

Medieval Prose in Wales: The Physicians of Myddfai and Medieval Medical Texts

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Détail d'une enluminure du *Canon medicinae* d'[Avicenne](#) (Besançon - BM - ms. 0457 - f. 051).

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The Legend of the Lady of the Lake



Llyn y Fan Fach

- + Lady appears from the lake known as Llyn y Fan Fach
- + Son of the farm at Blaen Sawdde in Myddfai fell in love with her, offered her 3 kinds of bread and eventually she agreed to marry him.
- + Dowry of fine cattle etc.
- + Condition: he must not strike her 3 times (of course he won't!)
- + They live happily at Esgair Llaethdy Farm for many years and have 3 sons
- + 3 times he strikes her accidentally (at a baptism, a wedding and a funeral)
- + She returns to the lake taking her cattle, oxen and plough



Llyn y Fan Fach

- + The mother returned to visit her sons and teach them the virtues of plants and how to use herbs and local plants to heal the sick.
- + Rhiwallon (the eldest son) and his brothers became the renowned Physicians of Myddfai.
- + Many place and farm names remain in the area around Myddfai and Llanddeusant, e.g. Pant y Meddygon, Llwyn Ifan Feddyg.
- + Popular international folk motifs – the ‘Fairy Waterbride’, breaking a taboo, the fairy/mortal marriage.



The Legend of the Lady of the Lake

<https://www.youtube.com/watch?v=0Sub71snnUE>

See Robin Gwyndaf, *Welsh Folktales* (National Museum of Wales)



Did the Physicians exist?

- In the extant medieval Welsh manuscripts that contain medical texts there are references to 'Meddygon Myddfai / The Physicians of Myddfai'.
- The oldest text is a copy made in the fourteenth century (The Red Book of Hergest)

Here with the help of God, the almighty Lord, are shown the most important and essential remediesior man's body. And those who caused them to be written down in this manner were Rhiwallon, the doctor, and his sons, Cadwgan, Gruffudd, and Einion; for they were the best and leading doctors of their time and of the time of Rhys Gryg, their lord and Lord of Dinefwr, the man who safeguarded their status and privilege completely and honourably as was their due. And the reason they caused the rules of their art to be written down in this way was lest there be no one who knew them as well as they did after their days

[Owen, M E. Meddygon Myddfai: A Preliminary Survey of Some Medical Writings in Wales]



Did the Physicians exist?

- We also find in BL MS 14912:
- This book was put together from the various books of the physicians and mediciners, such books as have been proved to be correct, namely the books of Rhiwallon, the doctor, and his sons, namely Cadwgan, Gruffudd, and Einion.
- This suggests that there were real physicians who worked at the court of Rhys Gryg, lord of Dinefwr, and that they had training and medical knowledge that they passed down and recorded in the vernacular (Middle Welsh).
- They later became associated with the folktale explaining how they gained this almost supernatural knowledge of herbs and their use.



Rhys Gryg (Rhys the hoarse) died 1233

- Is addressed in a praise poem by to him by ' [Prydydd y Moch](#) ' (Llywarch ap Llywelyn).
- He was the fourth son of the ' [lord](#) ' [Rhys ap Gruffydd](#) (1132 - 1197), by Gwenllian, daughter of [Madog ap Maredudd](#) of Powys.
- According to the *Welsh Dictionary of National Biography*:
- 'He was an unreliable man, who rebelled against his father, played off one of his brothers against another, and played off king John against [Llywelyn ap Iorwerth](#). Physical bravery he certainly had, but no consistency can be discovered in his actions - other than self-seeking. From 1215, he was tolerably loyal to [Llywelyn ap Iorwerth](#), who at the Aberdovey council of 1216 confirmed him in the possession of the greater part of Cantref Mawr and Cantref Bychan, and of the commotes of Cydweli and Carnwyllion. Under [Llywelyn](#)'s banner, he joyfully stormed Norman castles in South Wales, but in one such onset (the attack on Carmarthen castle, in 1234), he was mortally wounded - he died at Llandeilo-fawr, and was buried at S. Davids.'
- There is an elegy to him by ' [Prydydd y Moch](#) ' - but on p. 384 of the volume, the same poem is attributed to [Prydydd Bychan](#).

Rhys Gryg (Rhys the hoarse) died 1233

- In the poem he is referred to as 'llyw Dinefwr' (the head/guide of Dinefwr) and 'taryan Ystrad Tywi' (the shield of Tywi Valley).
- He may have settled some of his officials at a manor in Myddfai.
- The Laws of Court (in medieval Welsh) list the privileges and payments a physician would receive. Herbs would be cultivated for him and he would receive specific payments for treating injuries, e.g. 8 pence for making up and ointment and 12 score pence for treating a blow to the head.

According to M. E. Owen:

‘The evidence of the law books suggests that there was in Wales a class of practical doctors some of whom were sponsored by the Prince’s Court...The Rhiwallon whom Rhys Gryg patronized might well have been one of these doctors.’

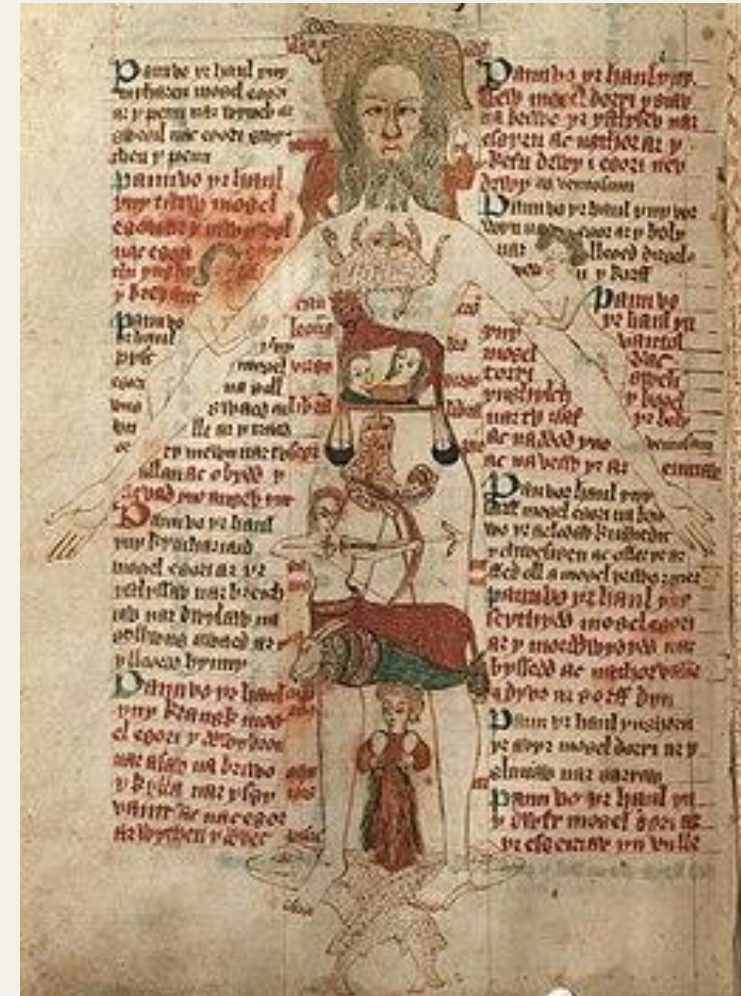
See her article in *Studia Celtica* 10-11 (1975) and also *The Cambrian Antiquary* (1995)

Image: National Library of Wales, CC0, via Wikimedia Commons Mostyn 88

Zodiac Man - Gutun Owain

c. 1400 (Valle Crucis?)

- Not all Welsh manuscripts containing medical material are associated with the Physicians of Myddfai but people have tended to oversimplify their connection and assume they were responsible for every text.
- This text is in the hand of Gutun Owain c. 1400 who copied medical lore, was associated with Valle Crucis Abbey and was also a Welsh poet.
- As we have seen, parts of the body were associated with particular star signs and this also determined when a patient should be treated for a particular illness or when bloodletting should be performed etc. and Zodiac Man summarizes much of this information.



