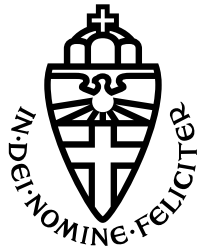


RADBOUD UNIVERSITY



Faculty of Arts

**Anonymous Treatise on Rosemary in MS O.1.13 of the Trinity
College Library, Cambridge**

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Abstract

The anonymous prose treatise ‘the virtues of rosemary’ has not been formally edited and published before, despite its apparent popularity in the late Middle Ages. This thesis will print a semi-diplomatic edition of an anonymous prose treatise on rosemary in MS O.1.13 f.12v-14v of the Trinity College Library, Cambridge. The edition is preceded by several comprehensive introductions to provide cultural and historical context to the treatise and its contents. The purpose of this thesis is to bridge the gap between medieval studies and biochemical research and to show the relevance of medieval medical treatises in current scholarship. Comparison of the remedies and recipes from the treatise to modern biochemical science shows that the application of rosemary in these situations may have been more beneficial than previously thought. While the rosemary-based remedies from several centuries ago are not as effective as contemporary synthetic drugs and antibiotics, they likely were the best available and could be used to effectively treat various afflictions. Medical treatises such as ‘the virtues of rosemary’ can inspire modern day scientists to take naturally occurring therapeutic properties of common plants and use those as basis for new remedies.

treatise, rosemary, recipe collection, edition

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Introduction

The plant rosemary, *Salvia rosmarinus*,¹ was well known in the late Middle Ages in England. Its importance is evident from the relatively many medieval scientific and medical manuscripts describing its applications. While knowledge from the Middle Ages is generally regarded as outdated or inaccurate, it may be more relevant than previously thought.

The study of medieval manuscripts and their contents has decreased in popularity over the last few decades. Especially the creation of editions from manuscripts is no longer regarded as relevant to modern medieval scholarship. Following the Second World War, philology was no longer seen as the best approach for studying pre-modern texts, so researchers focussed more on specific topics rather than attempting to bring the hidden knowledge out in the open. As a result, most scholars who dove into the world of medieval writings show a preference for medieval literature in the modern sense, such as the works of Chaucer or Romances detailing the heroic deeds of king Arthur's knights.

In medieval England many other topics were also considered literature, including science and medicine. For historians of science, these texts give a wealth of information about scientific and medical thought development. The largest developments in scientific and medical thinking occurred throughout the various periods spanning the fifth century to sixteenth century: in the early Middle Ages, once western medieval scholars got access to Latin texts surviving from ancient Greece and the Roman empire; in the High Middle Ages, with the establishment of universities and access to even more translated works from antiquity; and in the late medieval/early modern period, with the spread of

1. Before 2017 rosemary was known as *Rosmarinus officinalis* which is still a synonym in use for this plant species. Researchers of botany have concluded the herb is very closely related to sage and therefore it was decided to change its official scientific name (Drew et al., 'Salvia United').

printing technology and the founding of scientific societies. Naturally, many researchers have studied the surviving materials extensively and have based their research on the most well-known available texts.

The large amount of studies detailing the importance and relevance of handwritten texts in early Middle English and the existence of scholarly corpus focussed on printed texts in late Middle English show that little research has been done on handwritten texts from the late Middle Ages. The few conducted studies in this field are mostly comparative, lacking focus on the actual content of the late medieval texts. Scholars have deemed complete versions of larger texts more valuable than shorter fragments and assumed that the late Middle Ages printed texts were more accurate and more up to date than any handwritten versions in circulation. As a consequence, the handwritten texts as found in late medieval composite manuscripts are largely ignored as scholars try to increase their understanding of medieval scientific and medical culture.

Several libraries throughout the British Isles house large collections of medieval manuscripts, stored there primarily for preservation purposes. During the second half of the twentieth century, various scholars attempted to chart extant manuscripts to create an overview of all available manuscripts written in Middle English. These efforts resulted in works such as *The Index of Printed Middle English Prose*, a survey of all editions of Middle English prose manuscripts up to 1985.² In the extensive series *A Manual of the Writings in Middle English*, experts in the field of Middle English literature compiled an index of all collected Middle English manuscripts, grouped them per subject, and described all manuscript versions of each text.³ Of the circa ten thousand extant scientific and medical manuscripts written in Middle English, less than

2. Edwards, *IMEP - Index of Middle English Prose*.

3. Keiser, *A Manual of the Writings in Middle English 1050-1500*.

one hundred have been published in modern editions.⁴

Volume X of the *Manual* lists all manuscripts that deal with science and medicine, including herbals and other texts on the application of herbs in medicine. Of the texts describing the uses of plants in medieval England, most are herbals or fragments thereof. One text is a collection of short treatises of the most common herbs used in medicine. Surprisingly, only two of the most common herbs have been discussed separately in texts to such a degree to warrant their own group of texts, those being rosemary and betony.⁵ Combined with the relatively large number of surviving versions of these treatises, it shows that the two herbs played an important role in medieval culture.

On the topic of rosemary, four different texts can be grouped together, two in verse and two in prose. One of the prose texts and its variants are copies of the text translated by Friar Henry Daniel as commissioned by the Countess of Hainault.⁶ The other anonymous text and its variants describe the virtues of rosemary and its medicinal applications. In the book *Health and Healing from the Medieval Garden*, Keiser presents a comparative study of 33 manuscript versions of this anonymous prose text on rosemary which provides a clear picture of the origins of the text and how it may have been copied, translated and edited by various scribes.⁷ However, no previous study has researched the contents of this particular treatise or formally edited and published it.

This thesis will print a semi-diplomatic edition of this anonymous treatise of rosemary in MS O.1.13 of the Trinity College Library, Cambridge, preceded by several introductions with regards to the medicinal and cultural applications of the herb to show the link between modern biomedical research and historical knowledge.

4. Taavitsainen and Pahta, *Medical and Scientific Writing in Late Medieval English*, 4.

5. Keiser, *A Manual of the Writings in Middle English 1050-1500*.

6. Mäkinen, 'Henry Daniel's Rosemary in MS X.90 of the Royal Library, Stockholm.'

7. Keiser, 'Rosemary: Not Just for Remembrance.'

First, I will discuss the historical development of medicine from antiquity until the early modern period to place the treatise within its contemporary context; followed by a section describing medieval medical practitioners and their medical framework. Finally, I will discuss remedies as they appear in medical texts and their effectiveness and analyse several remedies mentioned in the treatise.

Historical perspective on medicine

Antiquity

The medical culture of the Middle Ages cannot be understood without a brief overview of the previous developments in medical knowledge. The earliest medical sources are usually dated to the fifth century BCE from ancient Greece. Prior to this, scripture was hardly used and there was a strong oral tradition to transfer knowledge. The ancient Greeks were regarded as the founders of western science, even though they based their theories on existing knowledge from older societies, like ancient Egypt. There are a few surviving papyrus scrolls from 1900 BCE to 1200 BCE that describe the medical knowledge from ancient Egypt.⁸ Nevertheless, the Greek Hippocrates is seen as the ‘forefather of medicine’. He is associated with a large number of texts written during the fifth and fourth centuries BCE. These Hippocratic texts contained the natural philosophy theory that every phenomenon had a natural cause that was not based on religion or mythology. There was a strong overlap between natural philosophy and medicine. Some elements of natural philosophy can be found in Hippocratic texts, some natural philosophers wrote about medical topics in their philosophical texts. For example, the philosopher Aristotle⁹ (fourth century BCE) was also interested in

8. Brandt-Rauf and Brandt-Rauf, ‘History of Occupational Medicine.’

9. Aristotle is well known for his writings on a wide range of subjects, including physics, biology, zoology, poetry, music, economics and politics.

medicine and found a strong connection between medicine and natural philosophy. His theories on the four elements and his views on the methods of gathering scientific knowledge were very influential on later science and medicine in antiquity.¹⁰

In the first century BCE, the Romans had completely conquered ancient Greece and incorporated great parts of Greek culture into their own culture. Greek medicine was highly regarded in the Roman empire and many physicians were of Greek origin or had been educated in one of the medical schools. In the following centuries, Greek was the fashionable language for educated inhabitants of the empire and also the main language of medicine and philosophy. The Roman Empire was at its height during the first three centuries CE. During this period, Roman scholars worked on their own style of medicine. While based on the existing work of the Greek philosophers and physicians, Roman medicine was characterised by a great deal of folk medicine, herbalism, and mythological traditions.

At the end of the fourth century, Christianity became the state religion and was spread through all Roman provinces, by the establishment of monasteries and sanctuaries throughout the empire. Several of these sacred sites were used for religious and medical instruction, with more room for the supernatural and magic.

By the fifth century, the Roman Empire had become unstable to such a degree that it broke up into the Western and Eastern Empires. In the Eastern Empire, Greek remained the main language of science, where medicine and natural philosophy continued to develop. In the West, Latin had become the common language, which meant that people no longer had access to earlier Greek medical texts.¹¹

10. Siraisi, *Medieval and Early Renaissance Medicine*, 2–3.

11. Siraisi, *Medieval and Early Renaissance Medicine*, 5–7; Getz, *Medicine in the English Middle Ages*, 36–7.

Middle Ages

Before we focus on the history of medicine in medieval England, it is necessary to show what happened in the Mediterranean in the centuries following the decline of the western Roman empire.

