

Medieval Medical School

An activity developed by Anna Dysert at the Osler Library of the History of Medicine, McGill University.

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Capitula:

Notes on set-up

Presentation of background information

Student activity handout

Patient case histories

Zodiac Man poster

Urine wheel poster

Hints for activity leaders

Medieval medical school diploma

Notes on set-up

Participants: 12 to 20 participants, divided into four groups of 3-5

Supplies: transparent flasks or beakers, various liquids and food colouring; printouts of activity hand-outs, Urine Wheel image, and Zodiac Man image (these latter two can either be printed out in large format for the group to share or be printed out on individual sheets).

Duration: approximately ninety minutes

This activity was originally designed for four small groups. The background information should be presented to the group as a whole, with time for questions or clarifications. Following that, the four small groups should each receive a patient history, a handout, and a glass beaker with the appropriately coloured “urine”: the group with patient Baron Leofrick von Turpentyn should have a flask of water dyed to one of the colours corresponding to black bile (red, green, dark grey or black); the group with patient Dame Emengar la Béguine should have water that corresponds to the colours of yellow bile (brown, pale grey, milky, or clear); the group with patient Amicia Rotenheryng should have water that corresponds to the colours of blood (pale yellow, lemon yellow, or golden); and the group with patient Bonnefoy l’Anglois should have water that corresponds to the colours of phlegm (saffron yellow, orangey yellow, or orange). The large images of the Urine Wheel and Zodiac Man should be made available either as printed posters for the whole class to consult or as individual printouts. After dividing up into groups, the facilitator should go over activity instructions on the hand-out. While the groups are discussing their patients and working out their diagnoses and treatment plans, the instructor should check in with groups to conduct informal assessment of learning and comprehension, providing help and hints as necessary. The document “Hints for activity leaders” provides explanations of each patient’s case to help the facilitator. For the final thirty minutes of the session, allow each group to present their patient, discuss their case and diagnosis, and explain their treatment plans to the other groups. The medieval medical school diploma can be printed out (bonus points for staining the paper with tea bags to look aged!) and given to participants for fun.

For information or assistance, please contact the library at osler.library@mcgill.ca.

Presentation of background information

The period known as the Middle Ages was from approximately 800 CE-1400 CE. The Middle Ages as we imagine it from movies (Knights! Princesses! Jousts!) is the Middle Ages from around 1200-1400 CE and that's the period that we're looking at today. So, what did life look like? Medieval society was pretty much divided up into what's called the "Three Estates", three different kinds of social groups: the first group of people were those involved with the Christian Church (priests, nuns, monks: people who pray); the second was the nobility (kings and rulers: people whose job it was to fight); and finally, everybody else! (rich and poor commoners, peasants, serfs, craftspeople, and later merchants: people who worked).

People lived in cities and in the countryside. People in the countryside were usually involved with farming and food production. Medieval people had medical schools like we do today even though the schools weren't like ours. They had doctors, medicines, dentists, surgeons, everything—but doing everything with a lot less technology than we have today.

Most importantly, medieval people had a different idea about how the body works. For example, what do we know about medical science? We know that there are microscopic creatures called germs that make you sick; we know that your blood pumps around your body in a circle orchestrated by the heart; we know that we can use chemicals specially processed in high tech laboratories to kill the tiny organisms that make us sick.

Medieval people didn't know that germs existed. Microscopes weren't even invented until 1674. So, what did medieval people think was making them sick?

Medieval people were quite religious, so there was the idea that illness and suffering come from above. But there were also "scientific" explanations based on how people believed the body worked. To understand these, we must look at an even bigger question about science. One of the most basic questions about science today is and back then was, what is the world made of? What is "matter"? What is the universe made of? In the medieval era people believed that the universe and everything in it, including the body, were made up of four elements: earth, water, fire, and air. And these four elements were made up of four qualities: hot, cold, wet, and dry. And you can kind of understand where this comes from! They didn't have microscopes, so they didn't know there were any smaller bits, like atoms. This four-element theory is based on observation of the natural world around them.

