy booklet that could be easily carried - that led to *Kyūmin myōyaku*'s popularity.

However, there are some features that set *Kōkei saiyūhō* apart from both *Fukyū ruihō* and *Kyūmin myōyaku*. Unlike the other two books which exclusively address the common people, Motonori attempted to compile a manual that would serve all members of society: daimyō, merchants, farmers, and their wives and children are all addressed. The significance of this difference becomes clear when we look more closely at the table of contents of *Kōkei saiyūhō*, which reveals the diversity of situations in which medical emergencies occur. These circumstances provide us with clues to the different activities in which people were involved.

The manual lists accidents in which the eye balls protrude due to a person having carried too heavy loads and describes measures to take following the loss of testicles after a horse bite in the scrotum. It also explains what to do with the belly cut open or a cut open throat, and addresses issues such as starvation, the overconsumption of seaweed, and poisoning due to the consumption of nuts and berries. On the other hand, it also contains references that deal with overindulgence, such as intoxication by alcohol and the excessive consumption of dried rice or rice cakes.[82]

Another feature that distinguishes *Kōkei saikyūhō* from the two other manuals is its scientific approach to the choice of recipes. Although Motonori uses ingredients that take some getting used to for readers today, such as excremental medicines, he refrains from choosing healing methods which involve recipes that rely on the symbolic character of the ingredients. On the contrary, he stresses that he only uses recipes that have been repeatedly tried and tested. This raises the basic question as to whether the instructions in the other two manuals are detailed enough to ensure the safe handling and correct intake of the recommended medicines. As we have seen in Chapter Two, this appears not to be the case in the example of Acute Jaundice, in which the authors of *Fukyū ruihō* for some reason fail to indicate the quantity to be taken of a highly poisonous plant. *Kōkei saikyūhō*, on the other hand, provides not only detailed explanations about the quantities needed and the correct preparation method of the medicines used in each recipe, but also describes the diseases and their symptoms in a scientific but easy-to-understand way that enables the reader to follow each step of the treatment. These characteristics turn it to a home-doctor manual that stands up to comparison with those of the present day.

[82] See table I in the appendices.

Conclusion

This thesis has focused on *Kōkei saikyūhō* in order to consider it as a publication inspired by the notion of benevolent governance, to investigate the nature of the health-care information it provided, and to consider how it differed from other official manuals compiled with the same intentions. Could the text-initiatives as initiated by the Bakufu be seen as an alternative approach to public health care which differs from the welfare endeavours of eighteenth- and nineteenth-century Europe? There, the notion of public health care was closely linked to the establishment of hospitals and the progress of medical science and technology, a development that was supported by the Enlightenment movement as driving force for the reformation of society.

When considering the general framework in which the history of public health has been investigated in modern scholarship, we can observe both in Western studies on the history of public health care in Europe and in the research of Japanese scholars on the Japanese pre-modern health care system a strong tendency to apply the scientific methods of the natural sciences as a criterion for the evaluation of the historical effectiveness of public welfare; and indeed one of the achievements was, among other things, the higher life expectancy realised by scientific progress in medicine.[1] In Western scholarship, however, we also can perceive critical responses to this tendency. McKeown, for example, has criticised this approach by accepting that medicine relieved suffering but accrediting lengthened life expectancy to heightened immunity resulting from improved diet, and he has attributed the reduction of mortality largely to improved status and standards of living.[2]

On the other hand, Japanese scholars, such as Sakai and Ikegami, take the establishment of hospitals as a criterion for measuring the achievements of state medicine, and have therefore concluded that Japan lacks any tradition of public or religious organizations that provided social welfare. Both authors state that there is historical evidence which shows that institutions existed to provide care for the poor and ill, but that these institutions did not last long. They argue that the government did not take on the responsibility of providing social welfare, which had the effect that all responsibility for

[1] For a summary of the Western research on the history of public health care, see D. Porter, 2. For her, the representative of this approach is George Rosen, a historian of public health in Europe, but Rosenberg re-evaluates Rosen's approach by pointing out that Rosen's approach was often misunderstood, and that for him the history of medicine was always a social history in which medicine is determined by the realities of class interest, social prejudice, and economic constraint; Rosenberg, 2.

[2] Porter 1994, 2-3; see also McKeown, 7.

nursing care lay with the extended family.[3] Similarly, Fukuda has argued that before the Meiji period (1868-1912) thinking about health in Japan was dominated by concern for individual well-being, but the concept and understanding of a need for social assistance in the case of sickness or other kinds of misfortune was not highly developed in early modern Japan. For him, health only became a matter of national concern likely to lead to various health measures in the nineteenth century when vaccination and environmental improvements following cholera and typhoid epidemics were introduced.[4]

However, if we refrain from setting scientific development in medicine shaped by Western Enlightenment thought as the standard for defining the progress of public health, we find a diversity of other government measures for providing social welfare. Early examples of these activities are the government projects in the Song dynasty, in which, among other things, the publication of medical books was intensified.[5] As Chapter Two has revealed, we find similar endeavours in Korea in the fifteenth and sixteenth centuries health care projects were undertaken aiming at the welfare of the populace resulting in the publication of medical books. This has shown that Japan was relatively late in promoting social welfare by means of the same method of distributing medical manuals, and, like the Song government, by establishing schools.

We can find the wellsprings of the concept of public welfare in East Asia in the writings of Confucius, when he reflected on 'benevolence', and applied by Mencius, when he discussed the essentials of 'benevolent government'. Yet their vision of governance stands in contrast to the Western motivation of public welfare in which healthy people were desired for the purposes of the state. Confucius' and Mencius' ideological concepts of benevolent governance are based upon virtue and operate for the benefit of the people in the same way as parents affectionately care for their children. They emphasise that it is not a government's task to provide the state with strong and healthy subjects for its own purposes but that idealistically the state stands for its people, a vision that is also embodied in the writings of the daimyō Uesugi Harunori of the Yonezawa domain (Chapter One).

Since the majority of Japanese and Western studies on the history of public health rely heavily on the approach that is defined by the scientific development discourse on welfare, they have neglected to take in account the commercial and official editing and distribution of medical manuals, a trend that increasingly grew in importance in both the East and the West.

[3] Ikegami, 133; his arguments mostly rely on Sakai 1982, 147-51.
[4] Fukuda, 385-9.
[5] Other projects were the establishment of medical schools established and the enforcement of the examination system; Goldschmidt, 21-2.

Yet there is one major difference in the nature of Western medical guide books and Japanese and Chinese popular medical publications. We can say for certain that the Western manuals mentioned in this study were all privately or commercially sponsored and their authors all pronounced a moral message in the spirit of eighteenth-century Enlightenment philosophy and were charactertised by their belief in the progress of knowledge via scientific methods and in the betterment of mankind. It became also apparent that these Western physicians engaged in publishing these books had a divided attitude towards their own enterprises. On one hand, they wanted to protect people from quack doctors and therefore eagerly advocated these self-help books, but on the other hand they were convinced that people were not able to know their own best medical interests and therefore needed professional advice in the form of a physician. By contrast, Motonori never questioned the physician's authority; although he was quite aware that many quacks were around and that fake medicines circulated, he advised the reader to put the manual away and follow the instructions of a physician if the services of one could be had. That means that he saw the publication of the manual as a medical aid to fill the gap in health care for those people without any access to a doctor for whatever reason and not as a form of criticism directed at his fellow physicians.

It is not until the Tokugawa period that we find activities that resemble the text projects of the Song dynasty. The Japanese initiatives were, unlike their Chinese precursor, undertaken not only on the highest government level, represented by the Bakufu, but were also executed on a domain level, a feature that distinguishes the Japanese endeavours from their Chinese model. Yet unlike Tokugawa Japan, where medical primers were issued by physicians or persons holding physician-like status, in China after the Song dynasty many popular medical writings were published by amateurs.[6] It is also striking that the Japanese projects were strongly dependent upon the intellectual background of the person in charge. This explains why *Kōkei saikyūhō* has received less attention in Japanese scholarship than the two other manuals: *Kyūmin myōyaku* and *Fukyū ruihō* have apparently aroused greater interest because of the personalities of Tokugawa Mitsukuni and Yoshimune. Especially Yoshimune was skilful in creating an image as a benevolent ruler and in benefiting from political decisions made by his predecessors. Although many of his ideas for restoring the economy and society were not new - it was, for example, Arai Hakuseki 新井白石 (1657-1725) who advocated replacing foreign imports of *materia medica* with the domestic production of indigenous plants - he realised his ideas by gathering texts with botanical and

[6] Although there were also heard critical voices which declared medical amateurs using medical primers to be a threat because of their lack of proper training, the popularity of these manuals indicate a deep confidence in the amateur's ability to assess medical knowledge based on personal experience; Wu, 81.

zoological information and data on foreign flora and horticultural practices, and the eventual successful cultivation of ginseng.[7] Also the creation of the Dispensary that became a training ground for the physicians of the *Igakkan* in the course of the Tokugawa period was a result of his initiatives. Moreover, and unlike *Kyūmin myōyaku* and *Kōkei saikyūhō*, the publication of *Fukyū ruihō* was part of a whole set of projects to enhance public welfare. However, to what extent these projects actually contributed to the improvement of the living condition of the population still remains to be answered. According to Totman, Yoshimune's period of rule probably resulted in more hardship and unrest instead of securing the well-being of the populace as a whole.[8]

This stands in contrast to the health care activities of Tokugawa Ieharu and his advisor Tanuma Okitsugu. It is not an exaggeration to say that Tanuma's use of *jinsei*-vocabulary was virtually non-existent, but under his administration medicine and Western sciences flourished. Seen in that light, *Kōkei saikyūhō* is not so much a result of Tanuma's politics in terms of *jinsei* but rather an attempt to educate the people in things medical or an effort towards the standardisation of medical knowledge. Yet in the end *Kōkei saikyūhō* benefitted from the Confucian framework, which it owes Matsudaira Sadanobu, who took up the ideological language of his ancestor Yoshimune and used the potential of the *jinsei*-concept for his political purposes. We also have to keep in mind the fact that *Kōkei saikyūhō* benefitted enormously from previous research on *materia medica* in Japan and could draw on experiences gained from projects in the field of agriculture in which *Nogyō zensho* played a major role, and studies in horticulture and botany such as *Yamato honzō* in the field of *materia medica* or *Minkan bikōroku* regarding the prevention of famine. This shows that manuals written independently of the framework of *jinsei* were important prerequisites: without them the realisation of health care would have been impossible.