In the seventh and eighth centuries CE, Islam spread very rapidly through the Middle East and the Mediterranean following the rapid conquest of the Arab caliphate from the Arabian peninsula. This expansion required a high level of administration and many learned men. In turn, the caliphate invested heavily in education and this resulted in rapid developments in science and technology. Naturally, Islamic scholars used the existing knowledge as preserved and taught in places like Constantinople and Alexandria to further their own studies. As a consequence, many Greek texts were translated and adapted to the Islamic scientific framework. The Arabic translations of these texts contained comments from the Islamic scholars who also added their own observations. These translations were distributed throughout the caliphate, including the Iberian peninsula and the island of Sicily. Here, in the eleventh century CE Islamic scholars came into contact with European scholars who in turn translated these texts into Latin.¹²

The period between the end of the Roman empire until the ninth century is generally portrayed as the European Dark Ages with regard to science and medicine. However, it may be more accurate to see these centuries as a transitional period during which European societies changed significantly in their organisation and worldview. In the rapidly changing world following the fifth century the peoples on the continent sought solace and reassurance in religion. Moreover, societies became more rural following the

12. Saliba, 'Greek Astronomy and the Medieval Arabic Tradition'; Getz, *Medicine in the English Middle Ages*, 38; Siraisi, *Medieval and Early Renaissance Medicine*, 11; Jones, *Medieval Medical Miniatures*, 27; Ali, 'Medieval Europe: The Myth of Dark Ages and the Impact of Islam.'

decline of cities as centres for trade and learning. Education shifted primarily to monasteries because the spreading and gaining of knowledge was essentially a religious activity.¹³

In Anglo-Saxon England the basis of medicine was a mixture of native natural medicine and medical theory inherited from the Roman empire. Both in Anglo-Saxon England and the European continent, Latin remained the language of science. Only a few texts were translated or compiled in Old English, such as *Bald's Leechbook* and the *Lacnunga*.¹⁴ The clergy was educated in the healing arts in monasteries, where they copied, edited, summarised, and organised surviving Latin texts on medical theory and herblore. As a consequence medicine and Christianity were firmly intertwined, which is evident from the two major approaches to healing, i.e. religious and secular healing.¹⁵ Religious healing is based on a dogma laid out in the earliest medieval church writings, which states a healthy body and soul are directly connected. Illness and injuries were seen as the consequences of sinning, so sickness was attributed to divine retribution and punishment.¹⁶ A healthy, good and pure soul would be reflected in a healthy and whole body, so for healing one required a member of the clergy or a saint who could administer prayers, blessings or miracles to cure the afflicted. Secular healing, where a medical practitioner would administer natural medicines or perform surgery, was an accepted alternative, but it was deemed less effective than religious healing. Magical cures were applied as well in case of illness, but it was often seen as a short-term solution and the church was explicit in that all magics defiled the soul and the patient would always pay the price for using those methods.¹⁷ Nevertheless, the number of surviving texts detailing magical remedies suggest that these were used

13. O'Boyle, 'Medicine, God, and Aristotle in the Early Universities'; Mavroudi, 'Translations from Greek into Latin and Arabic during the Middle Ages.'

14. Rampton, 'Trafficking with Demons.'

15. O'Boyle, 'Medicine, God, and Aristotle in the Early Universities.'

16. Siraisi, *Medieval and Early Renaissance Medicine*, 8.

17. Rampton, 'Trafficking with Demons.'

frequently despite the disapproval of the church.

At the end of the eleventh century and throughout the twelfth century CE, the scientific and medical texts that were written, translated, and compiled by Islamic scholars were translated into Latin by European scholars. Through these efforts some of the previously lost ancient Greek knowledge and the recently added Arabic knowledge became available to the Latin-speaking west, most important for the development of medieval medical thought were translations of Arab commentaries on the works of Hippocrates, Aristotle, and Galen.¹⁸

The urbanisation of medieval society following the eleventh century gave rise to the establishment of guilds and other organisations;¹⁹ members of these guilds were seen as the rightful practitioners of each trade or craft. Education in England during the High Middle Ages was thus the territory of guilds' teaching masters and their students. These masters established schools all over the continent. Over time, these schools became more organised and developed into universities.²⁰ At this time, translations of Aristotle's works regarding science, law, theology, natural philosophy and art became widespread throughout the European continent, which were regarded as the ultimate authority in all fields of scholarship. These texts formed the basis of all university teaching, which were supplemented with texts from other scholars like Galen, especially with regards to medicine. Medicine became an established university discipline, taught to all university students as part of their general education. After finishing their general education they could specialise in medicine and become a physician.²¹

All university disciplines were taught in Latin, so the teaching materials were produced

18. Siraisi, *Medieval and Early Renaissance Medicine*, 14; Getz, *Medicine in the English Middle Ages*, 38.

19. Siraisi, *Medieval and Early Renaissance Medicine*, 18.

20. Grant, *The Foundations of Modern Science in the Middle Ages*.

21. O'Boyle, 'Medicine, God, and Aristotle in the Early Universities.'

in Latin as well. During the late Middle Ages more scholars translated or wrote their works into the vernacular, following the development of English becoming the standard language in England. Once Middle English became more prevalent as a learned language, any person who could read could study translated medical texts. These texts were generally based on Latin university reading materials. Only after non-university schooled healers had access to medical texts, more texts were produced in the vernacular. As a result, these texts shifted focus from anatomy, causes of disease and refinement of humoral theory to diagnosis, prognosis, and prevention and treatment of disease.²² Because medicine was considered general knowledge for learned men, not all of those who wrote medical texts actually also practised medicine as a profession.²³

Medical practitioners

In the fourteenth and fifteenth century, medicine was practised by a variety of people. Depending on the societal class and location different people were available to perform medical services. In medieval cities it was common for apothecaries to make diagnoses and provide medicines for the middle classes. The lower class was dependent on empirical healers, such as wise women, cunning folk, herbalists or others who had sufficient knowledge of the healing arts. It was the upper class who relied most on the services of a university trained physician. However, most medical care was provided within the homes of the people, where women were the principal providers of remedies. Only the poorest relied on hospitals, of which only a limited number existed.²⁴

Moreover, one could say that two main categories of healers existed in medieval society,

22. Jones, *Medieval Medical Miniatures*, 32.

23. Getz, *Medicine in the English Middle Ages*, 16.

24. Siraisi, *Medieval and Early Renaissance Medicine*, 146; Taavitsainen and Pahta, *Medical and Scientific Writing in Late Medieval English*, 19.

the tradespeople and the clerics. Clerical practitioners performed healing as part of their duties in a religious setting, such as the monks or friars who practised both natural medicine and religious healing. The tradespeople are those who practise medicine as their trade; they made and/or sold remedies or they performed medical services for payment.²⁵

The professionalisation that followed from the eleventh century guilds and the universities resulted in physicians protecting their craft through licences. Any university degree in medicine was automatically a licence to practice, other licensed practitioners could receive this qualification from the Church or royalty. Licencing medical practice meant that an informal hierarchy formed soon after the establishment of medicine as a university discipline. Siraisi describes this hierarchy as: ‘university graduates in medicine occupied the highest place, followed by other skilled medical practitioners, then by skilled surgeons, and finally by barber-surgeons and various other practitioners, among them herbalists or apothecaries.’²⁶

The wise women, cunning folk or herbalists used natural or magical remedies which were based on empirical evidence. This knowledge was transmitted orally and very little written evidence survives of these traditions.²⁷

Surgeons and barber-surgeons were specialised in minor surgical procedures like cauterisation and phlebotomy. Cauterisation was the application of heated metal to the skin to promote healing. Phlebotomy, or bloodletting, was the practice of opening up veins in various body parts to remove the cause of disease.²⁸

University-trained physicians based their medical practices on theoretical knowledge as taught to them at university. They sought to explain diseases with help from natural

25. Getz, *Medicine in the English Middle Ages*, 5.

26. Siraisi, *Medieval and Early Renaissance Medicine*, 18–19.

27. Siraisi, *Medieval and Early Renaissance Medicine*, 148–9; Jones, *Medieval Medical Miniatures*, 29.

28. Jones, *Medieval Medical Miniatures*, 119; Siraisi, *Medieval and Early Renaissance Medicine*, 137.

philosophy based on the writings of Aristotle, which formed the basis of university education.²⁹ A licensed physician had learnt the theory of medicine and because of this they became authorities on the causes of illness and the effects of treatments. Their reputation and place at the top of the hierarchy was emphasised by the notion that only they could properly perform medical procedures, including diagnosis, prognosis and prescription, and only they could practise medicine safely and correctly.³⁰