In the body, these four qualities were thought to combine to make four “humors”: liquids that medieval people thought the body contained. “Phlegm” they thought was wet and cold and watery; “blood” was hot and wet; “yellow bile” was hot and dry and fiery; and “black bile” was cold and dry. So not only was the human body made of these substances, but these were the things that either made you sick or kept you healthy. Doctors believed that when you had too much of one humour or not enough of a humour, that was how you got sick. This is why bloodletting was thought to work. Doctors would let blood either by making a small incision in a vein or using leeches –the idea is that if there was too much of one humor, this is how you needed to let it out! People also were thought to have different personalities based on the individual balance of the humors in their body. For example, some words we use to describe people’s characters today are based on the medieval humors: someone who is “choleric” (in Latin, *cholera*, also known as yellow bile) tends towards anger and irritability, while someone who is “sanguine” (*sanguis* is the Latin word for blood) is optimistic and good-spirited.

Too much blood, though, and you might have to take some of the excess out! One way was to augment the opposite humour, so somebody who had too much of a “hot” personality needed to eat cold food, take cold baths, roll in the snow, whatever the doctor could think of.

Because these four qualities in the body were also thought to be found in the universe, there was a strong connection between people and the stars... what we call medical astrology. The different astrological systems were thought to control different parts of the body. Somebody who was a certain sign might also have trouble with the part of her body associated with it (for example, somebody who’s an Aries might have more headaches). When doctors treated patients, they had to take into account what the current astrological sign was, because it might be dangerous to do something to that part of the body (for example, in May, it’s Taurus—which means were a medieval doctor working today, he would have to be very careful about doing any treatments like bloodletting around the throat).

Something to remember before you start your medieval doctor licensing program: what’s the most important service a medieval doctor had to give his patients? **A good story!** These treatments, as you can imagine, don’t really work that well. They’re painful and uncomfortable. So, the most important thing a medieval doctor gave to his patients was comfort, making them feel like they were being taken care of by a trained, competent professional ... so doctors’ explanations to patients were, in a way, the best remedies they had.

Student Activity Handout

Your tasks as doctors-in-training:

1. Diagnose the illness.

Do this by:

- Figuring out anything that would be affecting your patient's humours (like, weather? Diet? Lifestyle? Strong emotional states?)
- Analyzing the symptoms
- Evaluating your patient's bodily secretions (use the urine chart!)
- Figure out what kind of personality your patient has

2. Devise a treatment plan.

Do this by:

- Recommending ways to increase the humour that is lacking
- Recommending ways to decrease the humour that your patient has too much of
- Make sure to take into account the astrological chart!

3. Now, you must explain everything to your patient.

Patients want their doctors to be very knowledgeable about medical theory and to tell them exactly what's going on. You'll also have to tell them what their treatment plan will be. Your treatments can be as creative and outlandish as you want, as long as you can explain the reasoning behind it to your patient! Work on what you will say to your patient (this will be presented to the whole group at the end of the session).

The four humours and their qualities:

Blood Qualities: Hot and wet Associated element: Air Kids have more of this humour. Traits: Friendly, likes to have fun, talkative, boisterous.	Black bile Qualities: Cold and dry Associated element: Earth Old people have more of this humour. Traits: Introverted, sensitive, thoughtful, creative
Phlegm Qualities: Cold and wet Associated element: Water Adults have more! Traits: Relaxed, quiet, accepting, sometimes lazy	Yellow bile Qualities: Hot and dry Associated element: Fire Teenagers have more! Traits: Passionate, energetic, prone to anger



Baron Leofrick von Turpentyn

Date of birth: May 19, 1266

The noble Baron von Turpentyn is normally a placid fellow. He enjoys hawking with his sons, dining on pheasants, and watching a good morality play. But lately he spends all his time listening to minstrel songs and crying quietly into his ale. Upon examination, you find out that he has a dry, hacking cough and is going a bit deaf. He comes to you right after Christmas begging you to cure what ails him!