Although Watanabe and Tsukamoto came to different conclusions concerning the impact of the diverse *jinsei*-activities, they have one point in common. Both perceive a contradiction or tension between what Watanabe calls the 'established manner' of governing and Tsukamoto's 'indigenous' knowledge of the common people on one side, and the imported idea of *jinsei* and the foreign sources of medical knowledge on the other side. For Tsukamoto, the *jinsei*-endeavours suppressed and finally corroded 'indigenous' knowledge by imposing 'foreign' scholarly knowledge on their minds, and he therefore held these initiatives partly responsible for the disappearance of orally transmitted traditional wisdom.[9] According

[7] Kasaya 2001, 171-2. See also Kasaya 1994.
[8] Totman, 315.
[9] Tsukamoto 1991, 227.

to him, *Kōkei saikyūhō* holds a special position since it contains both scholarly medical knowledge and the traditional wisdom of the people gained from daily experience. His approach illustrates a mode of perception we can observe in Japanese scholarship in general but also in Japanese physicians of the nineteenth century: the tendency to promote effective vernacular medicine so as to contrast it with medical knowledge found in the Chinese classics on medicine.

However, there is one point Watanabe and Tsukamoto are less likely to have realised namely, that *jinsei*-activities in the medical context went hand in hand with the popularisation of knowledge. By sponsoring manuals for the general public the initiators indirectly promoted the popularisation of their contents, but within the process of popularisation we can distinguish different degrees of simplification. For Motonori, making medical knowledge accessible for the general reader does not mean abandoning the scientific framework of medicine but rather making medical knowledge understandable to the layman, and furthermore, educating them in things medical. This approach is fundamentally different to the two other manuals; they actively used the vernacular language of the common people in order to make the medical context understandable, but by this strategy they more likely contributed to an overall confusion of medical terms.

By contrasting 'imported' medical knowledge with native, or in the case of *jinsei*, thoughts and institutions from overseas with the 'established Japanese manner', Tsukamoto and Watanabe overlook the possibility that this traditional knowledge too might have originally derived from foreign sources. Even if we define native medicine as medicine that employs ingredients that are taken from the natural environment of that specific country, those medicines might have originated elsewhere. With the exchange of seedlings and plants the environment is prone to change, and plants that originally were not part of the indigenous vegetation become part of the native culture, as we have seen when we investigated the *materia medica* in Chapter Four. Vernacular medicine can also be seen as a kind of prototype, which underwent a process of 'professionalization' into standard medicine, as the example of moxibustion but also other types of treatment methods suggest (Chapter Five).

Porter has further assumed that popular medical writings were established in societies which provided health care and expertise among the elite but which were unwilling or unable to extend such facilities to the common people.[10] Does this also apply to Japan and medical manuals such as *Kōkei saikyūhō*? At first glance, this appears to be true for all three manuals, since all initiators emphasised the need to publish a manual that met the needs of the people.

[10] Porter 1992, 3.

However, as the analysis of diseases in Chapter Three revealed, the audience *Kōkei saikyūhō* addressed was not confined to the common people but included the whole of society. This is another point that sets it apart from the two other manuals, *Kyūmin myōyaku* and *Fukyū ruihō*, which both have a clear focus on the common people.

Another issue that came up in Chapter Six that deserves more attention but could not be pursued further is the connection between medicine and magic on one hand and the emphasis on the 'rational' character of medicine on the other hand. Taking Hashimoto's findings from the investigation of household encyclopaedias as a basis, we can observe a shift in the perception of medicine from magical treatment to evidence-based medicine. Similarly, scholars such as Sōda emphasise the strong trend of medicine in the course of the Tokugawa period toward rational or scientific methods under the notion of *Jitsugaku* to prove their efficacy (Chapter Three and Four). This approach addresses evidential scholarship and is related to the classical method of investigating things (ch. *ge wu* 格物) promulgated by Chinese literati, which became the methodology for medical learning from the Song dynasty onwards, and was later linked by the Jesuits to European higher learning, *scientia*.[11] We can also observe this scientific spirit in *Kōkei saikyūhō* in which – unlike *Kyūmin myōyaku* and *Fukyū ruihō* – no longer are 'magical' elements as part of the treatment present. Based on Hashimoto's findings and the analysis of the treatment methods and recipes in *Kōkei saikyūhō* we can conclude that this shift from magical treatment toward 'evidence-based' medicine occurred around the year 1800.

It is difficult to give a clear answer to the question posed in Chapter Six as to what extent *Kōkei saikyūhō* was disseminated and therefore to assess how successful this *jinsei*-endeavour actually was. As we have seen in the case of the lending libraries, it is not the number of reprints that makes a book widely read. The manual could have been borrowed from a lending library or a friend and copied or even memorised, as suggested by Motonori in the introduction. As Kornicki has pointed out for nineteenth-century Russia, where the widespread practice of reading aloud to illiterate peasants gave them access to the literary world, the oral transmission of medical texts likewise might have played a certain role in the dissemination of medical knowledge in pre-modern Japan.[12] Indeed, the oral transmission of medical information had been a familiar practice in the Qing dynasty, and this tradition of memorising medical texts in verse and rhyme mentioned by Leung (Chapter Five) is still

[11] Elman, 4.
[12] Kornicki 2001, 34.

practised in China. To what extent this also applies to Tokugawa Japan is difficult to assess at this stage, and calls for further research.

The final question we have to ask is whether these official medical texts as public health measures were a transitory phenomenon, which lost their functions after the establishment of a modern welfare state, or, in other words, whether these medical guidebooks have to be seen as a pre-modern phenomenon. As for official publications, we know that *Kōkei saikyūhō* was the last official text of general medical content and that the medical books thereafter that were published by the Bakufu were all specialised in one way or the other. Yet this does not imply that this genre of medical book came to an end. It is striking that after the publication of *Kōkei saikyūhō* a number of emergency manuals appeared, which include in the title the characters for "first-aid" (*kyūkyū* 救急) such as "Methods picked up for first-aid" (*Kyūkyū tekihō* 救急摘方, 1853) written by Hirano Genryō 平野元良 (1790-1867). This book focusing on emergency situations includes also illustrations of medical instruments and instructions on how to make bandages for the head, face, hands and so on, showing clear evidence of Western influence, a feature that is missing in *Kōkei saikyūhō*.[13]

I therefore come to the conclusion that due to its clear structure, rational and educational content that addresses the whole society, a 'modern' type of first-aid manual emerged with the publication of *Kōkei saikyūhō*. It marks the beginning of the genre of modern home-doctor manuals that reached a popularity peak in the middle of the twentieth century with the publication of "Recipes for the praxis of nursing at home" (*Katei ni okeru jissaiteki kango no hiketsu* 家庭に於ける実際的看護の秘訣). After its initial publication in 1925 it became the standard reference work for medical treatment at home, re-issued and enlarged in numerous editions reaching the 1617th edition in the year 2000 with more than ten million copies printed.[14] It was written by Tsukuda Takichi 筑田多吉 (1872-1958), a non-doctor serving as first lieutenant in the nursing and care sector of the Japanese navy.[15] Like the medical manuals of the Tokugawa period, it largely consists of explanations about effective formulas for preparation at home and the description of other treatment methods for the whole range of ailments that can affect the body. According to the author, it contains treatment methods he found effective through his thirty-five years experience in the care sector of the Japanese navy, where he also came into contact with many people from all over Japan who transmitted to him recipes they had found effective. Yet the book is also based on the medical knowledge he gained by consulting popular medical manuals of the Tokugawa

[13] See Fujikawa Bunko, ki 68.
[14] Yamazaki, 18.
[15] This included medical primary care in medical emergencies; *ibid*.

period.[16] An analysis of whether and to what extent the medical knowledge of *Kōkei saikyūhō* found a place in this book and therefore was still applied in post-war Japan has yet to be undertaken. This would give a final answer to the possibility that it had a far-reaching impact on health care, even to the point of helping to shape the medical landscape of Japan's present.

[16] Tsukuda, 7.

Appendices

Table I: Diseases and medicines in *Kōkei saikyūhō*

Entry	Sino-Japanese disease term	Pronunciation	Total number of recipes	Ingredients pharmacy	Ingredients household	Ingredients nature	Other types of treatment
Kinds of faint	**卒倒之類**	***sottō no rui***					
1. Wind stroke	中風	*chūfū*	22	9	14	4	11
2. Yang collapse	脱陽	*datsuyō*	14	7	5	-	5
3. Becoming unconscious during intercourse	交接昏迷	*kōsetsu konbei*	5	2	-	-	3
4. Heat stroke	中氣	*chūki*	6	3	4	-	3
5. Phlegm reversal	痰厥	*tanketsu*	8	7	5	-	1
6. Summer heat stroke	中暑	*chūsho*	10	-	5	4	1
7. Agony when descending a well	入井悶冒	*nyūsei monbō*	10	1	7	2	5
8. Food reversal	食厥	*shokuketsu*	8	3	6	-	2
9. Sudden death due to unexpected fear	驚怖卒死	*kyōfu sotsushi*	10	8	4	1	3
10. Sudden turmoil	霍亂	*kakuran*	47	13	24	5	6
11. Clouded spirit due to poison of a boil	疔毒昏憒	*chōdoku konkai*	16	5	8	9	3
12. Beriberi attacking the heart	脚気衝心	*kakke sōjin*	10	6	5	8	1
13. Faint due to accumulating *qi*	積氣暈倒	*shakki untō*	15	12	6	4	1
14. Epilepsy	癲癇	*tenkan*	8	5	3	1	3
15. Blood reversal	血厥	*kekketsu*	6	5	2	1	2
16. Heart attack	波也宇知加太	*hayauchikata*	6	-	2	2	2
17. Dizziness caused by puncturing	鍼暈	*shin'un*	3	-	1	-	2
18. Fainting when taking a bath	入浴暈倒	*nyūyoku untō*	3	-	3	-	1
19. Seasickness	醉舩	*suisen*	9	4	5	1	-
Other signs of sudden violence	**卒暴諸證**	**sotsubō shoshō**					
20. Spitting blood	吐血[1]	*toketsu*	50	34	26	25	-
21. Nosebleed	衄血[2]	*jikuketsu*	25	4	7	11	3