The Four Humours

- Idea that originated in Ancient Greece (some say it came from Ancient Egypt), but it is usually attributed to Hippocrates C4th BC.
- The theory that there are 4 humours in the body (vital bodily fluids):
 1. Blood
 2. Yellow bile
 3. Black bile
 4. Phlegm

and that these are linked to the elements (earth, air, water, fire) – the body as a microcosm of the world.

- Important that these humours are well balanced

Hippocrates, *On the Nature of Man*:

The Human body contains blood, phlegm, yellow bile and black bile. These are the things that make up its constitution and cause its pains and health. Health is primarily that state in which these constituent substances are in the correct proportion to each other, both in strength and quantity, and are well mixed. Pain occurs when one of the substances presents either a deficiency or an excess, or is separated in the body and not mixed with others.

Mann, W. N. (1983). G. E. R. Lloyd (ed.). *Hippocratic writings*. (trans.) by J. Chadwick (Harmondsworth: Penguin, 1978), p. 262.

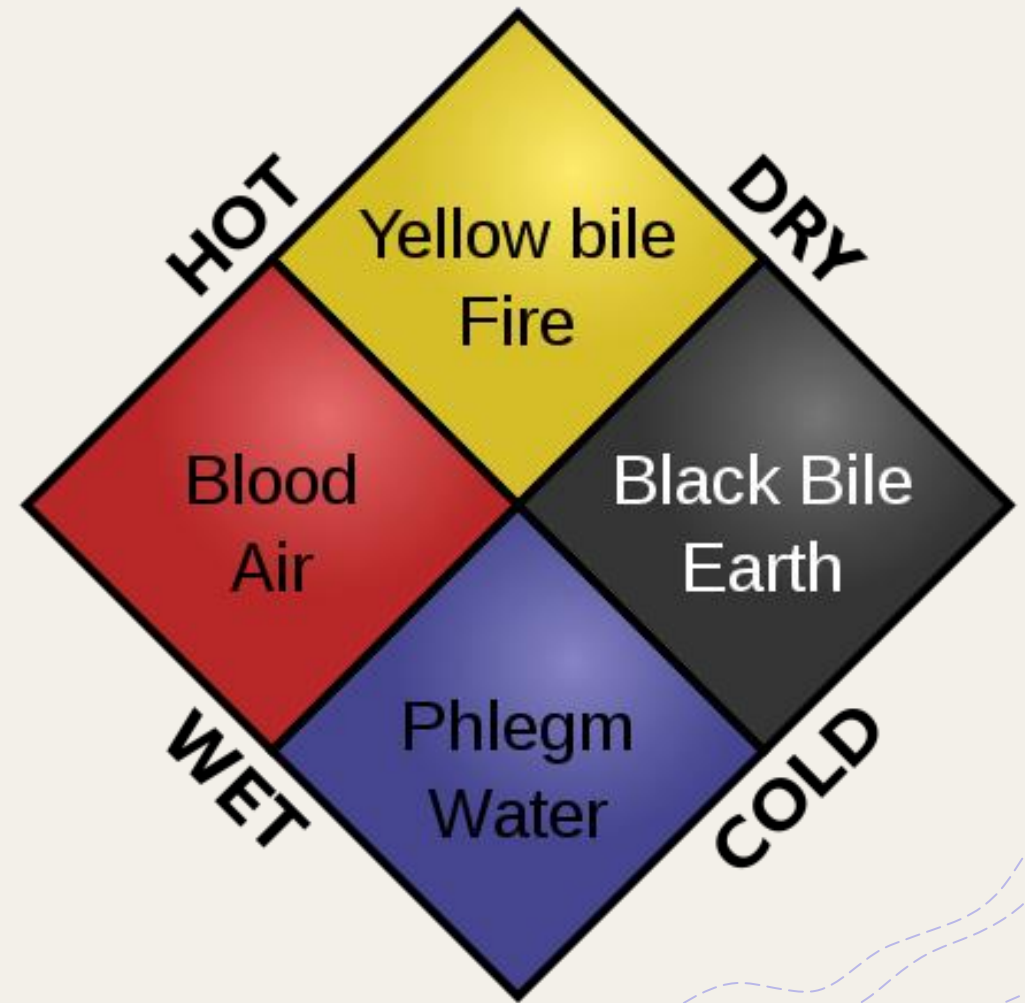
The Four Humours

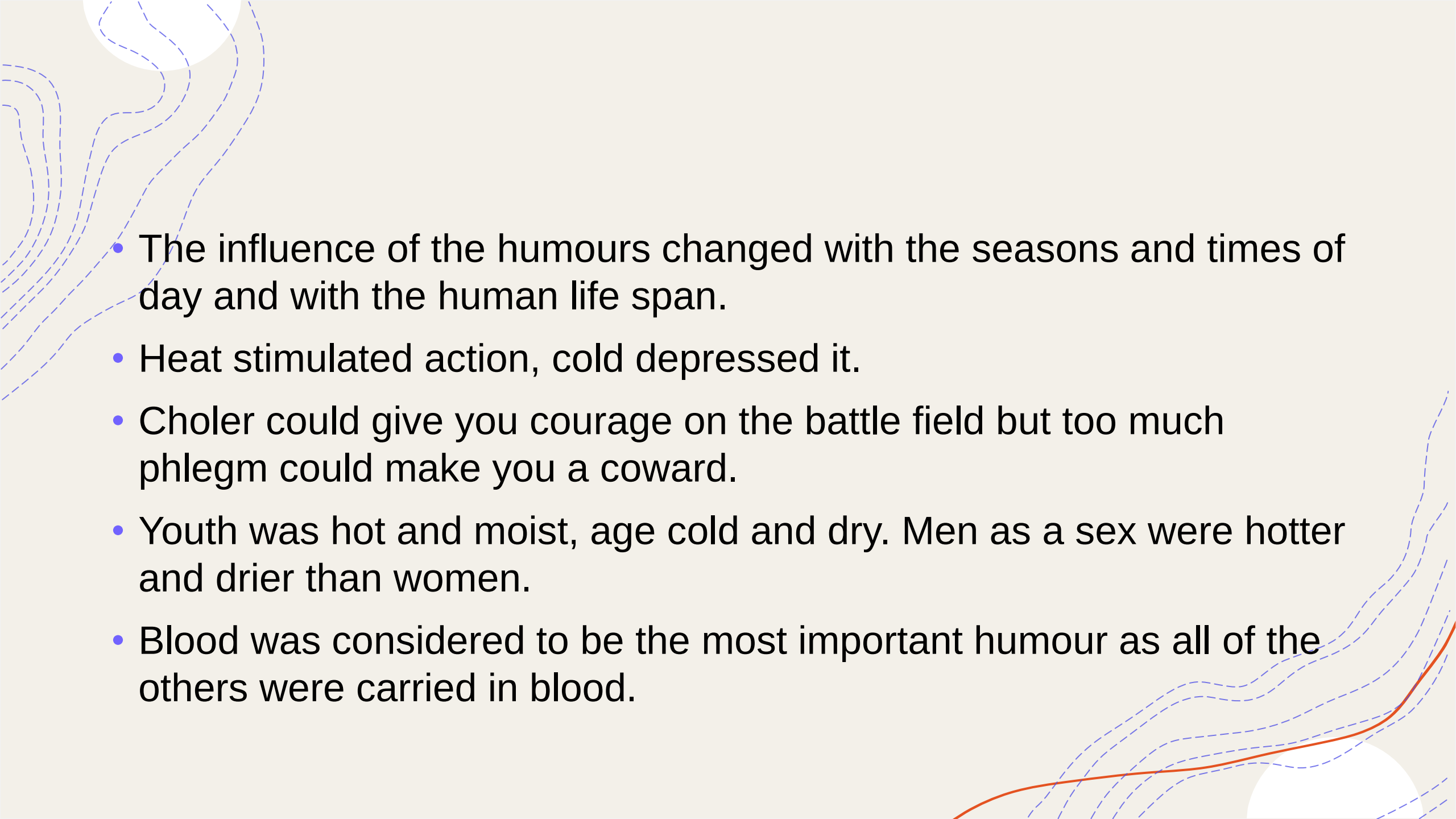
- The balance of humours in the body determine a patient's personality and health.
- dyscrasia = imbalance of the humours
- **Sanguine** – blood, associated with spring and air; sanguine temperament – courage, hope and playfulness; excess – fever and sweating; cure – bloodletting, leeches.
- **Choleric** – yellow bile, associated with summer and fire; temperament – restlessness and aggression; chamomile sometimes used to treat excess of this.