Dame Emengar la Béguine

Date of birth: July 10, 1302

Dame Emengar has always astounded the village with her religious devotion. Her favorite activities are faith, hope, and charity. But her virtue of patience seems to be running thin: during the long, hot summer days in church, she has taken to throwing books at the boys who talk and fidget! She came to see you at the beginning of autumn, feeling weak, feverish, and dehydrated, and looking a little queasy.



Amicia Rotenhering

Date of birth: August 28, 1310

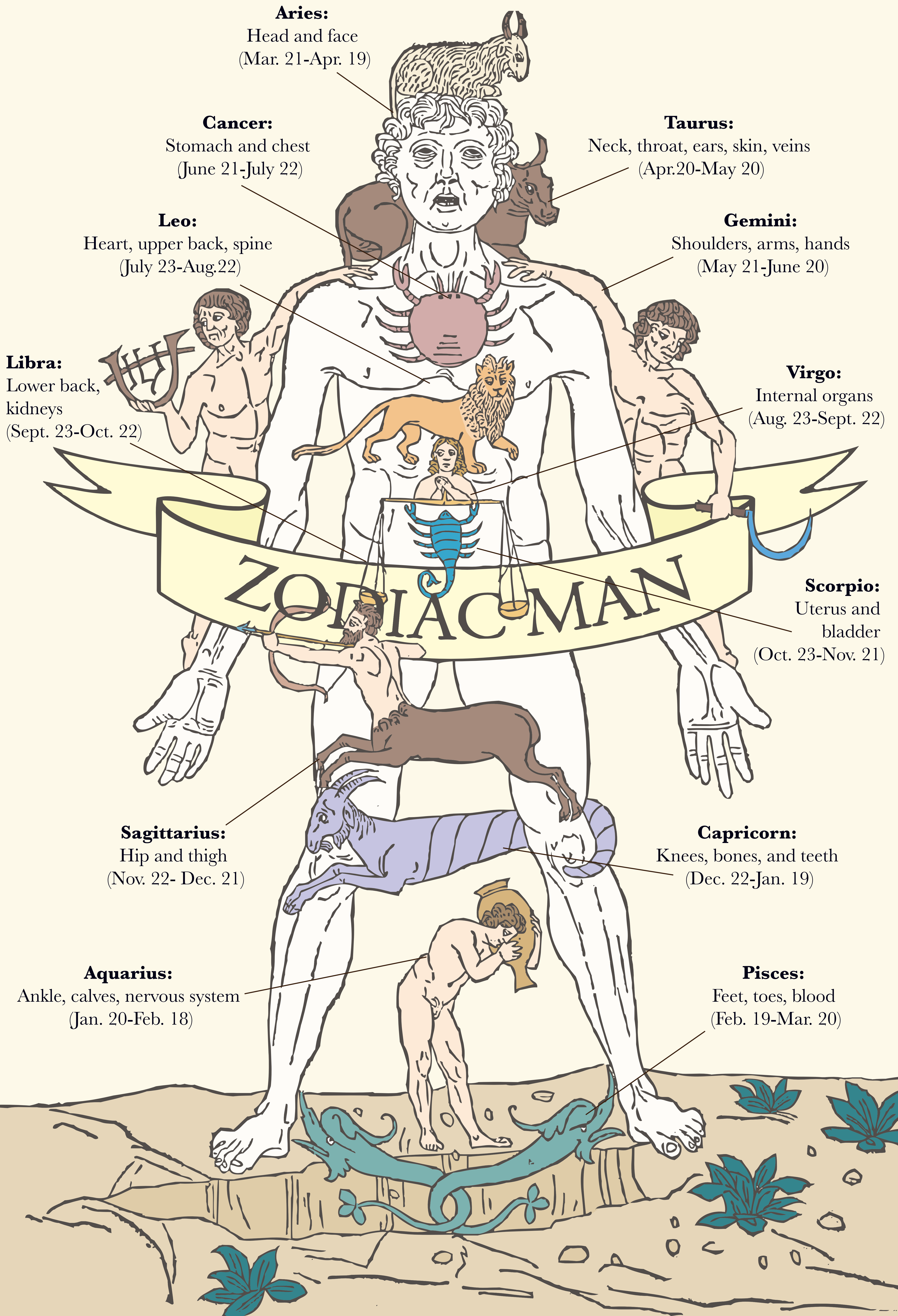
Amicia is a well-liked fishmonger, who sings morning and evening about her lovely fish to attract clients. She is a new mother of twins, Vicentius and Demetrius. Her normal, happy-go-lucky life has been much more hectic ever since her little bundles of joy arrived! Since then, she has been complaining of feeling feverish, sweating, and nosebleeds. She came to see you mid-June to clear her to get back to work.