Aetiology

A university trained physician had studied the proper order of treating a patient, starting with diagnosis. Only through taking stock of the complaints from a patient could they devise a treatment plan. Diagnosis was immediately followed by prognosis, or a declaration of the patient's future prospects with regard to the disease. The prognosis says something about the course of the disease, about the best suitable remedy and the outcome of the illness. A good physician was able to give an accurate prognosis; it was more important to inform the patient and their family what was going to happen than actually healing the patient.³¹ The emphasis lay on accurate predictions rather than curing, because diagnosis was very difficult with the limited knowledge possessed by the physician and the often rudimentary healing skills of physicians were minimal at best. Prognosis was not infallible, but because a physician's reputation relied on accurately forecasting a patient's fate, physicians often explained the aberrant result away or blamed others if their prognosis turned out to be incorrect. Prognosis was mostly based on the experience and medical knowledge of a physician, but astrology played a large

29. Taavitsainen and Pahta, *Medical and Scientific Writing in Late Medieval English*, 44.

30. O'Boyle, 'Medicine, God, and Aristotle in the Early Universities.'

31. Jones, *Medieval Medical Miniatures*, 56.

role in it as well.³²

Astrology was a university discipline in the Late Middle Ages and was connected to all other disciplines. It also played a large role in medicine for multiple reasons. The movements of celestial bodies were thought to affect everything on earth, including medicinal plants which got their therapeutic effects through the beneficial influence of certain planets. The twelve zodiac signs were associated with certain body parts, which could only be treated when the corresponding planet or stars were in the correct position. Moreover, the position of the sun and moon would indicate which days were beneficial or disadvantageous for various medical procedures and treatments.³³

Diagnosis in Late Medieval England was a complex issue. Physicians did have names for the various illnesses that plagued the people, but not all clearly distinguished between symptoms and disease. A disease description often amounted to no more than a list of symptoms, making it nearly impossible for current-day scientists to determine the modern equivalent. Describing the symptoms of a patient was the main method of diagnosing, complemented with other methods like urinoscopy, haematoscopy—visual analysis of blood samples—and the taking of the pulse.³⁴

Late medieval physicians were trained specifically in the diagnosis and prognosis of illnesses and used Galen's humoral theory as a theoretical framework. Galen was a prolific writer in the second century BCE and published many works on medicine.³⁵ He incorporated many concepts from the Hippocratic texts in his own writings. None of his original works survived after the fall of the Roman empire, but his texts were avidly translated and commented on by Islamic scholars, which is how his theory became the

32. Siraisi, *Medieval and Early Renaissance Medicine*, 133–4.

33. Siraisi, *Medieval and Early Renaissance Medicine*, 149; Jones, *Medieval Medical Miniatures*, 69, 119.

34. Siraisi, *Medieval and Early Renaissance Medicine*, 123–30; Jones, *Medieval Medical Miniatures*, 58.

35. Getz, *Medicine in the English Middle Ages*, 37.

prevailing medical theory throughout the Middle Ages.³⁶

Galen's humoral or complexional theory centred around the harmony of the body with regard to the quaternities, i.e. the four qualities, complexions, humours, elements, seasons, and age groups (see figure 1). In a healthy person the four humours (blood, phlegm, yellow bile and black bile) should be balanced, if one of these four is deficient or abundant it may lead to disease. Similarly, all substances are made up from the four elements (fire, earth, air, water) which when consumed in the human body are transformed into the four corresponding humours; thus consuming too much of one element would result in a complexional or humoral imbalance and lead to disease. Formally trained physicians sought to preserve or restore the balance of the humours, which was a very complex process requiring the finetuning of a whole range of variables, including diet, position of the moon, or the weather. The complexional balance could also be influenced through cautery or phlebotomy, where the drawing of blood or heating of skin either meant forcing out the excess humours or redirecting it from a healthy body part towards the source of the illness where certain humours were deficient.³⁷

Galen's complexional theory was also used by physicians to create medicines. The administration of medicines was considered the main procedure for physicians. Any plant (and sometimes mineral or animal matter) with a sharp taste, powerful aroma, or unusual texture or shape could be perceived as having therapeutic properties.³⁸ Some materials were used as medicinal simples, meaning single substances with therapeutic properties that were not mixed into a compound medicine. Most medicines prescribed by physicians were compounded. A compound medicine was prepared by mixing together several medicinal simples—often with water, oil, lard, or wine as base—and

36. Jones, *Medieval Medical Miniatures*, 22–4.

37. Jones, 25, 119.

38. Siraisi, *Medieval and Early Renaissance Medicine*, 140–2.

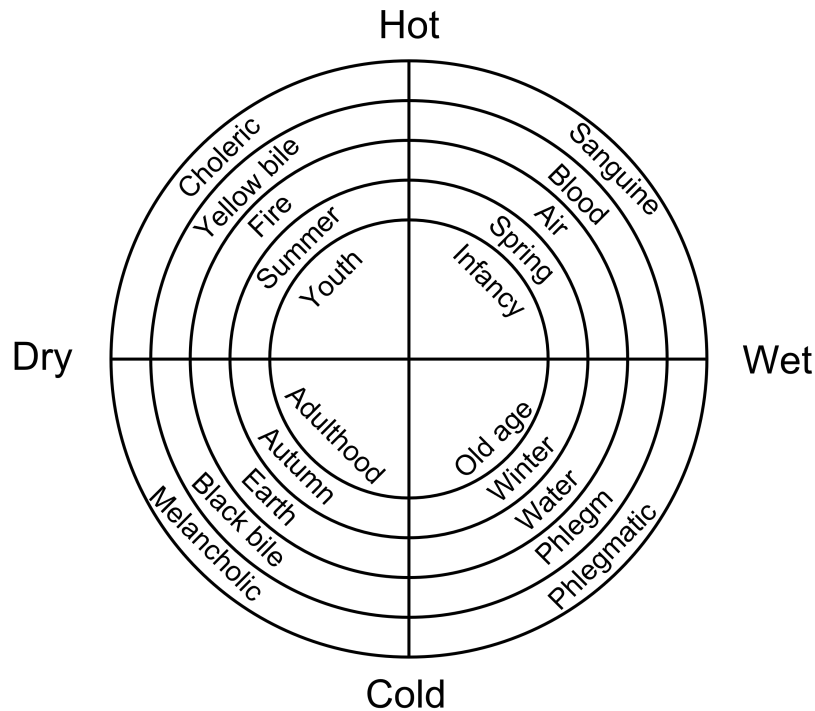


Figure 1: **Schematic representation of the relations** between the four elements, qualities, humours, ages, and seasons as used in medieval medical texts. (*Illustration made by author*).

sometimes subjected them to alchemical processes. Many of these compound medicines were very complicated and could only be made by a skilled physician or bought at a reputable apothecary. In larger medieval cities it was not unusual for physicians to rely on apothecaries for preparing medicines.³⁹

Medicines created by following Galen's complexional theory were based on the intrinsic qualities of each ingredient. For example, a hot disease could only be counteracted by a cold simple, or a cold and moist (phlegmatic) complaint could only be relieved by a hot and dry plant. Medicinal simples were described using the four qualities, combined with several degrees of strength ranging from one to four. Compound medicines especially relied on the properly calculated complexion of the whole, based on the various strengths and qualities of each component.⁴⁰ For example, rosemary was regarded as an equally hot

39. Jones, *Medieval Medical Miniatures*, 90–1; Siraisi, *Medieval and Early Renaissance Medicine*, 146.

40. Siraisi, *Medieval and Early Renaissance Medicine*, 145–6.

and dry plant,⁴¹ making it suitable to treat a cold and moist, i.e. phlegmatic, complaint. This theory was applied in practice; one of the remedies in the rosemary treatise states that rosemary in hot water or applied topically could relieve symptoms of gout (a form of inflammatory arthritis), here also referred to as phlegmatic blood.

Also if thou have a gowte or a flewmatyk blood in lemys, boyle the levys in water and as hoot as thou mayst put thi feete ther inne and lay thi herbis on thy knees and oon thi feet and lat thi feet sooke ther ynne ryght wel and that scal do the riht moche good to opyn thi poores of the and awyk thi bloode.

(1.45–48)

A recent review article shows that in the past two decades it has been proven that rosemary extract may relieve symptoms of inflammatory arthritis, either through scent therapy or massage with rosemary essential oil or a combination of applications.⁴²

Medical practitioners who were not formally trained at university barely made use of Galen's humoral theory. Surgeons and barber-surgeons were trained for performing cautery and phlebotomy and thus were taught the relevant parts of Galen's theories. Other medical practitioners who received their knowledge either through reading available medical or scientific texts or via oral transmission, made use of natural remedies following medicine from Anglo-Saxon England and early medieval England. For example, *Bald's Leechbook* contains some treatises on phlebotomy in book one and two, but the other books and the *Lacnunga* contain very few references to humoral theory; thus suggesting that native medicine was much less concerned with the humours and only those Latin texts that reached the British isles may have discussed the basics of humoral theory with

41. Dendle and Touwaide, *Health and Healing from the Medieval Garden*, chap.4.

42. Barão Paixão and Freire de Carvalho, 'Essential Oil Therapy in Rheumatic Diseases.'

regards to phlebotomy. In the late Middle Ages, as well as in early medieval England, humoral theory was specialised knowledge rather than common knowledge.⁴³