• Coffeevore, CC BY-SA 4.0 <<https://creativecommons.org/licenses/by-sa/4.0/>>, via Wikimedia Commons



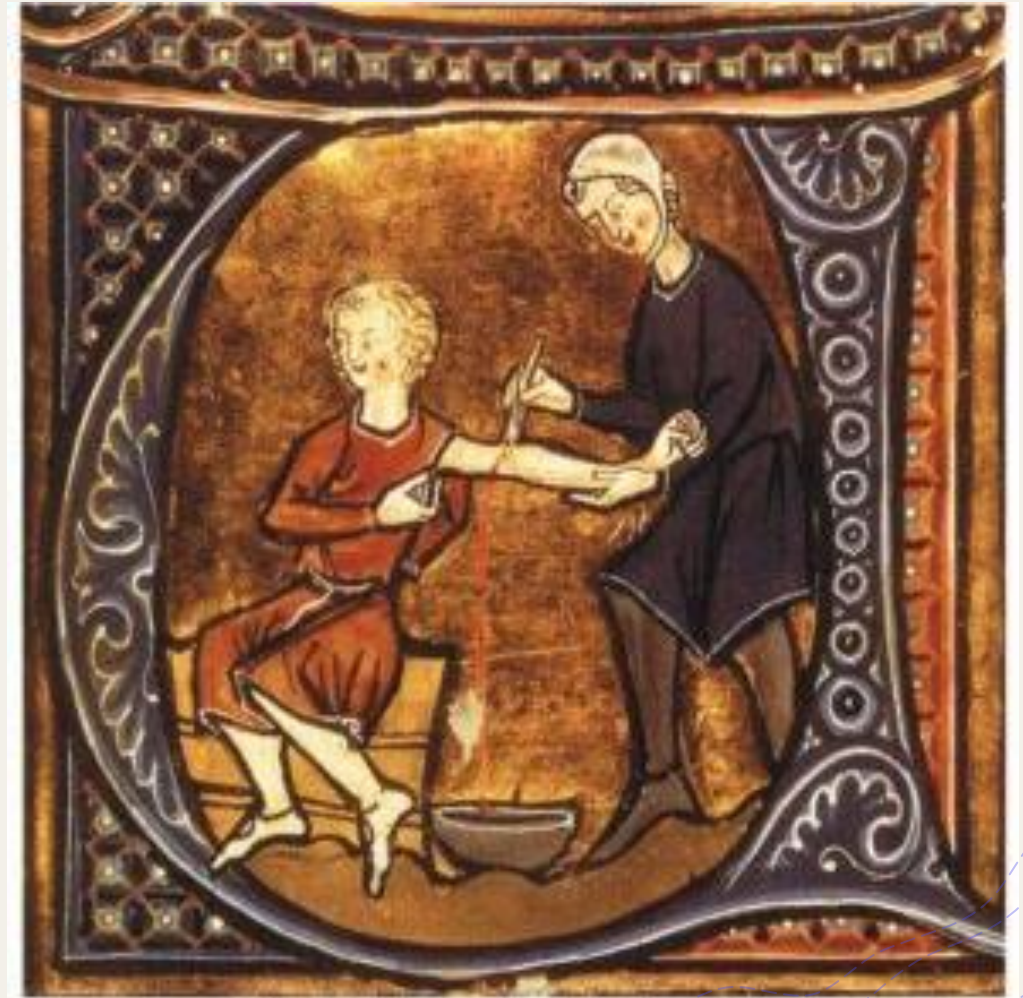
- **Melancholic** – black bile; associated with autumn and element earth; melancholic temperament – introverted, serious, sad and depressed; dietary or digestive problems; doctors might force patients to purge or throw up.
- **Phlegmatic** – phlegm; associated with winter and the element water; too much phlegm – respiratory problems, cough, cold or energy problems; cure – consuming fluids or reducing stress



- 
- The influence of the humours changed with the seasons and times of day and with the human life span.
 - Heat stimulated action, cold depressed it.
 - Choler could give you courage on the battle field but too much phlegm could make you a coward.
 - Youth was hot and moist, age cold and dry. Men as a sex were hotter and drier than women.
 - Blood was considered to be the most important humour as all of the others were carried in blood.

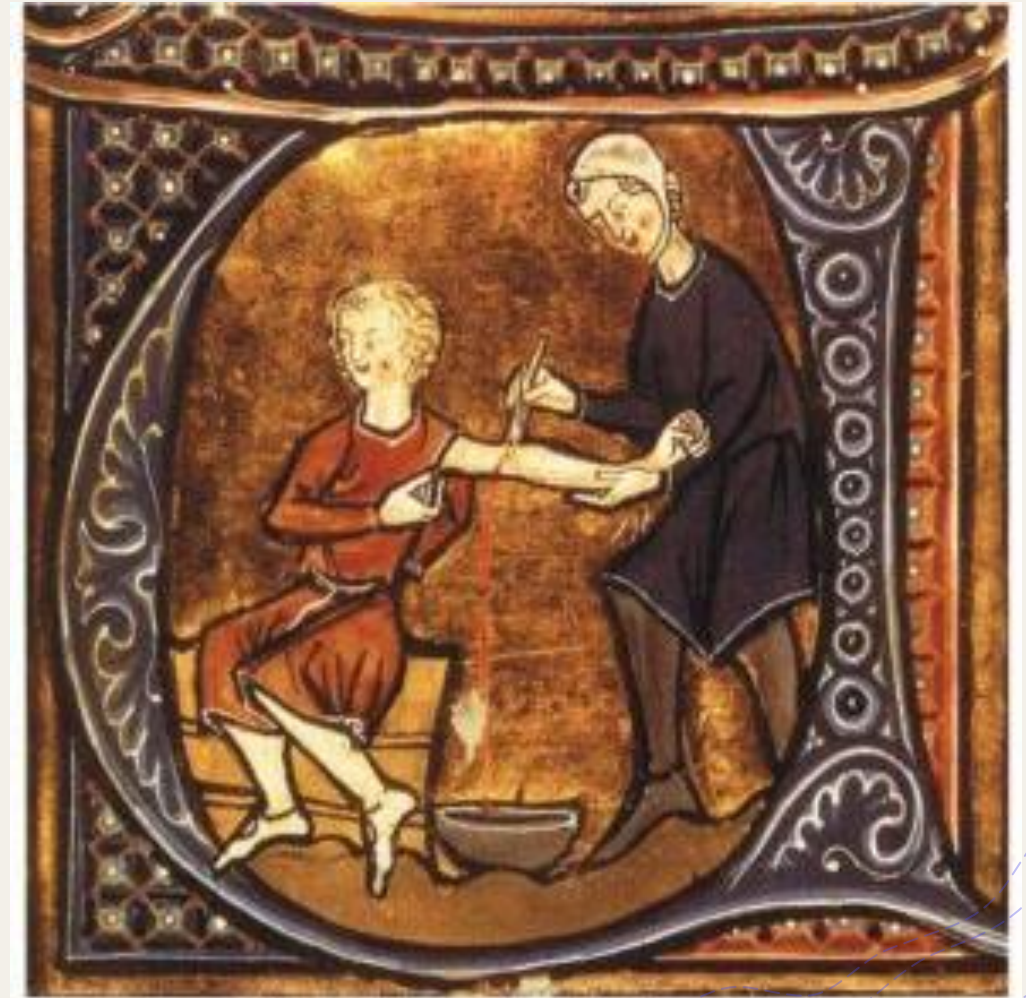
Bloodletting

- Also known as phlebotomy
- Different methods of bloodletting are illustrated from a collection of medieval manuscript in Nancy G. Sirasi, *Medieval and Early Renaissance Medicine* (Chicago: Chicago University Press, 1990), p. 139.
- These include bloodletting – slicing the skin and collecting the blood in bowl; cupping – the practitioner places heated metal cups on the skin to draw the humor to the part of the body being treated;
- Illustrated guides to bloodletting list the sites and note the appropriate veins to incise for different complaints e.g. the basilic vein in the arm should be incised for complaints of the liver or spleen.