[1] Further division into seven causes of blood vomiting; these are: "spitting blood due to blood stasis" (*tooketsu* 吐瘀血), "spitting blood due to deficiency" (*kyoson toketsu* 虚損吐血), "spitting blood due to deficiency accompanied by heat" (*kyonetsu toketsu* 虚熱吐血), "spitting blood due to excessive heat" (*jitsunetsu toketsu* 実熱吐血), "spitting blood as a result of great anger" (*taido toketsu* 大怒吐血), "blood spitting due to damage by alcohol" (*shōshu toketsu* 傷酒吐血), "blood spitting as a result of heatstroke" (*chūsho toketsu* 中暑吐血)

22. Bleeding of the gums and tongue	歯衄舌衄	*shijiku zetsujiku*	7	5	3	4	-
23. Blood in urine	小便血	*shōbenketsu*	8	4	3	4	-
24. Dizziness accompanied by all these forms of blood loss	諸失血眩暈	*shoshitsuketsu kenun*	9	6	4	3	2
25. Acute throat impediment	急喉痺	*kyūkōhi*	14	5	7	5	-
26. Choking over food	搶食風	*sōshokufū*	4	1	-	2	1
27. True headache	真頭痛	*shinzutsū*	2	1	-	-	1
28. Sudden pain in chest and abdomen[3]	心腹卒痛	shinfuku sotsutsū	31	21	10	6	2
29. Acute jaundice	急黄	*kyūō*	7	3	4	1	-
30. Sudden muteness	卒瘂	*sotsua*	4	4	3	-	-
31. Swelling and pain of a long grown uvula	懸壅垂長	*ken'yō suitō*	3	4	2	-	-
32. Sudden pain in tips of toes and fingers	指頭卒痛	*shitō sotsutsū*	6	1	4	3	-
33. Obscure toxic swelling	無名腫毒	*mumyō shudoku*	5	1?	3	3	-
34. Sudden deafness	卒聾	*sotsurō*	3	2	4	1	-
35. Sudden pain in the ear	耳中卒痛	*nichū sotsutsū*	5	3	3	-	-
36. Sudden swelling of the tongue	舌卒腫大	*shita sotsu ni shudai*	5	4	4	2	-
37. Acute urinary retention	小便急閉	*shōben kyūhei*	8	4	2	6	-
38. Dislocated lower jaw	脱頷	*datsugan*	2	1	1	-	1
39. Sudden clenched jaw	卒然牙関緊急	*sotsuzen gekan kinkyū*	1	-	1	-	-
40. Anal prolaps	脱肛不収	*dakkō fushū*	5	3	3	6	-
41. Discharge of roundworms	長蟲下出	*chōchū kashutsu*	1	-	2	-	-
Kinds of external injuries	**外傷の類**	***gaishō no rui***					
42. Incised wounds	金創[4]	*kinsō*	26	12	13	11	1
43. Cut off tongue	舌斷	*zetsudan*	2	1	3	1	-
44. Abrasions	擦壊	*satsukai*	3	1	2	2	-
45. Falls	顛撲[5]	*tenboku*	19	3	12	7	3
46. Eye injury	眼為物傷	*manako mono ni*	5	1	2	2	-

[2] Division into three causes: „nosebleeding after [intake of] alcohol" (*shugo jikuketsu* 酒後衄血), "nosebleed when taking a bath" (*nyūyoku jikuketsu* 入浴衄血), "nosebleed after fall from horse" (*uchimi rakuba nochi hanaji* 撲堕落馬後衄血).

[3] Division into seven causes: „pain due to worms" (*mushi no itami* 蟲痛), „pain due to cold" (*kantsū* 寒痛), "pain due to heat" (*netsutsū* 熱痛), "pain due to blood stasis" (*oketsutsū* 瘀血痛), "pain due to phlegm" (*tantsū* 痰痛), "pain due to food" (*shokutsū* 食痛), and "true breast pain" (*shinshintsū* 真心痛).

[4] It addresses issues like treatments to stanch blood or measures against oozing entrails from a belly cut open or a cut open throat, but also small cuts deriving from swords, axes, scissors, lances and arrows, or even bullets.

[5] It includes falls from height or horse, distortions and being crushed.

evoked by [an external] matter		*yaburaru*					
47. Protrusion of the eyes	眼睛突出	*gansei tosshutsu*	3	2	3	1	2
48. Burns by boiled water or fire	湯盪火焼	*tōtō kashū*	18	1	11	4	1
49. Frostbitten fingers or toes are to fall off	凍指欲堕	*tōshi ochinto hatsusu*	1	-	-	1	-
50. Bite injury by a human	人咬傷	*jinkōshō*	7	-	2	7	-
51. Bite wounds by diverse insects	諸蟲咬傷[6]	*shochū kōshō*	57	9	22	24	5
52. Bite wounds by various animals	諸獣嚙傷[7]	*shojū sakushō*	39	14	20	20	9
Unnatural manners of death	**横死の類**	***ōshi no rui***					
53. Death by smoke	煙薫死	*enkunshi*	6	-	2	1	1
54. Death from starvation	餓死	*gashi*	4	-	3	-	1
55. Death by hanging	縊死	*eishi*	5	1	1	-	3
56. Death by drowning	溺死	*dekishi*	9	2	7	-	6
57. Death from cold	凍死	*tōshi*	16	2	14	-	6
58. Death due to lightening strike	雷震死	*raishinshi*	4	2	1	1	3
Various matters penetrate into the nine orifices	**諸物入九竅**	**shobutsu kyūkyū ni iru**					
59. Penetration of various matters into the eyes	諸物入目	*shobutsu me ni iru*	12	-	7	1	12
60. Penetration of various matters into the ears[8]	諸物入耳	*shobutsu mimi ni iru*	18	-	14	4	18
61. Accidental swallowing of copper or iron[9]	誤呑銅鉄物	*ayamatte dōtetsubutsu wo nomu*	20	3	11	10	2
62. Blockage of the throat by various things[10]	諸物哽咽	*shobutsu nondo ni kōsu*	16	8	8	4	1
63. Suddenly occurring suffocation by food[11]	卒食噎)	*sotsu shokuitsu*	5	1	4	-	2
64. Penetration of a snake into the ear, mouth, nose, anus or vagina	蛇入人耳口鼻肛門并婦人陰門	*Kuchinawa hito no mimi kuchi hana kōmon ni iru*	6	2	5	2	5

[6] Bites by all kind of insects like centipedes, mole crickets, spiders, snakes, hairy caterpillars, earwigs, and mosquitos are listed in this section.
[7] It contains bite wounds by horse or cattle, domestic pig or wild boar, dogs or cats, rats, but also injuries caused by a bear or mad dog and encounters with a water sprite (*kappa* or *kawatarō*).
[8] Also includes the invasion of living objects like ants into the nostrils.
[9] Here are listed item made of metal like copper, iron or silver that are accidentally swallowed in form of coins, fishhooks, or needles but there are also mentioned splinter of glass or ceramics, and hair
[10] These things are fish bones that block the throat or cause pain in the stomach, small chicken bones, dried cuttlefish, splinter of wood or bamboo, and rice awns.
[11] Also added is the suffocation by a piece of rice cake.

65. Penetration of various objects into the flesh[12]	諸物肉入	*shobutsu niku ni iru*	24	5	9	11	22
Forms of intoxication	**食物中毒**	***shokubutsu chūdoku***					
66. Drug intoxication[13]	中諸薬毒	*moromoro yakudoku ni ataru*	40	11	17	9	2
67. Intoxication caused by crops and vegetables[14]	中諸穀菜毒	*moromoro kokusai doku ni ataru*	75	8	28	17	-
68. Alcohol intoxication[15]	中酒毒	*sake no doku ni ataru*	27	1	15	5	3
69. Intoxication caused by fish, mussels, poultry and beast[16]	中魚介禽獣肉毒	uo kai torike kedamono no doku ni ataru	70	14	25	21	-
Acute prepartal symptoms	**婦人産前急證**	***fujin sanzen kyūshō***					
70. Stirring fetus	胎動	*taidō*	11	3	7	2	-
71. Vaginal bleeding during pregnancy	胎漏	*tairō*	4	4	-	3	-
72. Eclampsia	子癇	*shikan*	8	3	3	3	2
73. Abdominal and lumbar pain in pregnancy	妊婦腹痛腰痛	*ninfu fukutsū yōtsū*	6	1	7	3	-
74. Whimpering child [in the womb]	子鳴	*shimei*	2	-	1	-	2
Acute signs of giving birth	**臨産急證**	***rinzan kyūshō***					
75. Difficult delivery[17]	難産	*nanzan*	25	13	10	5	10
Acute signs after delivery	**産後急証**	***sango kyūshō***					
76. Dizziness due to blood [disorders][18]	血暈	*ketsuun*	8	4	1	2	1
78. Uterine bleeding	崩漏	*bōrō*	14	4	7	4	2
Acute signs in infants	**小児急證**	***shōni kyūshō***					
79. Sudden	初生卒死	*shosei sotsushi*	1		1		

[12] This includes the handling of sewing or acupuncture needles that stuck in a part of the body and cannot be pulled out, bamboo, wood, seashell or glass splinters, and the spike of a ray.
[13] It lists the intoxication of aconite and its root, arsenic, opium, croton seeds, white lead powder, Japanese tiger beetles, bitter gourd, poison ivy (*tsutaurushi*), and melon pedicles.
[14] This section addresses twenty-seven different cases of intoxication starting with the poisoning after the consumption of barley in its different cooking variations, wheat and buckwheat poisoning; intoxication due to the excessive consumption of dried rice, rice cake or turnips; poisoning by tofu, tea, nicotine, bamboo sprouts, various sorts of potatoes, arrowhead, greens; intoxication by seasonings like pepper (*koshō*)or red pepper (*tōgarashi*), and the overconsumption of seaweed like kelp (*konbu*) and other types. It includes poisonings after the consumption of nuts, berries, different kind of melons, ginkgo-fruits, peaches as well as intoxication by various fungus species.
[15] Poisoning by different sorts of alcohol, including *chinta* which is the abbreviation of the Portuguese vinho tinto, red vine. It also comprises the intoxication by various sorts of oil and salt; in total, eight cases are listed.
[16] The treatment of the poisoning of many fish species and other seafood as well as different meats is listed here, but also measures against the accidental ingestion of insects, spiders, or frogs. It enlists about twenty-one cases in total.
[17] Also discusses delivery by which the intestines come out first, and difficulties in expulsing the afterbirth.
[18] These disorders are “faint due to blood desertion” (*ketsudatsu konun* 血脱昏暈) and “faint due to counterflow of blood” (*ketsugyaku konun* 血逆昏暈).

death of a newborn							
80. Pursed mouth	撮口	*satsukō*	8	2	4	3	1
81. Umbilical wind	臍風	*saifū*	4	2	2	1	1
82. Obstruction of excretion in newborn	初生便閉	*shosei benhei*	2		2	1	1
83. Erysipelas in newborn	初生丹毒	*shosei tandoku*	6		5	4	1
84. Clenched jaw in newborns	初生口不開	*shosei kōkin hirakazu*	2	3	1	1	
85. Fright wind [infantile convulsion] [19]	驚風	*kyōfū*	15	9	3	3	3
86. Acute gangrenous stomatitis[20]	走馬牙疳	*sōba gekan*	11	9	3	5	1

[19] It is differentiated between a chronic and acute condition, and the shaking of the body at the outbreak of smallpox showing similar signs.
[20] Literally: „galloping *gan* of the teeth and gums"; Wiseman, 236.