For physicians, humoral theory explained the cause of diseases well enough. Other medical practitioners used different explanations for various illnesses, especially for those illnesses that had no seemingly direct cause. While they understood how eating rotten food or raw meat could cause stomach problems or indigestion, other diseases were not as well understood. In Anglo-Saxon England they had the concept of a mobile disease, an invisible entity that travelled the land and caused illness for many people.⁴⁴ This notion was not discarded once humoral theory became the conventional explanation of diseases. For example, medical practitioners considered putrefied air the cause of epidemic illnesses that plagued many people at the same time in a small area, like a city or village. Only by moving or changing the air could these illnesses be cured, which often meant that rain or wind removed the source of pathogens from the area.⁴⁵ Additionally, people from each region in the British isles had their own theories for sudden diseases like infections, which were often related to folklore. In the areas with significant Scandinavian influences they spoke of elves, who shot arrows towards people to cause disease, citing the cause to be ‘elfshot’.⁴⁶

A different theory for sudden illnesses was the concept of venomous worms or snakes (worms, snakes, dragons, and other name variants), who would get into a body or bite

43. Ayoub, ‘Old English Wæta and the Medical Theory of the Humours.’

44. Künzel, ‘Ðu Miht Wiþ Ðam Laþan Ðe Geond Lond Færð.’

45. Siraisi, *Medieval and Early Renaissance Medicine*, 123.

46. The term elfshot was first coined in 1864 when Cockayne transliterated ‘ofscoten’ to elfshot, with which he meant ‘badly pained’. In the early twentieth century, Grattan and Singer explained ‘elfshot’ as a sudden disease with no visible cause that was the result of elves shooting their victims with arrows. This explanation has remained the convention for medievalists studying Old and Middle English scientific and medical texts. However, in several articles and books published in the past two decades, Hall states that ‘elfshot’ has been mistranslated and may have a very different meaning, thus refuting this explanation of sudden illnesses (Hall, ‘Calling the Shots’; Hall, ‘Getting Shot of Elves’). Whether elfshot was truly part of late medieval aetiology of illnesses is not the subject of this study, so we will leave this in the middle.

someone and spread venom, thereby causing the victim to fall ill. The anonymous prose treatise describes several remedies with rosemary to heal illnesses caused by worms. The first remedy, in line 9–13, describes worms as the cause for tooth ache and yellow or black colouration of teeth, which we now know as the effects of cariës caused by bacteria.

Also tak and pare of the tre, whiles it is grene, in to a lynnyn cloth and bynd it to thi teth and thar be any worme ther in it wol slee hym and it wyl make helthe to al the evelys in the teth and it wil make thi teth ryght clene, thow thai be ryght blake or elowe or what fowlness that ther be in the gomys and in the teeth. (l.9–13)

The remedy against these worms is to put green rosemary twigs bound in cloth between the teeth, perhaps to use it like a toothbrush and rub the rosemary against the affected areas. *In vitro* studies of rosemary essential oil and its effect on oral pathogens show that the rosemary extract possesses a low level of antimicrobial activity. While the extract is not as effective as modern day antibiotics, it may have functioned well enough for people to use rosemary twigs to prevent further tooth decay.⁴⁷

The second remedy mentioned in the rosemary treatise (line 17–21) states that a stomach ache caused by eating raw meat can be relieved by baking a bread made with honey, flour and powdered rosemary flowers and eating it.

Also tak the flour and temper it with hony and munge it with the powder of that herbe and bak it and ete it whan it is bakyn and that schal distroye any venym in thi body and thow thou have etyn any rawe mete do the same for

47. Bernardes et al., ‘Antibacterial Activity of the Essential Oil from *Rosmarinus Offi Cinalis* and Its Major Components against Oral Pathogens’; Philip et al., ‘Growth Inhibitory Effects of Antimicrobial Natural Products against Cariogenic and Health-Associated Oral Bacterial Species.’

it is verrey treacle but all way mak thi powder of the flowres of that herbe if
thou may be any way. (1.17—21)

In this remedy venom is described as the reason for falling ill after eating raw meat. Both honey and rosemary extract have shown antibacterial activity in various studies, but heating these ingredients is not recommended because the heat decreases the antibacterial activity. However, the bread made with these ingredients may provide enough to counteract the toxins released by the bacteria.⁴⁸

Another remedy describes the insect repellent function of rosemary, stating that putting rosemary on the threshold of doors will prevent venomous worms from entering the home.

Also lay that herbe on the trosschefold of the dore or in the dore and ther
schal no venemos worme entre ther in with in the dore tyl it be removed fro
the place. (1.26—28)

It is probable that the rosemary plant repels insects who otherwise would lay eggs on foodstuffs and thus prevents foodborne illnesses.

The last remedy makes use of antispasmodic properties of rosemary smoke as well as relief of throat congestion common in colds.

Also if ther be any adder in mannys body mak a smoke ther of and hold thi
mouthe ther over and also son as he feleth the smoke sche wil comme owte
with owtyn faile. (1.55—57)

In this remedy an adder, i.e. a venomous snake, is probably the cause of some throat or lung infection. While the symptoms are not mentioned in this remedy, based on the

48. Al-Waili et al., 'Honey and Microbial Infections'; Nieto, Ros, and Castillo, 'Antioxidant and Antimicrobial Properties of Rosemary'; Veenstra and Johnson, 'Rosemary (*Salvia Rosmarinus*).'

type of treatment it becomes clear that it must be something affecting the lungs. Rosemary extract has been proven to have antispasmodic properties, as well as antimicrobial activity. Smoke from burning rosemary likely still contains chemicals also found in rosemary extract, accounting for its suitability to treat pulmonary infections.⁴⁹

Remedies and their validity

The different types of medical practitioners each used different reference books. Formally trained physicians based their knowledge on the writings used in the universities. These mostly contained medical theory, philosophy and astrology and were mainly translations or adaptations of existing Latin works. Surgeons had much more to gain from the surgical manuals that focused on humoral theory as applied to surgical procedures. Apothecaries worked with reference books that described the medicinal powers of various plant, animal or mineral materials, and the preparation of specific remedies.

Herbal remedies were often written down in recipe collections, which could vary greatly in style. Unlike specific recipe collections, herbals contained descriptions and applications of various therapeutic materials. These two types of texts appear to be very similar, but the largest difference lies in the organisation of the information. Recipe collections were often ordered by complaint and then followed by all the remedies that could be applied, whereas herbals focused on the medicinal simple, followed by a listing of all uses of that particular substance.⁵⁰

Medicine was not only practised at a professional level, often the women in wealthier households played the role of healer. Separate manuals were produced for them in the vernacular, which contained far less theory than texts for professional healers. For

49. Abers et al., ‘Antimicrobial Activity of the Volatile Substances from Essential Oils’; Chun et al., ‘The Ethanopharmacological Aspect of Carbon Nanodots in Turmeric Smoke.’

50. Stannard, ‘Medieval Herbalism and Post-Medieval Folk Medicine.’

example, popular texts explaining the virtues of common plants were circulated much more widely than texts on their exact numerical qualities. Only a basic understanding of humoral theory was required, mainly for the administration of medicines. The rest of the information remained in the domain of the doctor, surgeon, or apothecary. Similar compilations of vernacular treatises were also made for not formally trained medical practitioners, which were sometimes called leechbooks. These were often expanded to include additional herbal remedies, the basics of humoral theory and standard surgical procedures such as phlebotomy or diagnostic methods such as urinoscopy.⁵¹

Medical recipes can be found in all manner of texts, these are not restricted to herbals or recipe collections specifically. A recipe nearly always consists of four parts, which are purpose, ingredients, preparation and administration.⁵² Additionally, at the end of a recipe one can often find so-called efficacy phrases, which denote the believed effectiveness of a medical recipe. The remedy described in line 52–55 is a good example of this recipe structure.

Also if thou have lost thi wyt that thou be frantyk (*purpose*), gader a gret hep of that levys and of the flours (*ingredients*) and stamp hem and put ther to the juys of fenkel and than wrynge it owte togeder (*preparation*) and use that to drynk (administration) and it wyl make hym hool (*efficacy phrase*).

(1.52–55)

There are two subtypes of efficacy phrases, the stock phrases and specific phrases. Stock phrases can be found at the end of any recipe but are not related to the specific content of the preceding recipe, such as “and he schal be hoole” (1.63). Specific phrases are limited in application to a small selection of recipes that all describe the same symptoms

51. Rawcliffe, *Medicine & Society in Later Medieval England*, 54–60.

52. Taavitsainen and Pahta, *Medical and Scientific Writing in Late Medieval English*, 159–61.

or cure. A good example of such a specific phrase is “it wyl make helthe to al the evelys in the teth and it wil make thi teth ryght clene” (l.11-12).⁵³ The existence of these efficacy phrases and how often they appear in recipe collections shows us that people truly believed that these remedies worked.