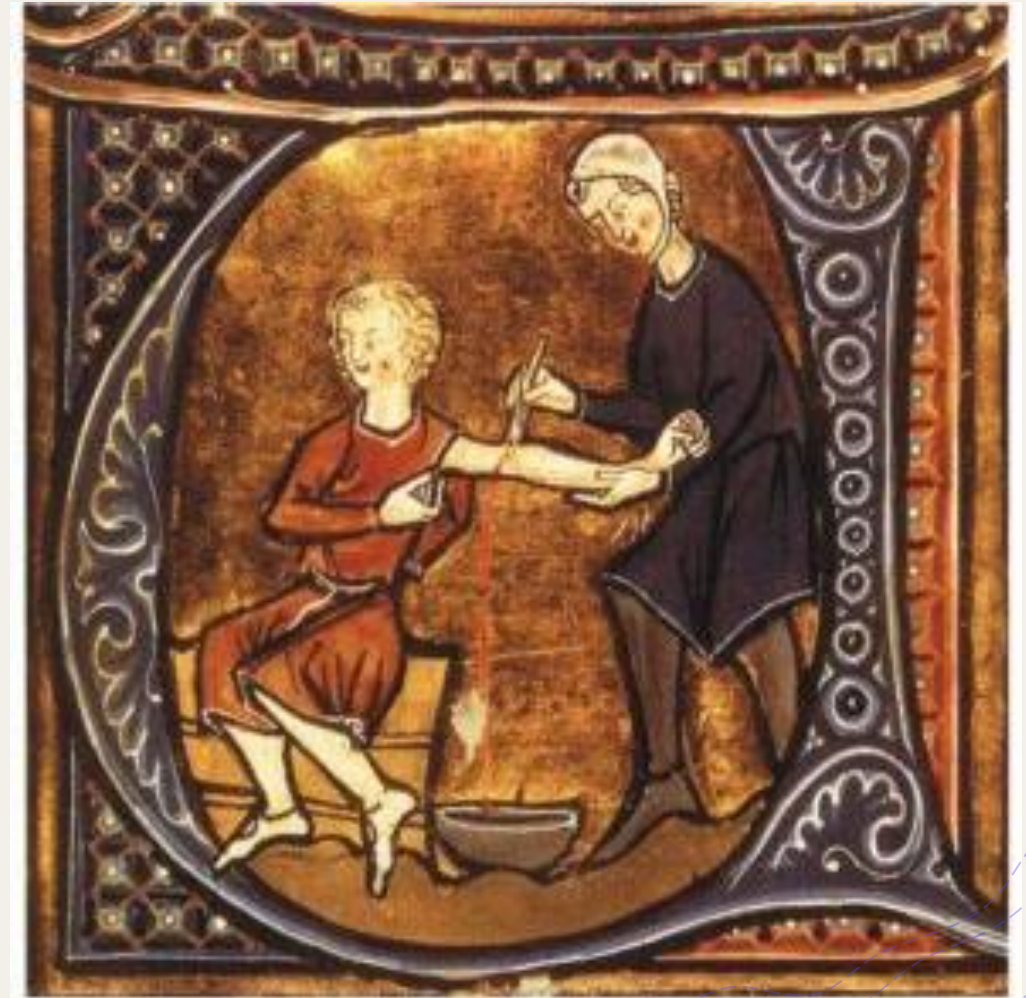
Bloodletting 2

- Unquestionably one of the most frequent forms of general therapy.
- Sirasi: 'The principle behind this ancient and long-lived therapeutic procedure was that bloodletting drew off corrupt matter from the body. Each of the four humours, all of which was contained in blood, was capable of being transformed by disordered complexion into harmful secondary humour that had to be removed if the patient was to recover (or maintain) health. Galen was influential in systematizing and elaborating these concepts as well as many others.' pp.139-140



Bloodletting 3

- Blood commonly drawn from one of the three major veins in the arm – the cephalic, median or basilic veins.
- Other veins could be used to treat specific conditions, e.g. the vein in the forehead for treating melancholy.
- Some medieval manuscripts warn against letting out too much blood and states that the patient should not be so weak he/she will faint.
- Unskilled phlebotomy could lead to cutting an artery; swelling of arm; infection and death.
- Bloodletting normally performed by surgical venesection, although leeches were also used.



Using Leeches

- Use of leeches in medicine dates from the Stone Age to the present and has stretched across the globe.
- In the past, leeches were believed to remove evil spirits or humors from the body, while present knowledge of the unique properties of *Hirudo medicinalis* allows for its application to various surgical situations, particularly in reconstructive surgery.

• Image: İZMİR HACAMAT, CC BY-SA 4.0 <<https://creativecommons.org/licenses/by-sa/4.0/>>, via Wikimedia Commons



Using Leeches

- The key to the leech's success was discovered in 1884 by British physiologist John Haycraft when he discovered the leech secretes hirudin, a potent anticoagulant.
- Released from the leech's salivary glands, the polypeptide hirudin binds with high affinity to the coagulation enzyme thrombin, blocking further formation of fibrin from fibrinogen and thus inhibiting the coagulation cascade. As such, prior to the discovery of heparin, hirudin was one of the few agents known and used to inhibit clotting and has been used as an anticoagulant during blood transfusions since the early 1900s ([Derganc & Zdravic, 1960](#)).
- In 1955, hirudin was first successfully isolated by Markwardt, reducing the importance of the animal in favour of its product ([Spear, 2016](#)).

- The benefits of utilizing leeches to alleviate venous congestion in reconstructive procedures include increased viability of the flap from increased venous outflow as well as increased likelihood of replantation success in soft-tissue avulsion injuries.
- Leech therapy remains valuable in contemporary reconstructive surgery as an adjuvant to promote successful flap microvasculature survival, and can even make the difference between limb loss and salvage.
- There is a leech farm in Hendy, near Swansea called Biopharm. Established originally in 1812, it moved to its current base in 1984. Biopharm specialises in the cultivation of the medicinal leech, currently producing the majority of leeches used in modern medicine worldwide.

Sources:

- Derganc M., Zdravic F. 'Venous congestion of flaps treated by application of leeches', *British Journal of Plastic Surgery*, 13 (1960), 187-192.
- Oliver, J. and E. DeLoughery, 'Leeches and Plastic Surgery in the Modern Era', *Plastic Surgical Nursing* 38 (3) (2018), 88 – 89.

Astrology

- Medieval astrologers believed that the movements of the stars influenced the weather, growth and success of crops, babies' personalities and illness.
- Parts of the body were associated with particular star signs and this also determined when a patient should be treated for a particular illness or when bloodletting should be performed etc.
- Physicians would often carry almanacs that would include illustrated star charts or figures of Zodiac Man and they would sometimes check the position of the stars before diagnosing what was wrong with the patient.
- There was close link between the time of year, the moon's seasons and other astrological factors and health and medical treatment, as they would affect the body's humours.