Bonnefoy l'Anglois

Date of birth: April 2, 1310

Bonnefoy recently arrived in your village as an itinerant laborer. Nobody's quite sure where he came from! He came from afar, walking a very long distance during the worst snowfalls of the year. Since he arrived, he's been experiencing cold sweats and headaches so severe that he sometimes faints. When you meet him just after Groundhog's Day, you notice that his eyes are watery and his nose is runny. He implores you to fix him so that he won't scare off potential employers anymore!



Aries:
Head and face
(Mar. 21-Apr. 19)

Cancer:
Stomach and chest
(June 21-July 22)

Taurus:
Neck, throat, ears, skin, veins
(Apr.20-May 20)

Leo:
Heart, upper back, spine
(July 23-Aug.22)

Gemini:
Shoulders, arms, hands
(May 21-June 20)

Libra:
Lower back,
kidneys
(Sept. 23-Oct. 22)

Virgo:
Internal organs
(Aug. 23-Sept. 22)

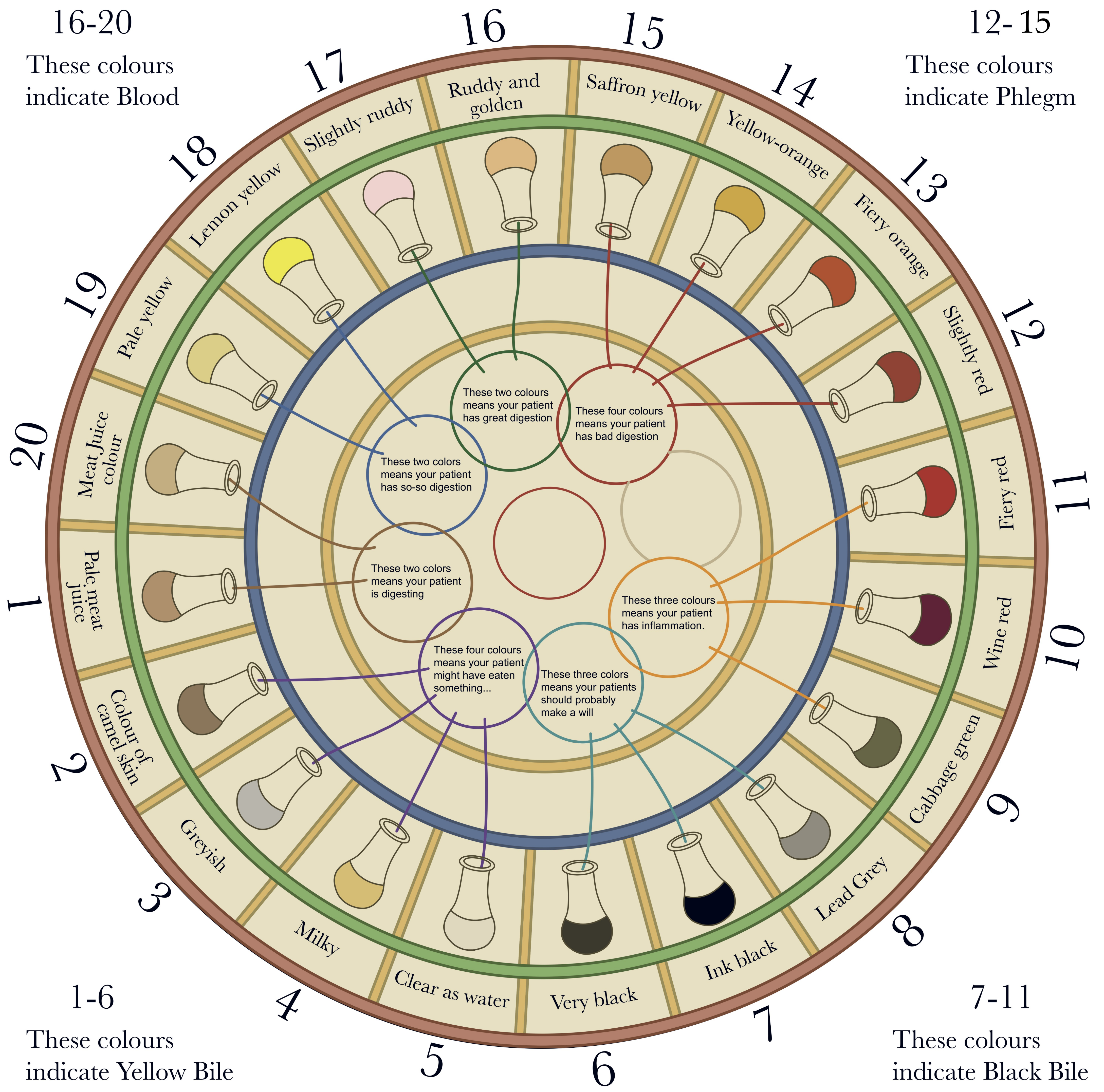
Scorpio:
Uterus and
bladder
(Oct. 23-Nov. 21)