Medieval medicine, from both the early Middle Ages and the late Middle ages, has long been dismissed as filled with magic and superstition. However, magic has played a major part in medicine in all, if not most ancient cultures and is not specific to medieval England. Magic—in the form of deities, miracles, or other powers—was frequently used to explain the inexplicable, so it is not strange that magical cures were employed for all afflictions that could not be cured with medicinal herbs or beneficial surgeries. Sympathetic magic was often used in medicine, which was based on the notion that morphological or symbolic similarities between two unrelated items was a sign that they could influence each other.⁵⁴ For example, it was thought that the leaves of red cabbage was suitable for dressing open wounds, because the red colour of the leaves corresponded to colour of blood and as such was determined to be useful for open wounds.⁵⁵ In a similar manner, rosemary was used as a symbol for eternity and immortality because it is an evergreen perennial plant. One of the applications in the anonymous prose treatise states that if one takes a branch from a growing rosemary shrub and it wilts away and cannot be revived, then the person who plucked the branch will die within the year (line 65—66).

Rosemary has many symbolic meanings and uses. One originates in ancient Egypt, Greece and the Roman Empire, where rosemary was associated with love and death. The plant’s strong fragrance was thought to ward off evil spirits and was often used at monumental occasions, such as births, weddings, and funerals. The strong scent was also

53. Jones, ‘Formula and Formulation.’

54. Cameron, ‘Anglo-Saxon Medicine and Magic.’

55. Stannard, ‘Medieval Herbalism and Post-Medieval Folk Medicine.’

thought to help preserve the body, so cuttings were often added to caskets. In addition, rosemary was often used in bridal bouquets, symbolising fidelity and fertility.⁵⁶ Another is Shakespeare's well-known quote 'there's rosemary, that's for remembrance' spoken by Ophelia (Hamlet, Act IV Scene 5) which shows that this symbol was commonly used in English society by the time Shakespeare wrote this play.⁵⁷ Finally, there are some older sources from the beginning of the twentieth century that describe the connection between rosemary and the Virgin Mary. Generally, many beautiful and fragrant plants or those with therapeutic properties were associated with the Virgin Mary because they represent her characteristics, such as purity, chastity and motherhood.⁵⁸ One source from 1911 suggests that rosemary was also associated with Mary because of the legend that she may have hidden herself and her child from Herod's soldiers in rosemary bushes. However, this is also ascribed to other trees like juniper.⁵⁹

Cameron argued in his study that herbal medicine as practised in the ninth and tenth centuries was more clinically effective than previously thought. Brennessel and colleagues attempted to provide empirical support to this argument by testing the antimicrobial activity of various medical recipes and by showing that medieval recipes were based on a significant amount of trial and error by medieval physicians. The sheer amount of guesswork necessary to determine what the recipe may have been already shows that it is nearly impossible to faithfully reproduce medieval medicines and it is not surprising that the efficacy of these remedies could not be proven. We should also keep in mind that most medicine was relatively ineffective until the discovery of antibiotics and vaccines. Nevertheless, the existence of these recipes and the fact that they were replicated on

56. Zimmermann, 'Der Rosmarin Als Heilpflanze Und Wunderdroge.'

57. Shakespeare, *Hamlet*.

58. Roberson and Stokes Jr., *Herbs and Flowers of the Virgin Mary*.

59. Skinner, *Myths and Legends of Flowers, Trees, Fruits, and Plants*.

a relatively large scale indicates that medieval practitioners and their patients at least believed in the efficacy of these remedies, so the resulting placebo effect should not be discounted.⁶⁰ Medieval medicine can mainly be assessed on the theoretical value of the ingredients. Known therapeutic properties proven in the last half century may indicate that a recipe was effective to some degree.

Medieval physicians and herbalists lacked the language and knowledge to describe the exact effects of the various chemical constituents of rosemary. Only in the past five decades has it been possible using modern chemical analysis methods to determine the various components in the plant and test them in isolated settings. Rosemary products generally include essential oils from distillation, tinctures from aqueous alcohol extraction, and crushed leaves as a culinary herb. Each product contains various phytochemicals (biologically active compounds) and each has a variety of applications.⁶¹ The popularity of rosemary as a culinary herb is not only due to its fragrance and aromatic taste when used in preparation of various meals. Rosemary extracts have been found effective in its antimicrobial activity. The chemicals found in rosemary extract inhibit both bacterial and mould growth on or in food products, which accounts for its suitability and age old use as food preservative.⁶² In the anonymous prose treatise rosemary is said to preserve liquids in wine or ale casks and prevent the liquid from going sour (line 28—31). Its antimicrobial activity can also be used for skin problems, especially bacterial or fungal infections.⁶³

Also tak the levys and boyle hem in whit wyn and ther with wassch thi face

and thi berd and thi browes and it wille ilden aeyn heyre thow it be aperty

60. Brennessel, Drout, and Gravel, 'A Reassessment of the Efficacy of Anglo-Saxon Medicine.'

61. Hanson, 'Rosemary, the Beneficial Chemistry of a Garden Herb.'

62. Veenstra and Johnson, 'Rosemary (*Salvia Rosmarinus*).'

63. de Macedo et al., 'Rosemary and Its Topical Applications.'

thyn heryd. (1.6–8)

The remedy above mentions that one should boil rosemary leaves in white wine and wash the face, head and beard with the mixture and their hair will grow back. The loss of hair was possibly caused by a skin infection and the creation of a tincture by boiling rosemary in alcoholic wine could be used to cure the infection. Another remedy describes applying ground up rosemary on ulcers or sores (called cancers) to treat the bacterial infection causing such open wounds (line 23–24).

When ingested, rosemary extracts can relieve a person from stomach or intestinal pain due to its antioxidant and anti-inflammatory properties. The rosemary treatise mentions several remedies against sore stomachs, acid reflux and loss of appetite. One of the remedies combines rosemary extract from boiling the leaves and flowers in water with pomegranate juice against acid reflux, which is one of the two recipes that require another ingredient besides rosemary.⁶⁴

Also if thou have an hoot stomak that brenneth and channgeth thy colour
for that hot it is a gret payne; than gader the flours and the levys and boylle
hem in welle water and than clense it and put ther to wyn and the juys of
powndgarnet and drynk for that heleth. (1.57–60)

Partially reflected by rosemary's use as a symbol for memory, the aroma of rosemary essential oils has been proven to stimulate the mind, improve the mood, and to be beneficial for performing cognitive tasks.⁶⁵

64. Nieto, Ros, and Castillo, 'Antioxidant and Antimicrobial Properties of Rosemary'; de Oliveira, Camargo, and de Oliveira, 'Rosemary as Therapeutic and Prophylactic Agent'; Johanningsmeier and Harris, 'Pomegranate as a Functional Food and Nutraceutical Source.'

65. Moss et al., 'Aromas of Rosemary and Lavender Essential Oils Differentially Affect Cognition and Mood in Healthy Adults.'

Also mak powder of the floures and bere it in a faire clothe and bere it in thi
riht hande and it wil joye the gretly and mak the glad cheryd. (1.8—9)

Here, the remedy describes powdering the flowers, wrapping that in a fine (or beautiful) cloth and carrying it in the right hand, which should improve someone’s mood. Whether the aesthetics of the cloth or the hand in which one would carry the powdered smells truly makes a difference for this remedy, there is little doubt that the aroma of rosemary flowers was not beneficial to one’s general mood.

Rosemary does not only have health benefits, it can also function as a herbicide and pesticide. Some of the phytochemicals have been shown to negatively affect germination and root growth and could be used to inhibit the growth of unwanted plants. Other phytochemicals that can also be found in rosemary extract are successful in repelling parasites and selectively killing specific pests.⁶⁶ As it says in line 63—65: “also if thou lay that erbe amonge clothes or selk or wolle or bokes or what it be, thar schall no motthe come ther inne,” which is a simple instruction of protecting one’s textiles and papers from the destructive forces of moths.

Manuscript

Cambridge, Trinity College Library, MS. O.1.13 [1037]

Due to travel constraints it was not possible to investigate this manuscript in person; however, Trinity College, Cambridge, has made a digitised version available online which is freely accessible. The college has also published online catalogue records of the digitised manuscripts. In 1900, medievalist M.R. James wrote four volumes describing the collection of Western manuscripts in the library of Trinity College, Cambridge; volume three gives a

66. Romagni, Allen, and Dayan, ‘Allelopathic Effects of Volatile Cineoles on Two Weedy Plant Species’; Hanson, ‘Rosemary, the Beneficial Chemistry of a Garden Herb.’

short description of this composite manuscript, including a content list devised by James himself.⁶⁷ The online catalogue record, James' description and manual investigation of the digitised manuscript form the basis of this section.⁶⁸

The manuscript is a composite manuscript, comprising 302 paper leaves with post-medieval foliation. It consists of eight parts. The pages are approximately 2115 cm, the written space varies. The anonymous prose treatise that is discussed in this paper is found in part one of the composite manuscript, therefore only this part shall be further described. Part one incorporates folios 1 to 82. This section is a miscellany of writings on the use of herbs, bloodletting and other medical recipes in English and Latin. It starts with the text 'on the virtues of herbs', a twenty-page text that describes several common herbs and their uses, including the treatise 'The vertu of Rose maye'. Folios 15 to 19 have been torn out, based on the foliation in the upper right corners of each leaf; this happened after creating the composite manuscript. Folios 36v, 37r, 44v, 45r, and 77r have been left blank. On folio 82v the scribe marks the end of their writing by several x-like shapes under the last line of the text. This leaf also features comments in a different hand.