Image: National Library of Wales, CC0, via Wikimedia Commons

Zodiac Man, Abersytwyth, NLW Mostyn 88, p. 26
by Gutun Owain (who was also a Welsh poet) c.
1400



Uroscopy – examining urine

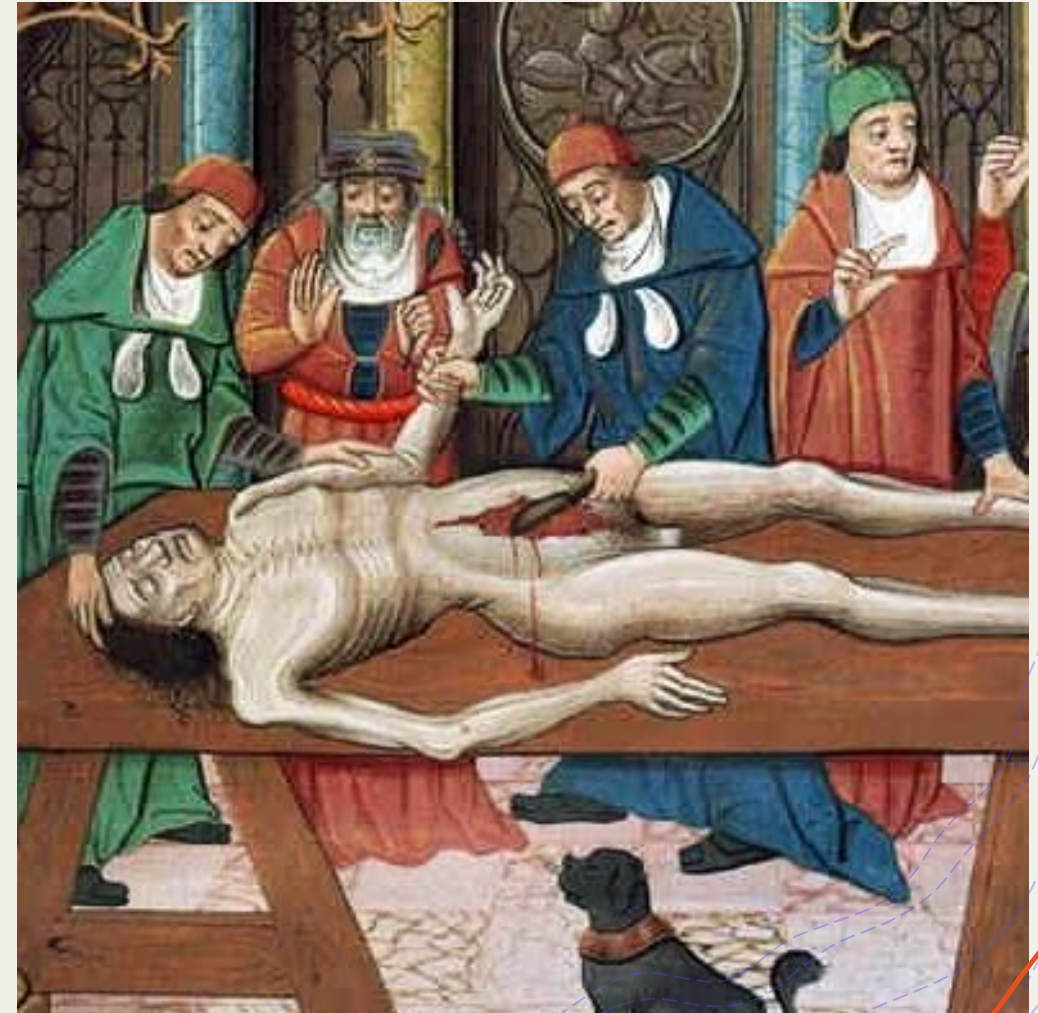
- Medieval doctors often made their diagnoses by examining stools, blood and especially urine. Numerous manuscripts from this period include images of doctors holding flasks of urine up to the light. Some medical treatises, such as this one, contain illustrations showing urine in different colours. This would have acted as a kind of chart, helping doctors to make decisions about their patients.
- Support from properly trained doctors would only have been available to a minority - the wealthy and those in monasteries, for instance. Most ordinary people, particularly those outside towns, would have found it difficult to access professional care. Those in need of medical assistance might instead turn to local people who had medical knowledge derived from folk traditions and practical experience.

Source and Image: British Library, Harley 3140 f. 32v



Surgery

- In the medieval period there were skilled literate surgeons at the head of the profession, but surgical procedures were also carried out by craftsmen who often specialized in a particular form of surgery, e.g. cataracts.
- Some surgeons were often keen to distinguish themselves from these. According to Bruno Longoburgo:
 - ‘I think scarcely anyone who is illiterate can understand this at, but at the present time...those who exercise this art are for the most part ignorant and stupid peasants; and on account of their stupidity the worst possible diseases are generated in people, by which indeed the patients are killed since surgeons operate neither wisely nor according to certain reasoning, but haphazardly.’ (quoted in Siraisi, 177)
- Physicians and surgeons often belonged to separate guilds. From the C12th to the C15th some surgeons followed armies in Europe. War often considered a ‘school for surgeons’.
- Galen dissected animals and surgeons often loathe to disagree with Galenic theory.
- Dissection for medical purposes first introduced in University of Bologna became more prominent from 1299.
- Dissection scene, from 'Le Livre des Proprietes des Choses' by Barthelemy l'Anglais Unknown authorUnknown author, Public domain, via Wikimedia Commons



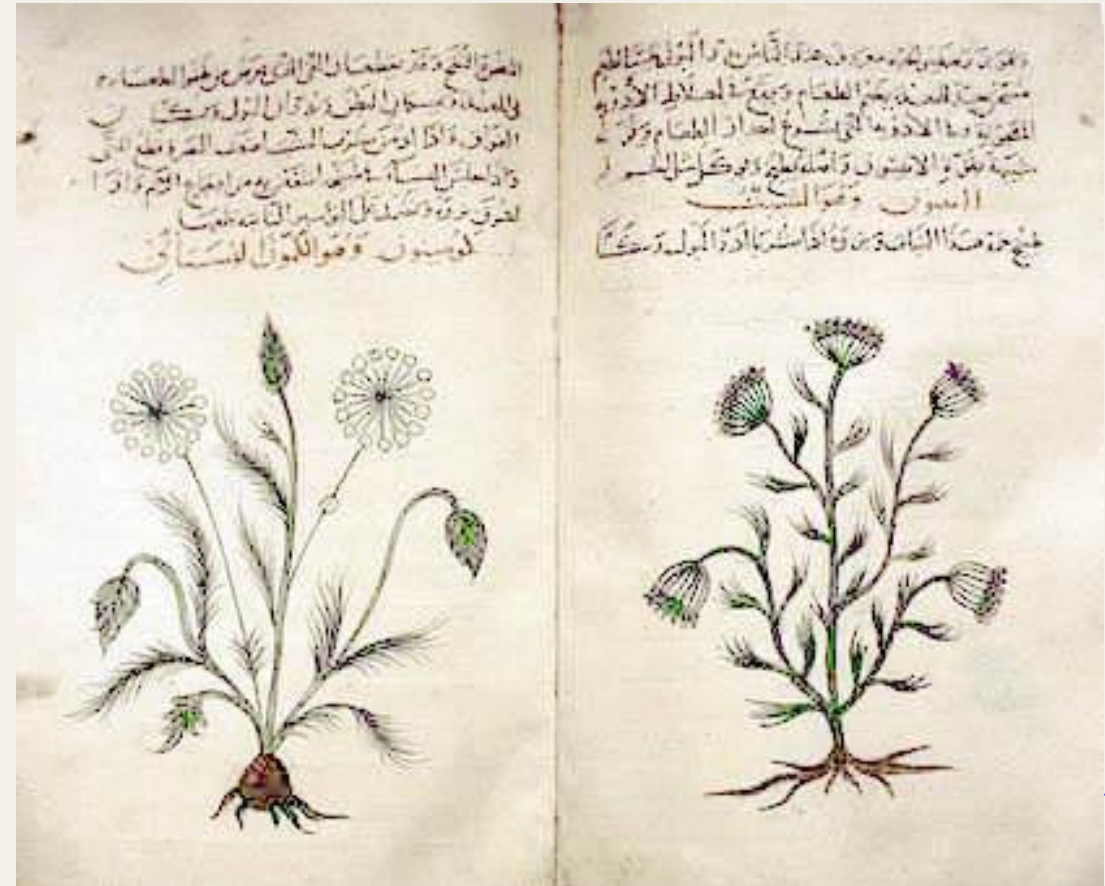
- The image on the right is from an illustrated medical compendium – a fourteenth-century copy of a French translation of *Chirurgia* (Surgery) originally written by the Lombard surgeon Roger Frugardi (d. before 1195)
- Skull fractures were common in battle and it would appear that people must have been treated successfully sometimes for these since medieval skulls with bones that have knitted together are testimony to the fact that people did survive quite traumatic head injuries.
- This MS on the BL website juxtaposes scenes from the Life of Christ with scenes showing surgeons treating head injuries. This might seem a strange mix to us, but Christianity was so prevalent in the Middle Ages that associating faith with healing was perfectly normal. The sick person, as well as the surgeon, might well pray for assistance and the monastic houses were closely associated with medical lore as well as the foundation of hospitals, e.g. St Bartholomew's in London (founded 1123).