Table II: Diseases in *Fukyū ruihō*

DISEASE	**CHARACTER**	***SINO-JAPANESE READING***	**JAPANESE EQUIVALENT**	**EXPLANATION**	**ADDENDUM**
HEAD					
1. Headache	頭痛	*zutsū*			○
2. Dandruff	白屑	*hakusetsu*	*fuke*		
3. Favus	白禿	*tōtoku*	*shirakumo*		
4. Spot baldness	頭禿	*tōtoku*		○	
5. Eczema on the head	頭瘡	*zusō*		○	
6. Swollen head and face	頭面腫	*zumenshu*		○	
7. Hair[problems]	髪	*hatsu*	*kami no ke*		
8. Neck[problems]	頸頂	*keikō*		○	
FACE					
9. Swollen face	面腫	*menshu*		○	
10. Swollen jaw or cheek	顋頬腫	*shikyūshu*		○	
11. Pimples	粉刺	*funshi*	*nikibi*		
12. Eczema on the face	面瘡	*mensō*		○	
13. Freckles	雀斑	*shakuhan*	*sobakasu*		
14. Eyebrow[problem]	眉毛	*bimō*	*mayuke*		
15. Dislocated jaw	解頤	*kaii*		○	
EYES:					
16. All eye diseases are listed		*issai no ganbyō wo shirusu*			
MOUTH and TONGUE:					
17. Abscess on mouth or tongue	口舌瘡	*kōzetsusō*		○	
18. Festering mouth	口糜	*kōbi*		○	
19. Bad breath	口臭	*kōshū*		○	
20. Swollen tongue	舌腫	*zesshu*		○	
21. Damaged and swollen tongue	木舌	*mokuzetsu*		○	
22. Aphthongia	重舌	*jūzetsu*		○	
23. Contracted tongue	舌縮	*zesshuku*		○	
LIPS:					
24. Chapped lips	脣裂	*shinretsu*		○	
25. Sore lip	脣瘡	*shinsō*		○	
26. Bright lips	脣腫	*shinshu*		○	
27. Festering lips	緊脣	*kinshin*		○	
28. Angular cheilitis	口吻瘡	*kōfusō*		○	
TEETH:					
29. Toothache	牙歯痛	*geshitsū*		○	○
30. Toothache caused by heat	熱牙通	*netsugetsū*		○	
31. Loose teeth	歯動揺	*hadōyō*		○	
32. Diverse toothache	一切牙通	*saigetsū*		○	
33. Daily extending teeth	歯日長		*ha hibi ni nagashi*		
34. Teeth extraction method	取歯方		*ha wo toru hō*		
GUMS:					
35. Hurting gums	牙齦通	*gegintsū*		○	
36. Hurting and swelling gums	牙齦腫通	*gegin shutsū*		○	
37. Itching and hurting gums	牙齦痒通	*gegin yōtsū*		○	
38. Exposed tooth roots by receding gums	牙齦宣露	*gegin senro*		○	
39. Swelling and inflammation of the gums	牙齦腫爛	*gegin shoran*		○	
40. Gum bleeding	牙宣	*gensen*		○	
41. Bleeding due to rotting roots	走馬牙疳	*sōba gekan*		○	
THROAT:					
42. Sore and swollen throat	咽喉腫痛	*inkō shutsū*		○	
43. Swollen throat that causes pain by indigestion and respiration	喉痺	*kōhi*	*nodoge*		
44. Severe external and internal swelling of the throat	纏喉風	*tenkōfū*		○	
45. Restricted respiratory function caused by swollen flesh inside the throat	帝鍾喉風	*teishō kōfū*		○	
46. Blockage of the throat caused by sudden swelling	急喉痺	*kyūkōhi*		○	

47. Blockage of the throat caused by a boil	懸癰	*kenyō*		○	
48. Fish or chicken bones blocking the throat	骨硬	*kokkō*		○	○
49. Heartburn	醋心	*sakushin*		○	
50. [Diseases related to the] voice	声		*koe*	○	
EARS:					
51. Tinnitus	耳鳴	*nimei*	*miminari*		
52. Deafness	耳聾	*nirō*		○	
53. Earache	耳痛	*nitsū*		○	
54. Running ears	聹耳	*teini*	*mimidare*		
55. Swollen ears	耳腫	*nishu*		○	
56. Gathering of the ear	耳瘡	*nisō*		○	
57. Invasion of an insect into the ear	虫入耳		*mimi ni mushi iru*		○
58. Discharge of blood from the ear	耳出血		*mimi chi idasu*		
59. Discharge of fluid	耳出汁		*mimi shiru wo idasu*		
NOSE:					
60. Blocked nose	鼻塞	*bizoku*		○	
61. Running nose with clear or turbid secretion	鼻淵	*bien*		○	○
62. Blocked nose by proud flesh	鼻中瘜息	*bichū sokuniku*		○	
63. Brandy blossom	酒皶鼻	*shusabi*	*zakurobana*		
64. Gathering of the nose	鼻瘡	*bisō*		○	
CHEST:					
65. Chest pain	心胸痛	*shinkōtsū*		○	
66. Hot and painful sensation in the chest	熱心痛	*netsushinkō*		○	
67. Cold and painful sensation in the chest	冷心痛	*reishintsū*		○	
68. Acute chest pain	卒心痛	*sotsushintsū*		○	
69. Chest pain caused by worms	蟲心痛	*chūshintsū*		○	
70. Chest pain caused by phlegm	痰心痛	*tanshintsū*		○	
71. Unbearable constriction of the chest	胸痺	*kōhi*		○	
72. Various chest symptoms	心胸雑症	*shinkō zasshō*		○	
ABDOMEN:					
73. Abdominal pain	腹痛	*fukutsū*		○	
74. Abdominal swelling	腹脹	*fukuchō*		○	
75. Pain in the sides	脇痛)	*kōtsū*		○	
76. Underarm odor	腋臭	*ekishū*	*wakiga*		
LOWER BACK:					
77. Lower back pain	腰痛	*yōtsū*		○	
78. Pain in hip and thigh	腰腿痛	*yōsaitsū*		○	
79. Pain from hip downwards the foot	腰脚痛	*yōkyakutsū*		○	
80. Backache	腰脊痛	*yōsekitsū*		○	
81. Cold sensation in the lower back	腰冷	*yōrei*		○	
LIMBS:					
82. Pain in the arms or legs	手足痛	*shusokutsū*		○	
83. Beriberi	脚気	*kakke*			○
84. Cramp in the calf	轉筋	*tenkin*	*komuragaeri*		○
85. Aching knees resembling those of a crane	鶴膝風	*kakushitsufū*		○	
86. Weak legs	脚弱	*kyakushaku*			
87. Various symptoms of the limps	手足雑症	*shusoku zasshō*		○	
88. Skin	皮膚の部		*hifu no bu*		○
SCROTUM AND VULVA:					
89. Scrotum	陰嚢	*innō*			
90. Penis	陰莖	*inkyaku*			
91. Vulva	陰門	*inmon*			
ANUS (後陰):					
92. Anal [diseases]	肛門	*kōmon*			
93. Haemorrhoids and anal fistula	痔漏	*jirō*			
94. Anal prolapsed	脱肛	*dakō*			
Urination:					
95. Decreased urination	小便澁	*shōbenjō*		○	
96. No passing of urine	小便不通	*shōben futsū*		○	
Gonorhoea:					