Sagittarius:
Hip and thigh
(Nov. 22- Dec. 21)

Capricorn:
Knees, bones, and teeth
(Dec. 22-Jan. 19)

Aquarius:
Ankle, calves, nervous system
(Jan. 20-Feb. 18)

Pisces:
Feet, toes, blood
(Feb. 19-Mar. 20)



Sints for activity leaders

Baron Leofrick von Turpentyn

The Baron is normally phlegmatic (cold and wet); he's a Taurus, which is why he's having issues with his throat and ears; right now, he's having a bout of melancholy! That means he's got too much black bile in his system. Could be because it's cold outside (in December), could be because he's getting old; he needs to be heated up! Don't make him run around outside though—December also means it's Capricorn season, which means he could have issues with his knees!

Dame Emengar la Béguine

Dame Emengar is a Cancer, which means she might have problems with her stomach and chest. She probably has more of a choleric personality, because she's so passionate, but her recent irritable behavior indicates that she might have too much yellow bile! Crosscheck this with her milky urine for a diagnosis. Perhaps the summer heat has brought on this excess of bile, or perhaps she ate some rotten food, which caused her to have a fever and her body to produce excess yellow bile. Find a way to get the bad humor out! Then find a way to boost her cold and wet humors.

Amicia Rotenheryng

Amicia seems to be a pretty sanguine, happy person. But it sounds like pregnancy didn't really agree with her. As a Virgo, her internal organs are prone to problems. It sounds like she has an excess of blood that is heating her up and making her body too moist—so much so that the blood is trying to come out all by itself through her nose! Find a way to get that excess blood out! But make sure you don't try any treatments involving veins or arteries in the arms or shoulders—that could be dangerous this time of year.

Bonnefoy l'Anglois

Bonnefoy is probably from England, hence his last name! But that's beside the point. As an Aries, he is susceptible in his head, which is why he's having problems with his eyes and nose. His weeks of cold, wet wandering probably increased his level of phlegm dangerously, which has given him a terrible head cold with accompanying headaches. This is probably exacerbated under the sign of Aquarius because his nervous system (and thus, brain) has been affected. Find a way to heat him up and let off the excess moisture STAT. And be careful—he sounds delicate!

Omnibus has litteras lecturis salutem dicit

Auctoritate curatorum nobis commissa
admisimus hic discipulus ad gradum

Magister **M**edicinae **M**edievalis

Cuius rei testimonio scripsimus hunc
die mensis _____ anno _____