Herbal Medicine

- Medical recipes often included herbs and plants (sometimes also minerals)
- Monks and nuns would cultivate herbs with medicinal quantities and dedicated much time to treating the sick (charitable work); also often associated with early hospitals and infirmaries.
- Treatment might include combination of herbal remedies and prayer
- physic gardens – types of herbs grown might depend on local area
- also secular physicians e.g. in Wales Physicians of Myddfai employed by Lord Rhys Gryg
- Folk medicine used herbal remedies passed from one generation to another.

Source: http://en.wikipedia.org/wiki/Image:Arabic_herbal_medicine_guidebook.jpeg Dioscorides: Materia Medica.

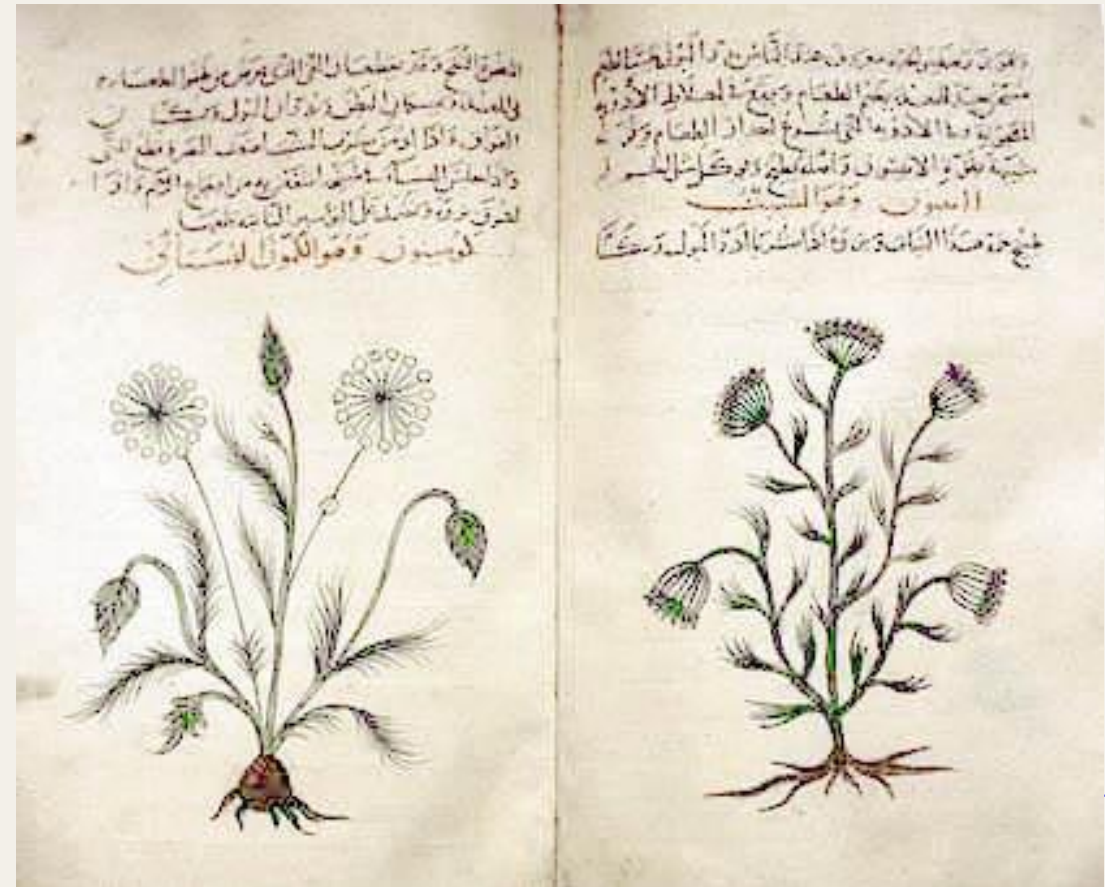


- For **nose bleed** : boil garlic in watered milk and drink it; that is proven.

Source: http://en.wikipedia.org/wiki/Image:Arabic_herbal_medicine_guidebook.jpeg Dioscorides: Materia Medica.

'There are three places **where diseases develop**, one is the scalp, the second is the cranium, the third is the dura mater. 'The scalp is saved by cautery and bleeding. The cranium is saved by opening the head as far as the cranium, the dura mater is saved by opening the head as far as the dura mater'

'To improve a man's **hearing**: take boar's urine and clarified honey and mix it together well and let it drop into the ear, having been cooled to the warmth of new milk. Take two pounds of burnt lime and mix it with a pound of all spice and put all that in a pot to boil with water, and then take it from the fire and put it to dry.'

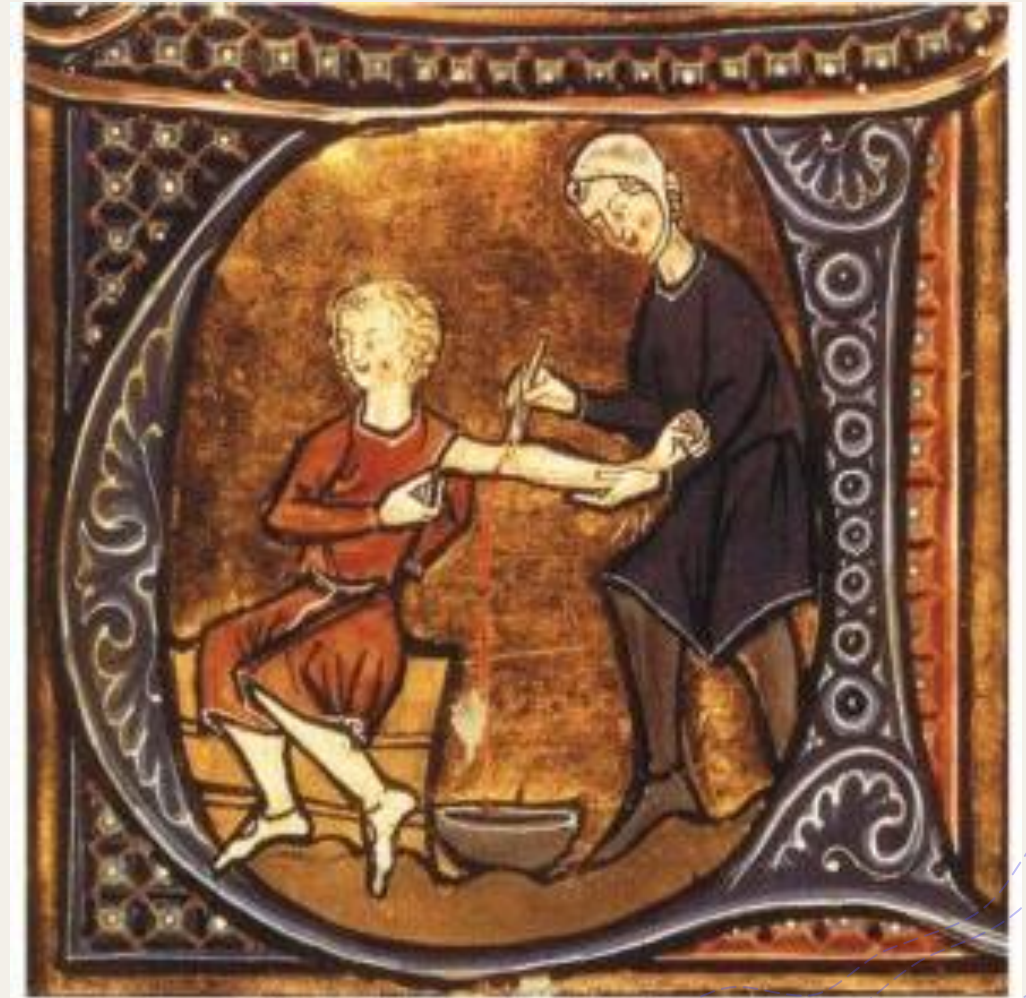


What do the Welsh medical manuscripts contain?