The text is written in a current Anglicana hand, with a Secretary single-compartment 'a' and wide line spacing typical of the Secretary script. Part one is probably written in the second half of the fifteenth century. The scribe used a combination of strikethrough and overwriting for their corrections. The collector probably added the marginal notations as well as folio numbers—ink, hand and pen are different from the text—these are mentioned in the notes when applicable.

The seventeenth century collectors who are responsible for the survival of many medieval manuscripts—Sloane, Ashmole, Wellcome—were particularly interested in

67. James, *The James Catalogue of Western Manuscripts*.

68. *O.1.13 - James Catalogue*; 'O.1.13 - Medical Texts?'

collecting scientific and medical texts. The most popular Middle English medical treatise has been recorded as ‘here men may see the virtues of herbs’, which survives in more than forty copies. The content of this treatise, discussing the uses of some thirty common herbs, was derived from Macer’s herbal, but it is not a direct translation of his *De Virtutibus Herbarum*. Another very popular herbal was the *Agnus Castus*, surviving in ca. thirty copies. Three other anonymous treatises that survive in about fifteen copies each are *The Virtues of Rosemary*, *The Virtues of Betony*, and the *Liber Uricrisiarum*. The first two of these are often found on their own or added onto ‘here men may see the virtues of herbs’.⁶⁹

Roger Gale, the antiquarian who donated his collection of manuscripts to Trinity College Cambridge was also an avid collector of scientific and medical texts. It is likely that he found separate booklets with loosely overlapping topics and decided to bind them together in a larger codex for better preservation. This theory would explain why the codex in which ‘the virtues of rosemary’ was found contained several miscellanies on many different scientific and medical topics in different hands. Moreover, two different versions of ‘the virtues of rosemary’ exist in this codex—the edition published in this thesis is the first, the second can be found on folios 148—150—as well as Henry Daniel’s treatise on rosemary which can be found in the first part.

Dialect

No external evidence was available to localise this manuscript. Using the eLALME online fitting tool of linguistic profile (LP) items as found in the manuscript the treatise can be localised to two linguistic profiles. The two best matching language profiles are in Norfolk (LP 150) and Yorkshire, North Riding (LP 1115), with Norfolk taking preference with

69. Voigts and Schleissner, ‘Multitudes of Middle English Medical Manuscripts.’

fifteen matches. The surrounding LPs of the area Norfolk show many more matches, but are not scored as high according to eLALME's algorithm. Examples of LPs with a lower score but a larger number of matches are LP 776 and LP 4057 which are localised on the map to King's Lynn, Norfolk. Other LPs with a high number of matches are localised to Ely and Suffolk; thus suggesting that this manuscript is written in an East Midlands dialect.

Editorial principles

Any editorial corrections and scribal corrections have been applied to the text and explained in footnotes. All line endings and page endings have been modernised, with the original page numbers indicated in the text, e.g. [12V]. Whenever necessary, line endings have been indicated with a vertical stroke (|). Similarly, word spacing, capitalisation and punctuation has been modernised to improve legibility. The yogh (ȝ, [y, g, or silent]) has been retained, while the thorn (þ) has been changed to 'th' and italicised. Any abbreviations, suspensions, and tittles have been expanded and italicised. Where necessary the 'u' and 'v' have been modernised to improve legibility and the i-longa has been modernised into a 'j'. Commonly used abbreviations are Middle English Dictionary (MED) and Oxford English Dictionary (OED).

Conclusion

For this thesis I created a semi-diplomatic edition of the anonymous prose treatise on rosemary 'the virtues of rosemary' in MS.O.1.13, Cambridge Trinity College. A surprisingly large number of versions exist of this particular treatise, suggesting that it was an important source of information in late medieval England. However, despite its apparent popularity this treatise has not been formally edited and published before. To

fully place this treatise in its historical context I have discussed the historical development of medicine from ancient Greece to Anglo-Saxon England, specifically highlighting the importance of Greek natural philosophy as source for medieval medical theory. Moreover, in describing how one became a university-taught physician or other medical practitioner and connecting their practices to the available sources of medical knowledge I have illustrated that success in the healing arts did not necessarily depend on one's education. The oftentimes crude methods and limited knowledge available were responsible for the current-day reputation of medieval medicine as ignorant and ineffective. However, the comparison of late medieval remedies with rosemary with potential therapeutic properties found with modern empirical biochemistry shows that these natural remedies are not as ignorant and ineffective as previously assumed. However, it is nearly impossible to prove this with empirical research due to the written nature of these recipes—with vague and inconsistent naming conventions (if any) and no specific measurements or detailed descriptions of preparation and administration. Modern day synthetic drugs likely are far more effective than these folk remedies ever could be, but with the knowledge and skills available to the people several centuries ago these were probably as effective as medicine could get. During the past two decades researchers have already taken some inspiration from folklore and natural medicine for the development of new drugs or other applications; perhaps this edition and thesis can offer some new insights on the usefulness of natural medicine as our ancestors believed before us.

Edition

[12V] The vertu of Rosemarye⁷⁰

The⁷¹ vertu of Rosemarye, *the* whiche hath wondirful vertues. Take *the* floures and wynd hem in a lynyn clothe and *than* boylle it in a pot *with* water tyl half be boyled away and *than* drynk *that* water and it is medecy|nable for all *the* evelys in a mannys
 5 body. Also tak *the* levys and boyle hem in whit wyn and *ther* *with* wassch *thi* face *and* *thi* berd and *thi* browes and it wille zilden azeyn heyre thow it be aperty thyn heryd.⁷² Also mak powder of *the* floures *and* bere it in a faire clothe and bere it in *thi* right hande and it wil joye *the* gretly *and* mak *the* glad cheryd.⁷³ Also tak⁷⁴ *and* pare^o of the tre[†], whiles it is grene, in to a lynnyn cloth and bynd it to *thi* ^otrim
 10 *teth* and *thar* be any worme *ther* in it wol slee^o hym and it wyl make [13R]helthe [†]shrub ^odestroy
 to al *the* evelys in *the* *teth* and it wil make *thi* *teth* ryght clene, thow *thai* be ryght
 blake or zelowe or what fowlness *that* *ther* be in the gomys^o *and* in *the* teeth. Also ^ogums
 mak powder of *the* rynde^o of *that* and put it in *thi* nosetherles⁷⁵ and *thou* schalt ^obark
 be delyverede of *the* pose^o *that* is clepyd[†] *the* snek^{*} and of all foule fylthes in *the* ^ohead cold
 15 hede. Also *the* rote^o yboylede in vynegre[†] and wassche *thi* feet *ther* *with*; it wil be [†]call
 a stronge helth to *the*. Also tak *the* flour and temper^o it with hony and minge it ^{*}head cold
with *the* powder of *that* herbe *and* bak it *and* ete it whan it is bakyn^o and *that* schal ^oroot
 distroye any venym in *thi* body and *thowz* *thou* have etyn any rawe mete do *the* [†]vinegar
^ocombine
^oheated

70. Rosemarye] MS Rose maye

71. Marginal note by collector in left margin, 'rosemary'.

72. 'zelden azeyn heyre thow it be aperty thyn heryd' has been interpreted as 'yield again hair though it be clearly thin haired'.

73. 'glad cheryd' is a compound verb which means cheerful or pleasant in appearance or manner (MED).

74. tak]MS tak | tak

75. noseterles]MS nosether-|les

same for it is verrey treacle⁷⁶ but all way^o mak *thi* powder of *the* flowres of *that* ^oalways
 20 herbe if *thou* may be any way. Also lay *the* levys be^o *the* in *thi* bed and *thou* schalt ^oby
 dremyn no wykked swevenys^o. Also mak *the* a bath *ther* of and stewe[†] the *ther* ^odream
 in and it wil mak the yonglych^o *and* comfort all thy membrys for sothe[†]. Also if ^oyoung
thou haue a canker^o, stamp *that* herbe *and* lay *ther* to and it will slee hym. Also [†]truth
 make a spone of *that* tre^o and use to ete *ther* *with* and it is wondyr medycynable ^oulcer
 25 for many dyvers evelys. [13V]Also lay *that* herbe on *the* trosschefold^o of *the* dore or ^otreshold
 in *the* dore and *ther* schal no venemos worme entre *ther* in *with* in *the* dore tyl it be
 removed fro *the* place. Also 3ef levys ben stomped and ylayd in wyn or ale vessel,
 tonne or barell or what vessel *that* it be, *that* lycour schal not turne to sownesse^o ^osourness
 ne no wykked sovour^o but kep it in *the* selve[†] savour *that* it was *and* whille⁷⁷ it ^otaste
 30 lasteth wil be. Also a good pref^o *ther* of, stampe *that* herbe *and* put it in a vessel, [†]same
 barrell or pot or botel wyth wyn or ale and put *ther* in a tode^o or a evete[†] or coppe^{*} ^otoad
 in to *the* vessel, and stoppe all togyder ry3ht faste and *with* owte dowte the vessel [†]newt
 schal al tobrest^o. Also 3if *the* stoke[†] be so grete *that* 3e may mak a vessel *ther* of, ^oburst open
 be any way make *ther* of a vessel, botel or costard⁷⁸ and kepe wyn *ther* in and eche [†]tree trunk
 35 day drynk *ther* of *and* it schal save *the* from apostom⁷⁹ *that* *thou* schalt not noon^o ^oat all
 brede^o; and *thow3* *thou* have *the* posteme *thou* schalt delyver hym through *that* ^ospread

76. treacle]MS ~~tre~~w treacle

Theriac was a wonder drug with the highest reputation, which in the Middle Ages was regarded as a panacea. It was reputed to be a cure for nearly all potential sicknesses a person could suffer from. It was often referred to as treacle in various late Middle English sources. Theriac was a compound medicine made up from many different ingredients and required a very long time to prepare (Rawcliffe, *Medicine & Society in Later Medieval England*, 152). Here, ‘verrey treacle’, presumably means that rosemary in this remedy is as powerful as treacle, i.e. very good for one’s health and a cure for many afflictions.