97. Painful and decreased excretion of red urine and accompanied by hot sensation	熱淋	*netsurin*		○	
98. Painful excretion of not reddish urine accompanied by a cold sensation	冷淋	*reirin*		○	
99. Bloody and painful urination	血淋	*ketsurin*		○	
100. Ointment-like painful urination	膏淋	*kōrin*		○	
101. Excretion of sand-like matters via urine accompanied by extreme pain	沙石淋	*shasekirin*		○	
102. Gonorrhoea caused by stagnant *qi*	氣淋	*kirin*		○	
103. Acute gonorrhoea	卒患淋			○	
104. Frequent urination	小便頻数	*shōben henhinsaku*		○	
105. Often nocturnal involuntary urination	遺溺	*inyō*		○	
Defecation:					
106. Constipation	大便結	*daibenketsu*		○	
107. Obstruction of the bowels	大便閉	*daibenhei*		○	
108. No defecation and urination	大小便閉		*daishōben tomo ni tsūzezaru nari*		
109. Palsy	中風	*chūbu*			
110. Gout	通風	*tsūfū*		○	
111. Numbness or pain of the whole body or limps	痺症	*bishō*		○	
112. Externally contracted febrile diseases	傷寒	*shōkan*			
113. Epidemic diseases	時役	*jieki*	*yakubyō*		
114. Suffering caused by cold	中寒	*chūkan*		○	
115. Suffering caused by dampness	中湿	*chūshitsu*		○	
116. Suffering caused by heat	中熱	*chūnetsu*		○	
117. Heatstroke	霍乱	*kakuran*		○	○
118. Common cold	感冒	*kanbō*		○	
119. Various types of fever	発熱	*hatsunetsu*		○	
120. Diseases caused by phlegm	痰飲	*tanin*			
121. Asthma	喘息	*zensoku*		○	
122. Cough	欬嗽	*gaisō*	*seki*		
123. Pulmonary abscess	肺癰	*haiyō*		○	○
124. Lung wilting[1]	肺痿	*haii*		○	
125. Hiccough	呃逆	*izugyaku*	*shakuri*		
126. Vomiting	嘔吐	*ōto*	*hakikaeshi*		
127. Choking of food	噎食	*itsushoku*		○	
128. Regurgitation	反胃	*han'i*		○	
129. Diseases of stomach and spleen	内傷	*naishō*		○	
130. [Methods for] invigoration	補益	*hoeki*		○	
131. Mood disorders	諸氣	*shoki*		○	
132. Abdominal oppression	積聚	*shakuju*		○	
133. Damage caused by foods	飲食傷	*inshokushō*		○	
134. Diarrhoea	池瀉	*setsusha*	*kudarihara*		
Dysentery					
135. Dysentery accompanied by fever	熱痢	*netsuri*		○	
136. Dysentery accompanied by a cold feeling in the abdomen	冷痢	*reiri*		○	
137. Dysentery of reddish slimy content	赤痢	*shakuri*		○	
138. Dysentery of whitish slimy content	白痢	*byakuri*		○	
139. Dysentery with red and white slime	赤白痢	*shakubyakuri*		○	
140. Bloody dysentery	血痢	*ketsuri*		○	
141. Sanio-purulent dysentery	膿血痢	*nōketsuri*		○	
142. Sudden and painful stools	氣痢	*kiri*		○	
143. Long-lasting dysentery	久痢	*kyūri*		○	
144. Intermittently occurring dysentery	休息痢	*kyūsokuri*		○	

[1] Borrowed from Wiseman, 379.

145. Dysentery with no appetite	噤口痢	*kinkōri*		○	
146. Child dysentery together with infantile neurosis	小児疳痢	*shōni kanri*		○	
147. Various symptoms appearing after dysentery	痢後雑症	*rigozatsushō*		○	
148. Ague	瘧疾	*gyakushitsu*	*okori*		
149. [Dropsical] swelling	腫氣	*shuki*	*mukumi*		
150. Drum belly	鼓脹	*kochō*		○	
151. Jaundice	黄疸	*ōdan*		○	○
Sweating:					
152. Natural sweating	自汗	*jikan*		○	
153. Night sweats	盗汗	*tōkan*		○	
154. Various sweating symptoms	汗雑症	*ase zatsushō*		○	
155. Cloudy urine	白濁	*byakudaku*		○	○
156. Nocturnal emission	遺精	*isei*		○	
157. Thirst	消渇	*shōkatsu*	*kawaki no yamai*		
158. Abdominal pain	疝気	*senki*			
159. Worm diseases	諸蟲	*shochū*		○	
160. Heart palpitations caused by fright	驚悸	*kyōki*		○	
161. Insomnia	不寐	*fubi*		○	○
162. Forgetfulness	健忘	*kenbō*	*monowasure*		
163. Sea sickness and similar symptoms	起居雑症	*kikyo zatsushō*		○	
164. Consumption [tuberculosis]	勞症	*rōshō*		○	
165. Epilepsy	癲癇	*tenkan*		○	○
Blood symptoms:					
166. Spiting of blood	吐血	*toketsu*		○	
167. Coughing up blood	咯血	*kakuketsu*		○	○
168. Sputum mixed with blood	唾血	*daketsu*		○	
169. Bleeding tongue	舌血	*zetsuketsu*		○	
170. Nose bleed	衄血	*jikuketsu*	*hanaji*		
171. Simultaneous bleeding from mouth and nose	口鼻血	*kōbiketsu*		○	
172. Blood in urine	尿血	*nyōketsu*		○	
173. Bloody stools	下血	*geketsu*		○	
174. Simultaneous bleeding from nose, ears, eyes, mouth, urinary tract, and anus	九竅出血	*kyūketsu shutsuketsu*		○	
175. Bleeding from the pores of the body	毛孔出血	*mōkō shutsuketsu*		○	
176. Sudden death	卒死	*sotsushi*	*setsuji*		
177. Agonizing pain in chest and abdomen accompanied by a bloated belly	客忤	*kakugo*		○	
178. Sudden agonizing pain in chest, sides and abdomen accompanied by spiting of blood or nose bleeding	鬼撃	*kigeki*		○	
179. No awakening due to a pathogen agent	壓寐	*ōbi*		○	
180. Deathlike state	尸厥	*shiketsu*		○	
181. Possessed by an evil spirit	邪祟	*jasui*		○	
182. Hanging oneself	自縊	*jiitsu*	*kubikukuri*		
183. Death by drowning	溺死	*dekishi*		○	
184. Death from cold	凍死	*tōshi*		○	○
ABCESSES 癰瘡					
185. Shallow or deep abscesses or boils	癰疽[2]	*yōso*			○
186. Whitlow	瘭疽	*hyōso*		○	
187. Clove-like furuncle mostly appearing on the face or limps	疔	*chō*		○	
188. Scrofula	瘰癧	*ruireki*		○	○
189. Other boils and sores	諸瘍瘡	*shorōsō*		○	
190. Furuncle	瘡癤	*sōsetsu*	*nebuto*[3]		
191. Swelling due to toxin	腫毒	*shudoku*		○	
192. Hidden or dormant rash	癮疹	*inshin*		○	

[2] See also table *Kyūmin myōyaku*, entry 40.
[3] See *ibid*., entry 43.

193. Small sore generally appearing on the chest and invading the whole body	浸淫瘡	*shininsō*		○	○
194. Itch	疥癬	*kaisen*	*hizengai*		
195. Legging rash	臁瘡	*rensō*	*habakigasa*		
196. Tinea	癬瘡	*sensō*	*tamushi*		
197. Prickly heat	痱子	*fusshi*	*asebo*		
198. Whitlow of the finger	代指	*taishi*	*yubi byōso*		
199. Swollen and exuding finger or toe	嵌甲瘡	*kankōsō*		○	○
200. Diverse swellings of the leg and foot	脚足諸瘡	*kyakusoku shosō*		○	
201. Lump	癭瘤	*eiryū*	*kobu*		
202. Tinea versicolor	癜風	*denfū*	*namazu*		
203. Chilblains	凍瘡	*tōsō*	*shimodare*		
204. Chaps	皴裂	*shinretsu*		○	
205. Moxa blister	灸瘡	*kyūsō*		○	○
206. Swelling in the groin	便毒	*bendoku*	*yokone*		
207. Sore of the penis	下疳	*gekan*		○	
208. Lebrosy	癩風	*raifū*	*kattai*		
209. Lacquer tree rash	漆瘡	*shitsusō*	*urushikabure*		
210. Mole	痣	*shi*	*hokuro*		
211. Corn	疣目	*yūmoku*	*uo no me*		
212. Smallpox-like rash	豌豆瘡	*endōsō*		○	
213. Serpentinous red rash	蛇纏瘡	*jatensō*		○	
214. Scabies	湿瘡	*shitsusō*			
215. Other malign abscesses	諸般悪瘡	*shohan akusō*		○	
216. Incised wounds	金瘡	*kinsō*			
217. Arrow wounds	箭傷	*senshō*	*yamazu*		
218. Bruises	打撲傷	*teibokujō*	*uchimi*		
219. Fall from heights	墮傷	*dashō*		○	
220. Incised wound [tetany]	破傷風	*hashōfū*		○	
221. Painful sore caused by horse sweat	馬汗入瘡	*bakan sō ni iru*		○	
222. Burns and scalding	湯火傷	*tōkashō*	*yakedo*		
223. Insect bites	蟲獣傷	*chūjūshō*		○	
224. Splinter wounds by wood or bamboo	竹木刺	*chikubokushi*	*takeki no toge*		
225. Scratch wounds	爬傷	*hashō*	*kakiyaburi*		
WOMEN:					
226. Menstrual irregularities	月水不順	*gessui fujun*			
227. Absent menstruation	経閉	*keihei*		○	
228. Permanent [scant] menses	漏下	*rōge*		○	
229. Massive bleeding [beyond the cycle]	崩血	*bōketsu*		○	
230. Leucorrhea	帯下	*taiga*	*koshige*		
231. Diverse diseases during pregnancy	妊娠諸病	*ninshin shobyō*		○	
232. Stirring fetus	胎動	*taidō*		○	
233. Vaginal bleeding during pregnancy	胎漏	*tairō*		○	
234. [Signs of] giving birth	臨産	*rinzan*		○	
235. Difficult delivery	難産	*nanzan*		○	
236. Cross-birth	横産	*ōzan*	*yokozan*		
237. Breech-birth	逆産	*gyakuzan*	*sakako*		
238. Stillbirth	死胎	*shitai*		○	
239. Miscarriage	流産	*ryūzan*		○	
240. Retained afterbirth	胞衣	*hōi*		○	
241. Infant anal prolapse due to an open anus	子腸	*shichō*		○	○
242. Dizziness due to blood [disorders]	血暈	*ketsuun*		○	
243. Various symptoms after delivery	産後雑症	*sango zatsushō*		○	
244. Insufficient breast milk	乳汁少	*nyūjūshō*		○	
245. No release of breast milk	乳汁不通	*nyūjū futsū*		○	
246. Breast engorgement	妬乳	*tonyū*		○	
247. Mammary nodules	吹乳	*suinyū*		○	
248. Cracked nipples	乳頭裂	*nūtōretsu*		○	