- Much of the medical theories are based on Galenic anatomy and Aristotelian humoral theory.
- Relatively little on anatomy; most consists of long lists of plant and animal recipes aimed at treatment of disease
- Sometimes these are arranged in head to foot order
- The doctor often made a diagnosis based on uroscopy (often without seeing the patient);
- For Welsh recipes see Diana Luft (ed.and trans.), *Medieval Welsh Medical Texts: vol. one the recipes* (Cardiff: University of Wales Press, 2020)

Bloodletting

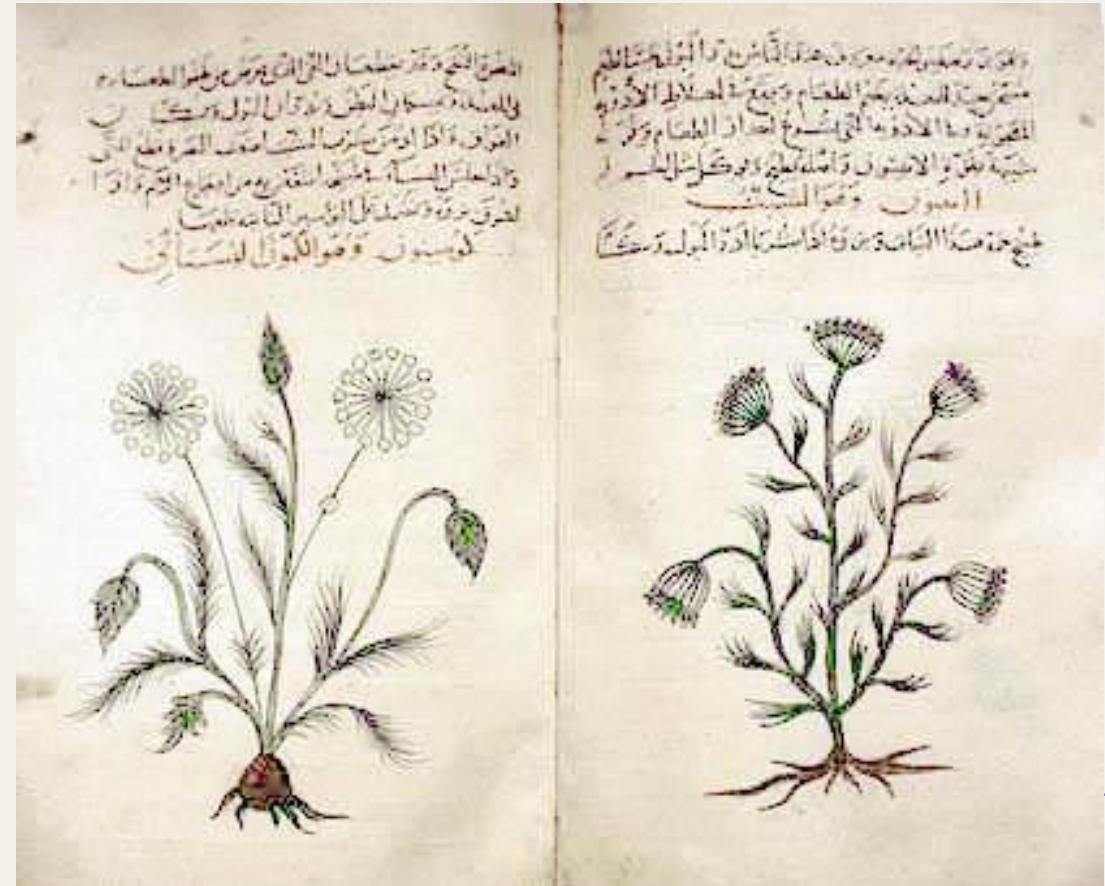
- The Welsh texts refer to bloodletting on particular days and provide calendars for this purpose.
- They mention leeches and provide brief instructions:
- ‘Blood should be let until it changes its colour. If it flows black, allow it to come out until it becomes red. If it is thick, let it flow until it becomes thin. If it is watery, let it flow until it is thick.’ (obviously this relied to a great extent on the physician’s judgment!)



Source: http://en.wikipedia.org/wiki/Image:Arabic_herbal_medicine_guidebook.jpeg Dioscorides: Materia Medica.

M. E. Owen records a form of anaesthesia:

‘This is a potion which, when taken, causes man to Sleep when he be opened; wherever the wound may be the potion eases the pain. The the juice of opu-tebagia, the sea holly, the papaver, namely the poppy, mandrake, rood ivy, blackberries, hemlock, lettuce, each one in equal amount. Let them be mixed in a clean earthenware dish and left in it and let this potion be made during the Dog-day and when preparations are being made lo open the patient, cause him to watch as long as possible and after that, let some of the mixture be put in his nostrils and he shall sleep without pain’



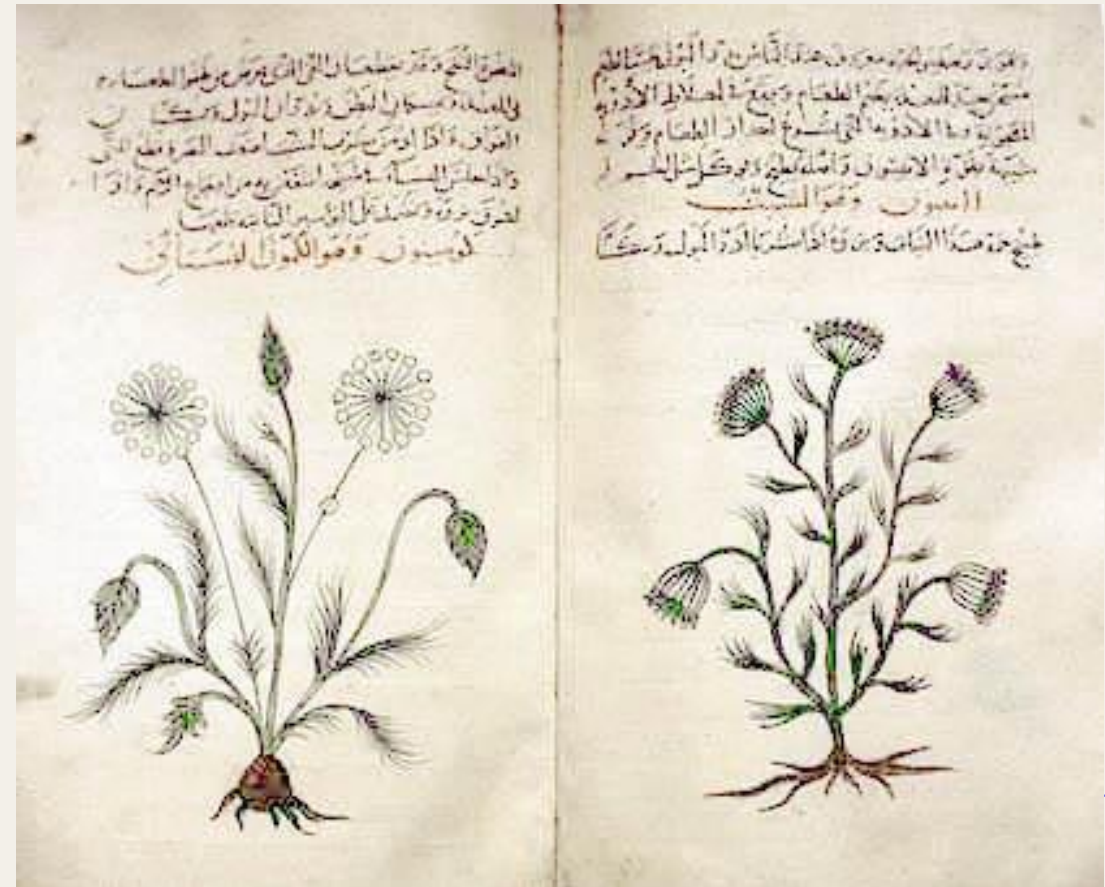
Source: http://en.wikipedia.org/wiki/Image:Arabic_herbal_medicine_guidebook.jpeg Dioscorides: Materia Medica.