77. whille]MS w < h

78. ‘costard’ is likely an unrecorded form of ‘costrel’, which is a small vessel for storing or carrying wine, water, or ale (MED).

79. An apostom was used to describe any morbid swelling or inflammation in any part of the body, external or internal (MED). Also written in this MS as posteme.

drynk and it wil kepe⁸⁰ *the* sodeyn^o sekenesse and *thou* use *that* drynke. Also ^osudden
 if *thou* haf lost apetyt to mete, tak *and* boyle *the* levys of *that* herbe in water of a
 sprynge welle and a lytel wyn *ther* to *and* drynk *that*; or ell^o tempere flour⁸¹ and ^ootherwise
 40 *that* water togedyr and bak it to bred and of *that* bred mak soppes⁸² and ete hem
 and it wil make *the* good apetit and good stomak and it be usyd^o. Also tak stronge ^oconsume
 venegyr and boyle *the* levys til *thai* be tendyr and lay al hoot^o to *the* stomak and ^ohot
 it wil doon away *the* evyl *ther* in so it be layl⁸³ in [14R]plaistre^o wyse[†] in a lynnyn ^opoultice
 cloth. Also gif *thou* have a gowte^o or a flewmatyk blood in lemys[†], boyle *the* levys ^ogout
 45 in water and as hoot as *thou* mayst put *thi* feete ther inne *and* lay *thi* herbis on⁸⁴ [†]limb
 thy knees and oon *thi* feet and lat *thi* feet sooke ther ynne ryght wel *and that* scal
 do *the* riht moche good to opyn *thi* poores of *the* and awyk^o *thi* bloode. Also if ^oawaken
thou have hade a gret swete throw travayle^o and *thou* have taken a gret colde, *ther* ^ohard work
 after is a gret confusoun^o to a man *and* a stronge agordyn⁸⁵ to the vaynes and ^odestruction
 50 senewys; tak *and* boyle *the* leuys in water and *with that* water anoynte *the* ofte and
thou schalt be delyvered of *that* payne. Also if *thou* have lost *thi* wyt^o *that thou* ^omind
 be frantyk, gader a gret hep of *that* levys *and* of *the* flours and stamp hem *and* put
ther to *the* juys of fenkel^o and *than* wrynge it owte togeder and use *that* to drynk ^ofennel
 and it wyl make hym hool. Also if ther be any adder^o in mannys body mak a smoke ^oworm
 55 *ther* of and hold *thi* mouthe *ther* over and also son as he feleth *the* smoke sche wil

80. The verb 'kepen' can be used in many different constructs and has different meanings depending on the construct. Here it probably means to hold the sickness in check, to keep it from worsening (MED).

81. Presumably, 'flour' here refers to ground flour from wheat so one can make bread from flour and water boiled with rosemary, and not to the flowers of the rosemary plant.

82. From ME 'soppe'; a piece of bread dipped or soaked in wine, water, milk, or other liquid. Also, a dish containing pieces of bread on which a broth or syrup is poured (MED).

83. Possibly a contraction of 'lay al', see line 45 'lay al hoot' or some form of 'laid'.

84. on]MS ~~om~~ on

85. This word as the a- prefix for making a verb into a predicative adjective with progressive aspect. The stem of the verb may be 'girden', meaning 'to strike' (MED). Here it is interpreted as 'a sudden great pain'.

comme owte with owtyn faile. Also if *thou* have an hoot stomak *that brenneth*[°] and [°]burn
channgeth thy colour for that hot it is a gret payne; than gader *the flours* and *the*
levys and boylle hem in welle water and *than* clense it *and* put ther to wyn and
the juys of powndgarnet[°] and drynk [14V]for *that heleth.* Also if *thou* be firstlawe[†] [°]pomegranate
60 *throwze hete or fyer or ayr or maladye so that it be an unkynd thirst,* tak *that herbe* [†]thirsty
and brenne it *and* mak colys *ther* of and on *thoo*[°] colys toost *thi* bred *and* ete *that* [°]those
bred in soppys in whit lycour *thu*[°] wilt *and* he schal be hoole. Also if *thou* lay *that* [°]thou
erbe amonge clothes or selk[°] or wolle or bokes or what it be, *thar* schall no motthe [°]silk
come *ther* inne. Also tak *and* pulle a brannch of *that* stokes as he groweth and if
65 *thou* schalt be dede *that* 3er *that* stok wil welken[°] away and dye for ever more. Also [°]wilt
it is good to lay in *the* cuppe *with* ale, and it is wonder holsome for many thynges
for sothe. Also if *thou* have any evyl in *the* nether ende man or womman in any
degre, tak *and* make *the* brannchis of *that* erbe drye and *than* make hoot tyle stones
and brenne *the* brannches *ther* on and *than* cover *ther* over and stewe *the* *ther* over
70 or ellys in a chyer[°] *with* a sege[†] *ther* on and wrappe it wel *with* clothes abowte, *that* [°]chair
ther goo no breth away but evyn up and *that* schal do the moche good. [†]chamber pot

References

- Abers, M., S. Schroeder, L. Goelz, A. Sulser, T. St. Rose, K. Puchalski, and J. Langland. ‘Antimicrobial Activity of the Volatile Substances from Essential Oils.’ *BMC Complementary Medicine and Therapies* 21 (April 2021): 124. ISSN: 2662-7671. <https://doi.org/10.1186/s12906-021-03285-3>.
- Ali, R.U. ‘Medieval Europe: The Myth of Dark Ages and the Impact of Islam.’ *Islamic Studies* 51, no. 2 (2012): 155–168.
- Ayoub, L. ‘Old English Wæta and the Medical Theory of the Humours.’ *The Journal of English and Germanic Philology* 94, no. 3 (1995): 332–346. ISSN: 0363-6941.
- Barão Paixão, V.L., and J. Freire de Carvalho. ‘Essential Oil Therapy in Rheumatic Diseases: A Systematic Review.’ *Complementary Therapies in Clinical Practice* 43 (May 2021): 101391. ISSN: 1744-3881. <https://doi.org/10.1016/j.ctcp.2021.101391>.
- Bernardes, W.A., R. Lucarini, M.G. Tozatti, L.G. Bocalon Flauzino, M.G.M. Souza, I.C.C. Turatti, M. L. Andrade e Silva, C.H.G. Martins, A.A. da Silva Filho, and W.R. Cunha. ‘Antibacterial Activity of the Essential Oil from *Rosmarinus Officinalis* and Its Major Components against Oral Pathogens.’ *Zeitschrift für Naturforschung C* 65, nos. 9-10 (October 2010): 588–593. ISSN: 1865-7125. <https://doi.org/10.1515/znc-2010-9-1009>.
- Brandt-Rauf, P. W., and S. I. Brandt-Rauf. ‘History of Occupational Medicine: Relevance of Imhotep and the Edwin Smith Papyrus.’ *British Journal of Industrial Medicine* 44, no. 1 (1987): 68–70. ISSN: 0007-1072.
- Brennessel, B, M.D.C Drout, and R Gravel. ‘A Reassessment of the Efficacy of Anglo-Saxon Medicine.’ *Anglo-Saxon England* 34 (2005): 183–195. <https://www.jstor.org/stable/44512361>.
- Cameron, M.L. ‘Anglo-Saxon Medicine and Magic.’ *Anglo-Saxon England* 17 (1988): 191–215. ISSN: 0263-6751.
- Chun, S., M. Muthu, E. Gansukh, P. Thalappil, and J. Gopal. ‘The Ethanopharmacological Aspect of Carbon Nanodots in Turmeric Smoke.’ *Scientific Reports* 6 (November 2016): 35586. ISSN: 2045-2322. <https://doi.org/10.1038/srep35586>.
- de Macedo, L. Malvezzi, E. Mendes dos Santos, L. Militão, L. Lacalendola Tundisi, J. Artem Ataide, E. Barbosa Souto, and P. Gava Mazzola. ‘Rosemary (*Rosmarinus Officinalis* L., Syn *Salvia Rosmarinus* Spenn.) and Its Topical Applications: A Review.’ *Plants* 9, no. 5 (May 2020): 651. ISSN: 2223-7747. <https://doi.org/10.3390/plants9050651>.
- de Oliveira, J.R., S.E. Afonso Camargo, and L. Dias de Oliveira. ‘*Rosmarinus Officinalis* L. (Rosemary) as Therapeutic and Prophylactic Agent.’ *Journal of Biomedical Science* 26 (January 2019): 5. ISSN: 1021-7770. <https://doi.org/10.1186/s12929-019-0499-8>.
- Dendle, P., and A. Touwaide, eds. *Health and Healing from the Medieval Garden*. 0 edition. Woodbridge: Boydell Press, March 2008. ISBN: 978-1-84383-363-5.