249. Mammary node	乳核	*nyūkaku*		○	
250. Mammary abscess	乳癰	*nyūyō*		○	
INFANTS:					
251. [Diseases of] newborns	小児初生	*shōni shosei*		○	
252. Umbilical swelling	臍腫	*saishu*		○	
253. Unable to drink due to blisters in the mouth	臍風	*saifū*		○	
254. Pursed mouth	撮口	*satsukō*		○	
255. Closed mouth having white scales inside	鵝口	*gakō*		○	
256. Tonsilitis	乳蛾	*nyūga*		○	
257. Night crying	夜啼	*yatei*	*yonaki*		○
258. Scared by the unfamiliar	客忤	*kakugo*		○	
259. Infantile neurosis	疳症	*kanshō*	*kan no yamai*		
260. Red and swollen belly	癖疾	*hekishitsu*		○	
261. Infantile convulsion	驚風	*kyōfū*			
262. Smallpox	痘瘡	*tōsō*	*hōsō*		
263. Erysipelas	丹毒	*tandoku*		○	
264. Wandering edema	赤白遊風	*shakubyaku yūfū*		○	○
265. Blistering disease of the skin	天泡瘡	*tenhōsō*		○	
266. eczema on the mouth and nose due to malnutrition	疳瘡	*kansō*		○	
267. Fluid-filled pustules on the face and ears caused by infantile neurosis/malnutrition	甜瘡	*tensō*		○	
268. Other infant diseases	小児雑症	*shōni zatsushō*		○	

Table III: Diseases in *Kyūmin myōyaku*

Note: If there is no reading aid, the reading of the disease will be in square brackets

Disease	**Character**	**Reading**	**Additional reading/explanation**
1. Wind stroke	中風	*chūbu*	
2. (Epidemic) plaques	疫癘	*ekirei*	*yakubyō*
3. Upset stomach and antidote	食損並毒消し	*shokushō [narabi ni] dokukeshi*	
4. For bonito-fish poisoning	鰹酔たるに	*katsuo ni yoitaru ni*	
5. For fugu poisoning	河豚酔たるに	*fugu ni yoitaru ni*	
6. Antidotes for other fish poisoning	諸魚の毒解	*moromoro no uo no dokukeshi*	
7. For mushroom and fish intoxication	菌魚毒中に	*kusabira gyo doku ni ataru ni*	
8. Other antidotes	諸毒解	*sho dokukeshi*	
9. Consumption of a leech	水蛭を飲みたるに	*hiru o nomitaru ni*	
10. Alcohol intoxication	酒毒に	*shudoku ni*	
11. For poisoning from eating raw meat	生肉食て毒に	*namaniku shokushite doku ni*	
12. For crab poisoning	蟹乃毒に	*kani no doku ni*	
13. Medicines for snake bites	蛇咬乃薬	*hebikui no kusuri*	
14. Medicines for centipede bites	蜈蚣咬の薬	*mukade kui no kusuri*	
15. Bee sting	蜂に螫たるに	*hachi ni sasaretaru ni*	
16. Poisonous fish sting	毒魚刺たるに	*dokugyo sashitaru ni*	
17. Rat/mouse bites	鼠咬	*nezumi kui*	
18. Rat/mouse urine in eyes	鼠小便目に入	*nezumi no shōben me ni iru ni*	
19. Medicines for bamboo splinters	簽刺乃薬	*dokefuminuki no kusuri*	
20. Medicines for protruding arrowhead or [piece of] iron	矢根其外鐵立たる薬	*ya no ne sono hoka tetsu tachitaru [kusuri]*	
21. Medicines for a hard sharp item lodged in one's throat	喉どげの立たる薬	*nodo ni doge no tachitaru kusuri*	
22. Medicines for anal prolapse	脱肛乃薬	*dakkō no kusuri*	
23. Medicines for haemorrhoids	痔乃薬	*ji no kusuri*	
24. Medicines for convulsive fits [of infants and small children]	癇之薬	*tenkōyami no kusuri*	
25. Medicines for favus	白禿瘡薬	*shirakumo no kusuri*	
26. Scalp and other eczema	頭瘡諸瘡	*kamikasa moromoro no kasa*	
27. Medicines for underarm perspiration	狐臭の薬	*wakiga no kusuri*	
28. Medicines for mouse sores	鼠瘻[1]の薬	*nezumikasa no kusuri*	
29. Medicines for scrofula	瘰癧[2]薬	*ruireki [no kusuri]*	
30. Corns	魚目	*uo no me*	
31. Medicines for oedema	水腫の薬	*suishu [no kusuri]*	
32. Medicines for urinary retention	小便閉の薬	*shōbenhei [no kusuri]*	
33. Medicines for retention of faeces and urine	大小便閉薬	*dai shōbenhei no kusuri*	
34. Frequent urination	小便頻數	*shōben shigeki*	
35. Faecal blockage	大便閉	*daibenhei*	
36. Medicines for frequent urination	淋病[3]薬	*rinbyō kusuri*	
37. Infant stranguria	小児淋病	*shōni rinbyō*	
38. Medicine for other [forms of] stranguria	諸淋薬	*shōrin kusuri*	
39. Medicines for clove-like	疔[4]薬	*chō no kusuri*	

[1] Ch. *shu lou*; *Wamyō ruijūshō* explains it as swelling of the neck; *Hōgibu*, 1240. According to *CEWO* it is another name for *luo li* (Jp. *ruireki*); *CEWO*, 1762; for *luo li*, see entry 29.
[2] Ch. *luo li*, see also *CEWO*, 1901; it mentions more than ten other names for the same disease. See also *Hōgibu*, 1240-42.
[3] Ch. *lin bing*; most Japanese dictionaries translate the term as gonorrhoea; see also *NKD* 10/1151/b; in Wamyō ruijūshō it is also called *shibayubari* 之波由波利 and explained as frequent urination; *Hōgibu*, 1284. In *CEWO* and Wiseman, it is explained as dribbling or stranguria; *CEWO*, 1595; Wiseman, 583.

furuncles			
40. Medicines for shallow or deep abscesses or boils	癰疽[5]薬	*yōso no kusuri*	
41. Medicines for all kinds of swelling	諸腫物薬	*moromoro shumotsu kusuri*	
42. Oral medicines for all kinds of swelling and prickly heat	諸腫物小瘡の内薬	*shoshumotsu shōsō no naiyaku*	
43. Medicines for boils or furuncles	ねぶと[6]の薬	*nebuto no [kusuri]*	
44. Medicines for field rashes	肥前瘡[7]薬	*hizenkasa no kusuri*	
45. Medicines for rashes	くさがさ[8]の薬	*kusagasa no [kusuri]*	
46. Medicines for lower leg rashes	すねくさ[9]の薬	*sunekusa no [kusuri]*	
47. Medicines for rubella	風疹[10]の薬	*kazaboroshi no kusuri*	
48. Medicines for other rashes	諸瘡薬	*shosō [no kusuri]*	*moromoro no kasa [no kusuri]*
49. Medicines for scabs after moxibustion	灸瘡薬	*kyūsō [no kusuri]*	*maito [no kusuri]*
50. Medicines for lacquer poisoning	漆毒薬	*shitsudoku [no kusuri]*	*urushi ni kasetaru [no kusuri]*
51. Medicines for frostbites	霜焼薬	*shimoyake no [kusuri]*	
52. Medicines for phlegm	痰乃薬	*tan [no kusuri]*	
53. Healing sunstroke	治霍乱[11]	*kakuran [wo naosu]*	
54. Medicines for pain in the extremities	手足通薬	*shusoku itamu kusuri*	
55. Whitlow	ひょうそ[12]	*hyōso*	
56. Running ears	聤耳	*teiji*	*mimidare*
57. Medicine for insects getting into the ear	耳中へむし入りたる乃薬	*mimi no nakae mushi iritaru no kusuri*	
58. Medicines for deafness	耳聾の薬	*mimitsubure no kusuri*	
59. Medicines for pain caused by worms	寸白[13]の薬	*sunbaku no kusuri*	
60. Medicines for 'chest worms'	胸蟲[14]乃薬	*munemushi no kusuri*	
61. Medicines for abdominal pain related to worms	疝気寸白[15]薬	*senki subaku no kusuri*	
62. Medicines for painful swellings in the scrotum	疝気陰嚢腫薬	*senki innō hare [no kusuri]*	*ako hare[no kusuri]*
63. Medicines for abdominal pain	疝気[16]の薬	*senki no kusuri*	
64. Medicines for spasmodic abdominal pain	癪寸白[17]薬	*shaku subaku no [kusuri]*	
65. Medicines for throat impediment	喉痺乃薬	*kōhi no kusuri*	
66. Swelling and soreness of the throat	咽喉腫痛	*nodo hare itamu ni*	
67. Medicines for teeth rash	歯くさ[18]の薬	*hakusa no kusuri*	

[4] See table Fukyū ruihō, entry 187.
[5] According to *NKD*, *yō* 癰 refers to a shallow abscess or boil, whereas *so* 疽 is skin-penetrating or deep; *NKD* 10/766/b. In *CEWO* it is translated as carbuncle; *CEWO*, 1439. See also *Hōgibu*, 1229-1233.
[6] Generally translated as a blind boil or furuncle, *NKD* explains it as a kind of boil appearing on buttocks and thighs being red, hard and swollen and filled with pus. It is also used as a synonym for *chō* 疔 or *yō* 癰; *NKD* 8/659/a.
[7] A synonym for scabies (*kaisō* 疥瘡 or *kaisen* 疥癬, also called *hatakegasa* はたけ瘡), *Hōgibu* 1245-47; see also *NKD* 8/1414/d.
[8] *NKD* 3/1086/c and 1083/d; *Hōgibu*, 1219-24; see also chapter two.
[9] It is called lower leg rash, because it is confined to the lower legs. It is also called "wild goose rash" (*gangasa* 雁瘡), because the rash breaks out on the coming of the wild goose and heals by its going, see *NKD* 6/474/b; *Hōgibu*, 1243-44.
[10] See also *NKD* 9/265/d.
[11] Generally referring to sunstroke, but formerly it has been used in a more general sense for all diseases caused by heat linked with symptoms like vomiting, diarrhoea, *NKD* 2/1158/a; *Hōgibu*, 1200-01.
[12] See also *NKD* 9/159/c; *Hōgibu*, 1236-67.
[13] See also Hōgibu, 1435-39; Shirasugi, 68.
[14] See also Shirasugi, 68-70.
[15] See chapter three.
[16] Shirasugi, 68.
[17] *ibid*.

