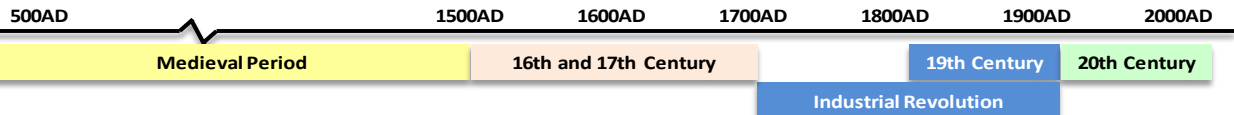


Knowledge Map: Treatment of Illness and Disease

Summary: This section of the medicine topic considers the treatment of illness and disease and whether they have changed over time. The time periods examined are the medieval period, the 18th and 19th centuries (Industrial Revolution), and the 20th and 21st centuries.



Medieval Period

Summary

The period is marked by a lack of medical knowledge which means causes of illness and disease are misunderstood. This means that the treatments failed as they were never able to tackle what causes the disease.

Key Knowledge

1	Herbal Medicines	Used as remedies for various ailments. Ingredients included honey, plants, and herbs. We now know that some of these could actually treat infections but this was down to luck more than anything.
2	Barber-Surgeons	Otherwise known as medieval doctors; they had little or no training. Would pull teeth, set broken bones, and carry out blood-letting. They could treat physical conditions but were ineffective at treating illness or disease.
3	Leeches	Leeches have been used in medicine for over 2500 years. In the medieval period, people believed that leeches could remove impure blood and leave behind good/new blood.

16th and 17th Centuries (Early Modern Period)

Summary

This period is one that is similar to the medieval period in many ways because of a lack of understanding about what actually causes illness and disease. Therefore, attempts at treatment often failed. However, there was a growing belief in science - if only slightly - and a slightly different approach to looking at disease.

Key Knowledge

4	Ladies of the Manor	Ladies of the Manor played a role in healing in this period. Such people as Lady Johanna St John, ran a large household and also compiled 'recipe' books of cures.
5	New Ingredients	New ingredients from around the world were appearing from around the world and being used in cures. This included ingredients such as rhubarb, tobacco, and various new herbs were being used to treat ailments.
6	Growing Scientific Approach	During this period, scientific approaches to medicine such as observation, experimentation and recording results, began to grow. Also new ideas on how to deal with disease grew. There were studies into mental illness, known as 'melancholy' and more understanding of midwifery.

Key Words and Definitions

Leech	An aquatic worm with suckers at both ends. Most species are bloodsuckers.
Anaesthetic	A substance that induces insensitivity to pain.
Antiseptic	Preventing the growth of disease-causing microorganisms.
Sterilise	Make something free from bacteria or other living microorganisms.
Aseptic	Free from contamination
Radiation	Discharge of energy as electromagnetic waves or as moving sub-atomic particles.
Antibiotic	A medicine that inhibits the growth of or destroys microorganisms.
Transplant	Living tissue or organs implanted in another part of the body or in another body.
Cancer	A disease caused by an uncontrolled division of abnormal cells in a part of the body.
Thalidomide	A drug found to cause abnormalities in unborn children (usually loss of limbs).
Holistic	Treatment of the whole person taking into account mental and social factors.

18th and 19th Centuries (Industrial Revolution)

Summary

This period is one that is characterised by advances in the treatment of illness and diseases but also advances in the treatment of physical conditions, particularly in surgery. This was due to the advances in science and a growing understanding of what caused disease, making the treatments more effective.

Key Knowledge

7	James Simpson - Anaesthetics	In 1847, James Simpson used chloroform to reduce pain for women in childbirth. Prior to this, surgery was accompanied by pain. Patients were often subdued using alcohol or opiums.
8	James Simpson - Anaesthetics	However, the introduction of chloroform had a negative side effect. In some areas, surgeons had higher mortality rates as they attempted more complicated operations. Equally, improved anaesthetics did not improve infections which were common in surgery.
9	Joseph Lister - Antiseptics	Joseph Lister had a profound effect on surgery survival rates. He sterilised operating surgeries with carbolic acid, then surgical instruments, and then sterilised surgical dressings. He reduced the mortality rate in his theatre from 46% to 15% in just three years.
10	Aseptic Surgery	Following the development of antiseptics and their success, it soon became apparent that all surgery should be carried out in as sterile a condition as possible. Surgical theatres, equipment and clothing soon became completely sterile; this is aseptic surgery.

20th Century

Summary

This period is one that is characterised by advances in the treatment of illness and diseases but also advances in the treatment of physical conditions, particularly in surgery. This was due to the advances in science and a growing understanding of what caused disease, making the treatments more effective.

Key Knowledge

11	Marie Curie - Radiation	Curie discovered radium and polonium which would be used to destroy human tissue which opened a way to treat cancer. She also developed mobile x-ray units in the First World War. She would tragically die from exposure to radiation.
12	Alexander Fleming - Anti-Biotics	In 1928, Fleming discovered penicillin while studying influenza. He noticed that mould had developed on a set of culture dishes whilst trying to grow the staphylococci germ. The mould had created a bacteria-free circle around itself. Further experiments and Fleming named the active substance penicillin.
13	Florey and Chain - Anti-Biotics	Florey and Chain would take up Fleming's discovery and researched how penicillin could be used to stop infection. The drug was further developed during the Second World War where it saved many lives in 1944 and 1945. In 1955, Fleming, Florey and Chain would share the Nobel Prize in medicine.
14	Christian Barnard - Transplant Surgery	Transplants developed rapidly during the 20th century. In 1952, the first kidney transplant; in 1961 the first heart pacemaker was developed. In 1967, the first heart transplant took place. The patient survived only 18 days because the body rejected it - drugs are now used to counter this.
15	Advances in Cancer Treatment	Radiation therapy is still used to treat cancer but other methods have been developed, which includes chemotherapy. As a consequence, more and more cancers are being cured or controlled. Surgery is also used to remove cancerous growths.
16	Alternative Treatments	There are still some controversies regarding medicine. In the 1950s, a drug called Thalidomide was used to cure morning sickness in pregnant women but resulted in abnormalities in the babies such as missing limbs. Due to things like this some people use alternative, natural holistic medicines.