- Drew, B., J. González-Gallegos, C. Xiang, R. Kriebel, C. Drummond, J. Walker, and K. Sytsma. 'Salvia United: The Greatest Good for the Greatest Number.' *Taxon* 66 (February 2017): 133–145. <https://doi.org/10.12705/661.7>.
- Edwards, A.S.G, ed. *IMEP - Index of Middle English Prose*. Index of Middle English Prose. 1984.
- Getz, F. *Medicine in the English Middle Ages*. Princeton University Press, November 1998. ISBN: 978-1-4008-2267-6. <https://doi.org/10.1515/9781400822676>.
- Grant, E. *The Foundations of Modern Science in the Middle Ages: Their Religious, Institutional and Intellectual Contexts*. First. Cambridge University Press, October 1996. ISBN: 978-0-521-56137-2 978-0-521-56762-6 978-0-511-81790-8. <https://doi.org/10.1017/CBO9780511817908>.
- Hall, A. 'Calling the Shots: The Old English Remedy 'Gif Hors Ofscoten Sie" and Anglo-Saxon 'Elf-shot'.' *Neuphilologische Mitteilungen* 106, no. 2 (2005): 195–209. ISSN: 0028-3754.
- . 'Getting Shot of Elves: Healing, Witchcraft and Fairies in the Scottish Witchcraft Trials.' *Folklore* 116, no. 1 (2005): 19–36. ISSN: 0015-587X.
- Hanson, J.R. 'Rosemary, the Beneficial Chemistry of a Garden Herb.' *Science Progress (1933-)* 99, no. 1 (2016): 83–91. ISSN: 0036-8504.
- James, M.R. *The Western Manuscripts in the Library of Trinity College, Cambridge: A Descriptive Catalogue*. Vol. 3. Cambridge University Press, 1902.
- Johanningsmeier, S.D., and G.K. Harris. 'Pomegranate as a Functional Food and Nutraceutical Source.' *Annual Review of Food Science and Technology*, no. 2 (2011): 181–201. <https://doi.org/10.1146/annurev-food-030810-153709>.
- Jones, C. 'Formula and Formulation: 'Efficacy Phrases' in Medieval English Medical Manuscripts.' *Neuphilologische Mitteilungen* 99, no. 2 (1998): 199–209. ISSN: 0028-3754.
- Jones, P.M. *Medieval Medical Miniatures*. London : British Library in association with the Wellcome Institute for the History of Medicine, 1984. ISBN: 978-0-7123-0045-2 978-0-7123-0021-6.
- Keiser, G.R. *A Manual of the Writings in Middle English 1050-1500: Works of Science and Information*. Edited by A.E. Hartung. Vol. 10. Connecticut Academy of Arts & Sciences, 1998. ISBN: 978-99976-630-4-7.
- . 'Rosemary: Not Just for Remembrance.' In *Health and Healing from the Medieval Garden*, edited by P. Dendle and A. Touwaide. Boydell & Brewer Ltd, 2015. ISBN: 978-1-84383-976-7.
- Künzel, S. 'Þu Miht Wiþ Pam Laþan Ðe Geond Lond Færð: Conceptualisations of Disease in Anglo-Saxon Charms.' In *New Approaches to Disease, Disability and Medicine in Medieval Europe*, edited by S. Künzel and E. Connelly, 5–18. Archaeopress, 2018. <https://doi.org/10.2307/j.ctv1nzw4t.5>.
- Mäkinen, M. 'Henry Daniel's Rosemary in MS X.90 of the Royal Library, Stockholm.' *Neuphilologische Mitteilungen* 103, no. 3 (2002): 305–327. ISSN: 0028-3754.

- Mavroudi, M. ‘Translations from Greek into Latin and Arabic during the Middle Ages: Searching for the Classical Tradition.’ *Speculum* 90, no. 1 (2015): 28–59. ISSN: 0038-7134.
- Moss, M., J. Cook, K. Wesnes, and P. Duckett. ‘Aromas of Rosemary and Lavender Essential Oils Differentially Affect Cognition and Mood in Healthy Adults.’ *International Journal of Neuroscience* 113, no. 1 (January 2003): 15–38. ISSN: 0020-7454. <https://doi.org/10.1080/00207450390161903>.
- Nieto, G., G. Ros, and J. Castillo. ‘Antioxidant and Antimicrobial Properties of Rosemary (*Rosmarinus Officinalis*, L.): A Review.’ *Medicines* 5, no. 3 (September 2018): 98. ISSN: 2305-6320. <https://doi.org/10.3390/medicines5030098>.
- ‘O.1.13 - Medical Texts.’ <https://mss-cat.trin.cam.ac.uk/Manuscript/O.1.13>.
- O.1.13 - The James Catalogue of Western Manuscripts*, January 2018. Accessed April 5, 2022. <https://mss-cat.trin.cam.ac.uk/Manuscript/O.1.13>.
- O’Boyle, C. ‘Medicine, God, and Aristotle in the Early Universities: Prefatory Prayers in Late Medieval Medicine Commentories.’ *Bulletin of the History of Medicine* 66, no. 2 (1992): 185–209. ISSN: 0007-5140.
- Philip, N., S. Leishman, H. Bandara, and L. Walsh. ‘Growth Inhibitory Effects of Antimicrobial Natural Products against Cariogenic and Health-Associated Oral Bacterial Species.’ *Oral Health & Preventive Dentistry* 18, no. 1 (2020): 537–542. ISSN: 1757-9996. <https://doi.org/10.3290/j.ohpd.a44307>.
- Rampton, M. ‘Magic and Materia Medica.’ In *Trafficking with Demons: Magic, Ritual, and Gender from Late Antiquity to 1000*, 360–383. Cornell University Press, 2021.
- Rawcliffe, C. *Medicine & Society in Later Medieval England*. Stroud, England : Alan Sutton Pub., 1995. ISBN: 978-0-86299-598-0.
- Roberson, B., and J. Stokes Jr. *Herbs and Flowers of the Virgin Mary*. <https://udayton.edu/imri/mary/h/herbs-and-flowers-of-the-virgin-mary.php>.
- Romagni, J.G., S.N. Allen, and F.E. Dayan. ‘Allelopathic Effects of Volatile Cineoles on Two Weedy Plant Species.’ *Journal of Chemical Ecology* 26, no. 1 (January 2000): 303–313. ISSN: 1573-1561. <https://doi.org/10.1023/A:1005414216848>.
- Saliba, G. ‘Greek Astronomy and the Medieval Arabic Tradition: The Medieval Islamic Astronomers Were Not Merely Translators. They May Also Have Played a Key Role in the Copernican Revolution.’ *American Scientist* 90, no. 4 (2002): 360–367. ISSN: 0003-0996.
- Shakespeare, W. *Hamlet*. Edited by T. J. Spencer. London: Penguin UK, 2005. ISBN: 978-0-14-101307-7.
- Siraisi, N.G. *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice*. Chicago, IL: University of Chicago Press, June 1990. ISBN: 978-0-226-76130-5.
- Skinner, C.M. *Myths and Legends of Flowers, Trees, Fruits, and Plants : In All Ages and in All Climes*. Philadelphia : J.B. Lippincott Co., 1911.

- Stannard, J. 'Medieval Herbalism and Post-Medieval Folk Medicine.' *Pharmacy in History* 55, nos. 2/3 (2013): 47–54. ISSN: 0031-7047.
- Taavitsainen, I., and P. Pahta, eds. *Medical and Scientific Writing in Late Medieval English*. Studies in English Language. Cambridge: Cambridge University Press, 2009. ISBN: 978-0-521-11041-9.
- Veenstra, J.P., and J.J. Johnson. 'Rosemary (Salvia Rosmarinus): Health-promoting Benefits and Food Preservative Properties.' *International journal of nutrition* 6, no. 4 (2021): 1–10. ISSN: 2379-7835.
- Voigts, L.E., and M.R. Schleissner. 'Multitudes of Middle English Medical Manuscripts, or the Englishing of Science and Medicine.' In *Manuscript Sources of Medieval Medicine: A Book of Essays*, 1st, 183–195. Garland, 1995. ISBN: 0-8153-0815-9.
- Al-Waili, N.S., K. Salom, G. Butler, and A.A. Al Ghamdi. 'Honey and Microbial Infections: A Review Supporting the Use of Honey for Microbial Control.' *Journal of Medicinal Food* 14, no. 10 (October 2011): 1079–1096. ISSN: 1096-620X, 1557-7600. <https://doi.org/10.1089/jmf.2010.0161>.
- Zimmermann, V. 'Der Rosmarin Als Heilpflanze Und Wunderdroge: Ein Beitrag Zu Den Mittelalterlichen Drogenmonographien.' *Sudhoffs Archiv* 64, no. 4 (1980): 351–370. ISSN: 0039-4564.