68. Toothache and inflammation of the gums	歯痛齦ただれ	*ha itami haguki tadare*	
69. Medicines for loose and hurting teeth	歯動痛薬	*ha ugoku itamu [kusuri]*	
70. Medicines for toothache	歯痛薬	*ha itamu [kusuri]*	
71. Medicines for carious teeth	蟲歯の薬	*mushiba no kusuri*	
72. Loose and hurting teeth due to strain	気詰歯動痛	*ki wo tsume ha ugoki itamu*	
73. Growth on an infant's tongue	小児舌胎	*shōni shita ni deki*	
74. Ulceration in the mouth	口中ただれ	*kōchū tadare*	
75. Headache	頭痛	*zutsū*	
76. Vertigo	眩暈	*ken'un*	memai no koto
77. Medicines for an upset stomach	翻胃薬	*hon'i no [kusuri]*	*shoku wo haku yamai*
78. Medicines for dry retching	乾嘔薬	*karaeduki [no kusuri]*	
79. Acid vomiting	吐酸	*tosan*	*suimizu wo haku yamai*
80. Medicines for five types of swallowing disorder	五膈[19]薬	*gokan no [kusuri]*	*haki yamai*
81. Hiccough	吃逆	*shakuri*	
82. Medicines for bruises	打身薬	*uchimi no [kusuri]*	
83. Bonesetting	接骨	*hone no tsugi*	*setsukotsu*
84. Medicines for the five *gan* in infants	小児五疳[20]薬	*shōni gokan no [kusuri]*	
85. Medicines for intermittent (malarial) fever in infants	小児瘧薬	*shōni okori no [kusuri]*	
86. Smallpox in infants	小児疱瘡	*shōni hōsō*	
87. Smallpox in eyes	疱瘡目入に	*hōsō me ni iru ni*	
88. Medicines for night blindness	雀目乃薬	*torime no [kusuri]*	
89. Medicines for corneal ulcer	つき目の薬	*tsuki [me] no [kusuri]*	
90. Black eye, cloudiness in front of the pupil, blindness	つき目うはひそこひ	*tsuki [me] uwai sokoi*	
91. Medicines for eye diseases	やみめの薬	*yamime no [kusuri]*	
92. For other eye diseases	目の諸病に	*[me] no shobyō ni*	
93. Medicines for conjunctivitis due to gonorrhea	風眼乃薬	*fūgan no [kusuri]*	
94. Medicines for beriberi	脚気乃薬	*kakke no [kusuri]*	
95. Preventive medicine for malaria	瘧の截薬[21]	*okori no kiri [gusuri]*	
96. Medicines for malaria	おこりの薬	*okori no [kusuri]*	
97. Medicines for nosebleed	鼻血の薬	*hanaji no [kusuri]*	
98. Styptics	血とめ	*chitome*	
99. Medicines for vomiting blood	吐血薬	*toketsu no [kusuri]*	
100. Medicines for bloody stool	下血のくすり	*geketsu no [kusuri]*	
101. Burns	湯火傷	*tōkashō*	*yakedo*
102. Mammary growth	乳癰[22]	*nyūyō*	*chi no me*
103. Dysentery	痢病	*ribyō*	*akaname*
104. Lumbar pain with vaginal discharge (whites)	腰痛帯下	*yōtsū taige*	*koshiitami koshike*
105. Medicines for difficult delivery	難産の薬	*nanzan no [kusuri]*	
106. Abdominal pain caused by dead embryo	胎死腹中痛	*taishi fukuchū itamu*	
107. Not descending afterbirth	胞衣不下	*nochi no mono*	*ena orizaru ni*
108. Marvellous medicines for chancre	下疳[23]妙薬	*gekan no myōyaku*	
109. Abdominal pain	腹痛[24]	*fukutsū*	*hara no itami*

[18] In *Nippo jisho* it is translated as a tooth disease (*ha no byōki* 歯の病気), which might refer to an abscess of the teethridge or inflammation of the gums, *NKD* 8/888/d.

[19] Ch. *wu ge*, dysphagia caused by melancholy, anxiety, disorder of *qi*, cold and heat. It may also refer to dysphagia caused by melancholy, anxiety, anger, overjoy and fear; *CEWO*, 272.

[20] See chapter three.

[21] Medicine for malaria is called *kirigusuri* 截薬, *NKD* 3/925/c.

[22] See also *Hōgibu*, 1507-08.

[23] *Ibid*., 1284-85.

110. Medicines for ringworm (tinea)	たむしの薬	*tamushi no [kusuri]*	
111. Medicines for excema caused by ringworms	くさたむしの薬	*kusa tamushi no [kusuri]*	
112. Revitalising medicines	補薬	*oginai kusuri*	*hoyaku*
113. How to have a healthy and prolonging life	無病延命の術	*mubyō enmei no jutsu*	
114. Methods for saving from sudden death	救卒死方	*sotsushi sukuu hō*	
115. Carrying pepper with one when going on a journey	旅立する者胡椒持事	*tabitachi suru mono koshō motsu koto*	
116. Carrying a pond snail with one when going to other provinces	他国へ行者田螺を持こと	*takoku e yuku mono tanishi wo motsu koto*	
117. Intake of water during the cold	寒の内に水を服する	*kan no uchi ni mizu wo fukusuru*	
118. Preparation of a meal in the case of food poisoning	食傷に食事用る事	*shokushō ni shokuji mochiyuru koto*	
119. Preparation of a meal when having dysentery	痢病に食事用る事	*ribyō ni shokuji mochiyuru koto*	
120. After the occurrence of an attack	瘧病後の事	*okori yande nochi no koto*	
121. After a febrile disease	熱病後の事	*netsubyō no nochi no koto*	
122. Drinking rice wine and spirits	酒并焼酎を呑ての事	*sake narabi ni shōchū wo nomite no koto*	
123. For deer eating persons	鹿を食する人の事	*shika wo shokusuru hito no koto*	
124. Garden balsam	鳳仙花[25]事	*hōsenka no koto*	
125. Hosta/giboshi	玉簪[26]	*unai*	*gibōshi*
126. Infants born with a tooth	初生乃小児歯のはえる事	*shosei no shōni ha no haeru koto*	
127. Infants only fed by milk	小児乳汁許事	*shōni nyūjiru bakari no koto*	
128. Abortion	堕胎の事	*datai no koto*	*ko to orosu no koto*
129. Food not to be eaten	食物有過事	*shokumotsu ni ayamachi aru koto*	
130. Food [damaging] when eaten together	くい合の事	*kuiawase no koto*	

[24] A symptom that covers ailments such as heatstroke (*kakuran*), diarrhoea, lumbago, food poisoning etc., *Hōgibu*, 810-11.
[25] Botanical name: Impatiens balsamina; Suzuki H., 84, 299.
[26] The young leaves of the plant are used as food; http://en.wikipedia.org/wiki/Hosta (accessed November 7th, 2013); see also *Hōgibu*, 1082.

Table IV: Acupuncture points used for moxibustion in *Kōkei saikyūhō*

Point	Translation	Abbreviation	Japanese	Chinese	Indication
1. 合谷	'union valley'	LI 4	gōkoku	he gu	Wind Stroke[1]
2. 手三里	*'arm third hamlet of arm'*	LI 10	*te no sanri*	*shou san li*	Dizziness Caused by Puncturing[2]
3. 地倉	*'earth granary'*	ST 4	*chisō*	*di cang*	Wind Stroke[3]
4. 頬車	*'cheek carriage'*	ST 6	*kyōsha*	*jia che*	Wind Stroke[4]
5. 天枢	*'celestial pivot'*	ST 25	*tensū*	*tian shu*	Yang Collapse, Food Reversal, Sudden Turmoil, Chronic Infantile Convulsion[5]
6. 伏兎	*'crouching rabbit'*	ST 32	*fukuto*	*fu tu*	Beriberi Attacking the Heart[6]
7. 犢鼻	*'calf's nose'*	ST35	*tokubi*	*du bi*	Beriberi Attacking the Heart[7]
8. 三里	*'third hamlet'*	ST 36	*sanri*	*san li*	Wind Stroke, Beriberi Attacking the Heart[8]
9. 上廉[9]	*'upper side wall*	ST 37	*jōren*	*shang lian*	Beriberi Attacking the Heart[10]
10. 下廉[11]	*'lower side wall*	ST 39	*geren*	*xia lian*	Beriberi Attacking the Heart[12]
11. 隠白	*'hidden white'*	SP 1	*inpaku*	*yin bai*	Wind Stroke, Yang Collapse, Heat Stroke, Death by Hanging[13]
12. 大都	*'daito'*	SP 2	*daito*	*da tu*	Sudden Turmoil[14]
13. 承筋	*'sinew support'*	BL 56	*shōkin*	*cheng jin*	Sudden Turmoil[15]
14. 承山	*'mountain support'*	Bl 57	*shōzan*	*cheng shan*	Sudden Turmoil[16]
15. 湧泉	*'gushing spring'*	KI 1	*yusen*	*yong quan*	Heat stroke, Sudden Turmoil, Acute Infantile Convulsion, Fright Wind[17]
16. 間使	*'intermediary courier'*	PC 5	*kanshi*	*jian shi*	Sudden Turmoil[18]
17. 大陵	*'great mound'*	PC 7	*dairyō*	*da ling*	Sudden Turmoil[19]
18. 翳風	*'wind screen'*	TE 17	*eifū*	*yi feng*	Wind Stroke[20]
19. 聴会	*'auditory convergence'*	GB 2	*chōe*	*ting hui*	Wind Stroke[21]
20. 肩井	*'shoulder well'*	GB 21	*ken'i*	*jian jing*	

[1] *Kōkei saikyūhō* I, 6a, 11a.
[2] *Ibid*., 76a-b.
[3] *Ibid*., 6a, 10a.
[4] *Ibid*., 6a, 8b.
[5] *Ibid*., 16b, 19b, 32a, 37a; *ibid*. III, 50b.
[6] *Ibid*. I, 62a, 64a.
[7] *Ibid*., 62a, 64b.
[8] *Ibid*., 6a, 13a, 62a, 65b.
[9] Abbreviated form of *kokyo jōren* (Ch. *ju xu shang lian* 巨虚上廉); the point in general is referred to as *jōkokyo* (Ch. *shang ju xu* 上巨虚), but Motonori sticks to the variation *jōren* used in the *Divine Pivot* (Ch. *ling shu*, Jp. *reisū* 霊枢) of the *Huang di nei jing*. The name of the point should not to be confused with LI 9 of the same name located on the arm; see *SJK*, 205-6, 118.
[10] *Kōkei saikyūhō* I, 62a, 66a.
[11] Analogous to *jōren*, *geren* is the abbreviation of *kokyo geren* (Ch. *ju xu shang lian* 巨虚下廉), which in general is referred to as *gekokyo* (Ch. *xia ju xu* 下巨虚). Here too, Motonori uses to the variation *geren* which is found in the *Divine Pivot*. This point also should not to be confused with LI 8 of the same name located on the arm; see *SJK*, 207-8, 117-8.
[12] *Kōkei saikyūhō* I, loc.cit.
[13] *Ibid*., 6a, 10b, 16a, 23b; *ibid*. III, 7b.
[14] *Ibid*. I, 37a, 40b.
[15] *Ibid*. I, 37b, 38a, 41b, 42a.
[16] *Ibid*., 37b, 41b, 42a.
[17] *Ibid*. I, 23b, 38a, 41a; *ibid*. III, 67a, 98a.
[18] *Ibid*. I, 36a, 39a-b.
[19] *Ibid*., 37a, 39a-b.
[20] *Ibid*. I, 6a, 9b.
[21] *Ibid*., 6a, 9a.