.For diseased eyelids:

For a dry scurfy condition of the eye.
Take the juice of the strawberry, a hen's fat and May butter. Pound them well together, and keep in a horn (container). When going to bed, anoint about the eye and eyelids well , and they will be cured.'

Cooling drinks:

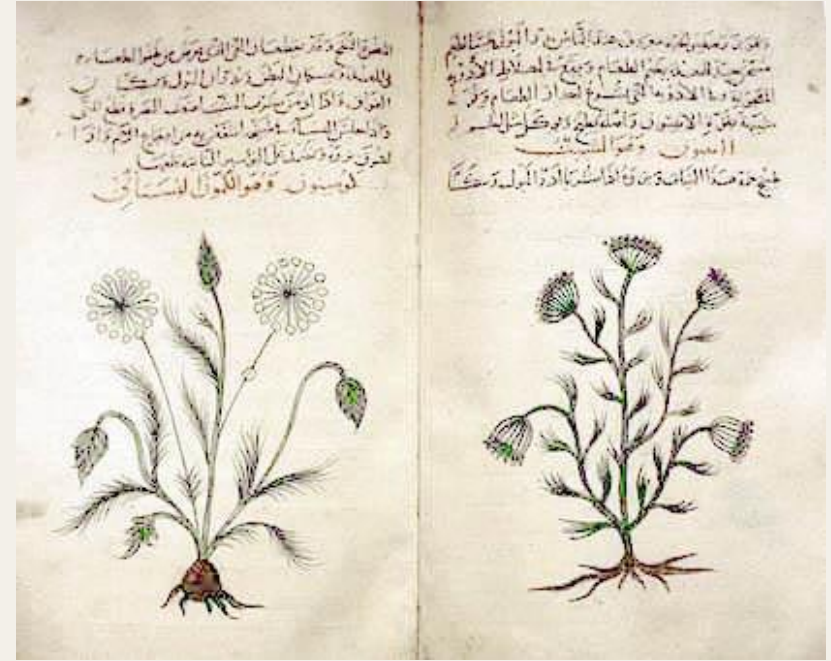
The three best cooling drinks are apple juice, goat's whey and spring water.



For pneumonia:

There are three kinds of lung disease: simple pneumonia; white pneumonia [bronchitis]; and black pneumonia [phthisis]. Black pneumonia is marked by pain below the breasts, under the armpits, and in the top of the shoulders, with acute redness of the cheeks.

These diseases are treated as follows. Let the patient take, for three successive days, the following herbs: hemlock, agrimony, herb Robert and asarabacca. Then let him undergo a three day's course of laxatives. When the disease is thus removed from the bronchial tubes, an emetic should be given to the patient daily until the end of 9 days. Afterwards let a medicine be prepared, by infusing the following herbs in wheat, ale or red wine: madder, sharp dock, anise, agrimony, daisy, round birthwort, meadow sweet, yellow goat's beard, heath, water avens, woodruff, crake berry, the corn cockle, caraway, and such other herbs as will seem beneficial by the physician.

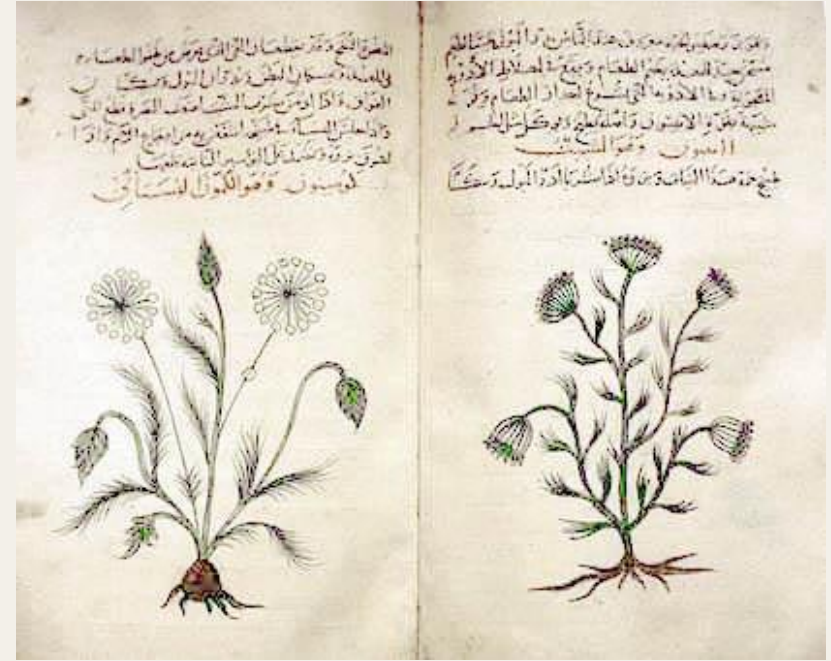


Treatment for sterility:

A sterile woman may have a potion prepared for her by means of the following herbs, namely, St John's wort, yew, agrimony, amphibious persicaria, creeping cinque foil, mountain club moss, orpine, pimpernel, taking an emetic in addition.

Exfoliation of the skull:

Dandelion digested in cold water and drunk, will promote the exfoliation of the skull of aged men.



Treatment of piles:

There are two types of piles, wet piles and hot piles, and they originate in the summer. Hot piles issue from the heat of the summer. Wet piles issue from the wetness of the summer, should the blood dry up in it. There are four veins from the liver which go to the posterior, and this is how it is done: bind three of them, and leave the fourth one free, and cauterise on the small of his legs and around his knees and his kidneys, and let blood from the ankles to the thighs.* 1/16. And after the cauteries have run fully, this is the second medicine: let him take common mallow and boil it in beer made from wheat, or in spring water. And then let him take the bark that is underground from the elder, and crush it well in a mortar and add it to that decoction raw and give it to the patient. And that is good to relieve pain and to free the sight

Bites and charms

Hafod 16 discusses serious conditions such as cancer, St Anthony's Fire and less serious ones such as toothache. Also how to treat dog and snake bites and bee stings.

+It contains 11 charms – some in Latin and others in Welsh

‘For the bile of a serpent or a sick dog write these words around the bottom of a vessel made of sycamore, and take clean water and delete that writing, and give [the water] to the bitten person to drink before he goeth to sleep + Zable + leo + fortis + decim + cephans + ‘

Cancerous tumours

For a cancerous tumour, take goat dung and barley flour and red wine and boil them into a porridge and put it on it, and that is the best medicine where it may not be removed.

To remain chaste!

If you want to be chaste, eat some of the herbs that are called rue every day, and you will never consent to the passion of fornication.

Some recipes are rather strange...

- + Take a black toad which is only able to crawl, and beat it with a stick until it becomes furious and so that it swells until it dies, and take it and put it into an earthenware cooking pot and close the lid on it so that the smoke may not escape nor the air get into it, and burn it in the pot until it is ashes, and cast these ashes on it-Another is take a raven by the same process and throw the ashes on it. (Quoted in Owen SC, 231)

The Plague

+ [In Our Time - The Black Death - BBC Sounds](#)

What did medieval medicine have in common with medicine today?

Balanced and varied diet important;

Certain lifestyles may make you prone to illness;

Exercise and sleep important to wellbeing;

Herbs and plants used in medicine;

Illnesses believed to spread from person to person;

Diagnosis by testing urine and stools;

Leeches still used in medicine (but for different reasons).

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Medieval Welsh Medical Texts | UWP

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