21. 風市	*'wind market'*	GB 31	*fūji*[22]	*feng shi*	Wind Stroke, Yang Collapse, Beriberi Attacking the Heart[23]
22. 絶骨	*'intermitted bone'*[24]	GB 39	*zekkō*	*jue gu*	Wind Stroke, Yang Collapse, Beriberi Attacking the Heart, [25]
23. 章門	*'gate of brightness'*[26]	LR 13	*shōmon*	*zhang men*	Wind Stroke, Yang Collapse, Acute Infantile Convulsion[27]
24. 大椎	*'great hammer'*	GV 14	*daizui*[28]	*da zhui*	Wind Stroke, Sudden Turmoil[29]
25. 百会	*'hundred convergences'*	GV 20	*hyakue*	*baihui*	Wind Stroke, Sudden Turmoil, Epilepsy, True Headache[30]
26. 上星	*'upper star'*	GV 23	*jōsei*	*shang xing*	Nosebleed[31]
27. 人中	*'human centre'*[32]	GV 26	*ninchū*	*ren zhong*	Wind Stroke, Yang Collapse, Death by Hanging[33]
28. 会陰	*'meeting of yin'*	CV 1	*ein*	*hui yin*	Becoming Unconcious during Intercourse[34]
29. 関元	*'main gate'*	CV 4	*kangen*	*guan yuan*	Accumulation of Phlegm in the Throat, Death by Cold[35]
30. 氣海	*'sea of qi'*	CV 6	*kikai*	*qi hai*	, Wind Stroke, Yang Collapse, Becoming Unconscious during Intercourse, Sudden Turmoil, Death by Cold, Chronic Infantile Convulsion[36]
31. 陰交	*'yin intersection'*	CV 7	*inkō*	*yin jiao*	Yang Collaps, Sudden Death Due to Unexpected Fear[37]
32. 神闕	*'spirit gate tower'*	CV 8	*shingetsu*[38]	*shen que*	Yang Collapse, Chronic Infantile convulsion[39]
33. 水分	*'water divide'*	CV 9	*suibun*	*shui fen*	Sudden Death Due to Unexpected Fear, Sudden Turmoil[40]
34. 下脘	*'lower stomach duct'*	CV 10	*gekan*	*xia wan*	Sudden Turmoil[41]
35. 建里	*'strengthened hamlet*	CV 11	*kenri*	*jian li*	Sudden Turmoil[42]
36. 中脘	*'central stomach duct*	CV 12	*chūkan*	*zhong wan*	Yang Collapse, Food Reversal, Sudden Turmoil, Sudden Pain in Chest and Abdomen[43]
37. 上脘	*upper stomach duct*	CV 13	*jōkan*	*shang wan*	Sudden Turmoil[44]
38. 巨闕	*'great tower gate'*	CV 14	*koketsu*	*ju que*	Sudden Turmoil[45]

[22] Generally called *fūshi*; *SKJ*, 293.
[23] *Kōkei saikyūhō* I, 6a, 16a, 62a, 63b.
[24] Also known as "hanging bell" (Ch. *yuan zhong*, Jp. *kenchō* 懸鐘); *SKJ*, 299.
[25] *Kōkei saikyūhō* I, 6a, 13b, 16a, 62a, 66b.
[26] There are several interpretations concerning the character 章; Porkert translates it as 'decorated' whereas Wiseman reads it as 'camphorwood'. *Shinkyū keiketsu jiten*, on which this translation is based upon, refers to the liver that symbolises springtime, clarity, a clear day in springtime, and therefore translates the character as 'clear', bright' (*akiraka* 明らか); *SKJ*, 363; Porkert, 320; Wiseman, 749.
[27] *Kōkei saikyūhō* I, 6a, 12b, 16a; *ibid*. III, 90a-b.
[28] Generally called *daitsui*; *SKJ*, 379.
[29] *Kōkei saikyūhō* I, 6a, 7a, 12a, 38a.
[30] *Ibid*. I, 6a-7a, 16a
[31] *Ibid*. II, 17a, 19b.
[32] Also known under the name "water ditch" (Ch. *shui gou*, Jp. *suikō* 水溝); *SKJ*, 390.
[33] *Ibid*. I, 6a, 7b 16a; *ibid*. III, 7b.
[34] *Ibid*. I, 21b. On this point, no moxa is applied but strong finger pressure recommended.
[35] *Ibid*. I, 6a, 17b, 37b; *ibid*. III, 13b.
[36] *Ibid*. I, 6a, 11b, 16b, 17b, 21a, 37b, 38a; *ibid*. III, 13b, 90b.
[37] *Ibid*. I, 17a-b, 34a.
[38] Generally called *shinketsu*; *SKJ*, 404; Kinoshita, 41.
[39] *Kōkei saikyūhō* I, 17a, *ibid*. III, 90b.
[40] *Ibid*. I, 34a, 37b, 43a.
[41] *Ibid*., 45a, 46a. This point is used for locating an 'impediment' in the stomach.
[42] *Ibid*., 37b, 43a.
[43] *Ibid*. I, 16b, 19a, 32a, 36b, 45b, 47b; *ibid*. II, 33b.
[44] See footnote 34.
[45] *Ibid*. I, 36b-37a, 42b.

39. 膻中	*'chest center'*	CV 17	*danchū*	*dan zhong*	Yang Collapse[46]
40. 承漿	*'sauce receptacle'*	CV 24	*shōshō*	*cheng jiang*	Wind Stroke, Yang Collapse, Acute and Chronic Infantile Convulsion[47]
41. 膝眼	*'eye of the knee'*	Ex-LE 5	*shitsugan*	*xi yan*	Beriberi Attacking the Heart[48]
42. 外踝尖上	*'at the top of the external ankle'*	Ex-LE 9	*soto kurobushi no togari*		Sudden Turmoil[49]
43. 大指の爪甲際	*'at the edge of the big toe nail'*	o.l.	*ashi no ōyubi no tsumegiwa*		Sudden Turmoil[50]
44. 足の大指の本筋	*'on the main muscle of the big toe'*	o.l.	*ashi no ōyubi no motosuji*		Sudden Turmoil[51]
45. 項の後髪の際	*'at the posterior hairline*	o.l.	*unaji no ushirogami no haegiwa*		Nose Bleed[52]

Abbreviations:

LI: Large intestine meridian (j: *te no yōmei daichōkei*, ch: *shou yang ming da chang jing xue* 手陽明大腸経)

ST: Stomach Meridian (j: *ashi no yōmei ikei*, ch: *zu yang ming wei jing xue* 足陽明胃経)

SP: Spleen Meridian (j: *ashi no taiin hikei*, ch: *zu taiyin pi jing xue* 足太陰脾経)

BL: Bladder Meridian (j: *ashi no taiyō bōkōkei*, ch: *zu tai yang pang guangjing xue* 足太陽膀胱経)

KI: Kidney Meridian (j: *ashi no shōin jinkei*, ch: *zu shao yin shen jing xue* 足少陰腎経)

PC: Pericardium Meridian (j: *te no ketsuin shinpōkei*, ch: *shou jue yin xin bao jing xue* 手厥陰心包経)

TE: Triple Energizer Meridian (j: *te no shōyō sanshōkei*, ch: *shou shao yang san jiao jing xue* 手少陽三焦経)

GB: Gallbladder Meridian (j: *ashi no shōyō tankei*, ch: *zu shao yang dan jing xue* 足少陽胆経)

LR: Liver Meridian (j: *ashi no ketsuin kankei*, ch: *zu jue yin gan jing xue* 足厥陰肝経)

GV: Governor Vessel (j: *tokumyaku*, ch: *du mai xue* 督脈)

CV: Conception Vessel (j: *ninmyaku*, ch: *ren mai xue* 任脈)

Ex-LE: Extra points at the lower extremities[53]

o. l.: other locations used as points for moxibustion

Not used meridians are lung meridian (j: *te no taiin heikei*, ch: *shou tai jin fei jing xue* 手太陰肺経), heart meridian (j: *te no shōin shinkei*, ch: *shou shao yin xin jing xue* 手少陰心経), and small intestine meridian (j: *te no taiyō shōchōkei*, ch: *shou tai yang xiao chang jing xue* 手太陽小腸経).

[46] *Ibid*. I, 16a, 18a.
[47] *Ibid*. I, 6a, 8a.
[48] *Ibid*., 65a.
[49] *Ibid*., 38a, 39b-40a.
[50] *Ibid*., 38b, 39b-40a.
[51] *Ibid*.
[52] *Ibid*. II, 19b.
[53] These are extra points, which do not belong to the regular acupuncture points, and which are mostly located outside of the regular channels. There is no single nomenclature for them; depending on the references, the point Ex-LE 5 for example becomes Ex-LE 2, and Ex-LE 9 refers to a different point in *SKJ*; see *Leitfaden Traditionelle Chinesische Medizin*, 293, 308; *SKJ*, 429-30.

ABBREVIATIONS:

NJD *Nihon jinmei daijiten*

CEWO *Chinese-English Chinese Traditional Medical Word-Ocean Dictionary*

KD *Kokushi daijiten*

NKD Nihon kokugo daijiten

SKJ *Shinkyū keiketsu jiten*

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