

History Paper 1: Medicine through Time and Medicine on the Western Front Revision Booklet

If you LEARN and REMEMBER this information you will be successful in your exam.

Exam Details

75 minutes

Medicine on the Western Front (World War I) and Medicine through Time

Question Types:

Medicine on the Western Front

1. Describe two features of... (4) – The exam paper shows how to set out your answer.
2. How useful are Sources A and B for an enquiry into...? (8) – 2 paragraphs
3. Study Source A. How could you follow up Source A to find out more about the problem of ...? (4) – The exam paper shows how to set out your answer.

Medicine through Time

1. Explain one way in which... (4) – 1 paragraph
2. Explain why... (12) – 3 paragraphs
3. Statement, how far do you agree (20) – 4 – 5 paragraphs and a conclusion.

If you LEARN and REMEMBER this information you will be successful in your exam.

Don't forget the Educake work which will also help you.

Helpful link

<https://www.bbc.co.uk/bitesize/topics/zppr4xs>

You only need to look at the pages that relate to the topics in this revision guide.

Weapons of World War I

| Weapon | Description | Wounds caused by this weapon |
|---------------|--|---|
| Rifles | <p>Older weapons had to be loaded bullet by bullet so they were slow to use. These rifles now had a cartridge that contained at least 6 bullets so they could fire faster.</p> <p>Bullets were more pointed so went deeper into the body</p> | <p>Bullet wounds Head wounds were particularly common due to snipers. After 1916 soldiers were issued with steel helmets but this was 2 years into the war.</p> <p>When the soldiers attacked the enemy there was no protection. There weren't any bullet proof vests.</p> <p>Infection Trench warfare was a very dirty business. The trenches were very muddy and soldiers clothing was often covered in mud, animal and human excrement and blood from the soldiers themselves or others. This often found its way into wounds leading to severe infections that could kill. Antibiotics hadn't been discovered by this time so many soldiers survived their initial wounds only to die later from infection.</p> |
| Machine guns | Could fire 500 rounds per minute (9 per second) | <p>Bullet wounds (see above) Infection (see above)</p> |
| Artillery | <p>Fired explosive shells over huge distances (the British had an artillery gun that could fire a shell that weighed as much as a car 12 miles!)</p> <p>Some shells exploded in the air spraying shrapnel which ripped soldiers apart. Others exploded when they hit the ground.</p> | <p>Shrapnel wounds – If you weren't instantly killed you would be at risk of death due to infection and blood-loss.</p> <p>Infection (see above)</p> <p>Limbs amputated or needing to be amputated</p> <p>Facial injuries such as noses and jaws being blown off as well as losing one or both eyes.</p> |
| Shrapnel | This was metal (often metal ball-bearings) that was blown out of the exploding shells which often exploded in the air. When they hit a soldier they would carry the muddy clothing he was wearing into the wound causing infection. | <ul style="list-style-type: none"> • Shrapnel wounds (see above) • Infection (see above) • Limbs amputated or needing to be amputated • Facial injuries such as noses and jaws being blown off as well as losing one or both eyes. |

List all the **weapons** associated with the injuries listed below. Use the table to help you.

Bullet wounds –

Infection -

Amputation of limbs-

Facial injuries -

Why was infection such a problem?

Why was shrapnel such a danger?

What was introduced in 1916 that reduced the number of head wounds?

Evacuating soldiers from the battlefield

Evacuating soldiers from the battlefield was very difficult because of the terrain. The mud and shell holes made carrying a man on a stretcher almost impossible. It was so hard that a stretcher team of 4 men could only evacuate 3 - 4 men over a 12-hour period. If you were injured and needed help, you had to get yourself off the battlefield rather than waiting to be rescued.



The chain of evacuation

There were four main stages of the chain of evacuation but the order of these stages was not necessarily the same for each casualty. If you were severely injured you could miss out some of these stages.

1. RAP: Regimental Aid Post

- Located within 200 metres of the frontline
- Aimed to get as many men back to the front as quickly as possible.
- They could not deal with serious injuries.



2. Dressing stations (ADS and MDS)

- There was usually an Advanced Dressing Station (ADS) within 400m of the RAP and a Main Dressing Station (MDS) about half a mile away, usually in tents or bunker to provide protection from enemy shelling. They could only look after men for a week
- They were staffed by 10 medical officers, stretcher bearers and nurses too.



3. Casualty Clearing Stations (CCS)

- Around 7 miles away from the front, close to the railway
- They had several doctors, many nurses, operating theatres, x ray machines and wards.
- They could deal with up to 1000 casualties at a time.
- They could become overloaded with casualties. On the first day of the Battle of the Somme over 60,000 British soldiers were killed or wounded. The CCS' didn't have the capacity to deal with so many terrible injuries.



4. Base Hospitals

- Situated near the ports on the French/Belgian coast on train lines and canal rivers
- They had operating theatres, x ray machines, laboratories and even specialist centres for treating gas poisoning and head wounds. These specialist wards allowed doctors to become experts in treatment of particular wounds.
- From here, most patients were sent back to England



The Chain of Evacuation.

1. Look at the information on the previous page. Where would you be treated for these injuries. Your choices are: a RAP, the ADS / MDS, CCS or base hospital

- Limb blown off
- Twisted ankle
- Minor bullet wound
- Brain injury
- **Possible** broken bone
- Injury that required an operation

2. Where could you be treated by a nurse?

3. Write these stages of the chain of evacuation in the correct order (Base Hospital, ADS / MDS, RAP, CCS) **and 1 sentence about each**

4. Where could you get an x-ray?

5. What do these numbers relate to? You **MUST** include which part of the Chain of Evacuation it is linked to.

200

700

7

Types of Sources

One of your questions will ask you how you could follow-up a source to find more information about a particular topic. An example would be finding out more about how soldiers were evacuated from the battlefield.

Examples of sources are shown below

For your exam you will need to remember these sources and what information they would give you.

| Types of Source | What they would tell you |
|---|---|
| Hospital records | <ul style="list-style-type: none">• Number of casualties (dead and injured)• The injuries they sustained• Treatments used• Success or failure of these treatments• How medicines were stored |
| Medical articles by doctors or nurses who worked in the war | <ul style="list-style-type: none">• Their experience in the hospital they worked in or of the front line• Injuries• Deaths of soldiers in their hospital ONLY.• Medical treatments used• Success or failure of treatments |
| Personal accounts of medical treatments by soldiers, doctors. | <ul style="list-style-type: none">• Their experience of care either at the frontline or in the hospitals• The actions of doctors / nurses / stretcher bearers• Impact of treatments on them or fellow soldiers• Treatment received by soldiers on the frontline.• Treatments received by soldiers in hospitals. |

Which source(s) would you use find out about the following:



| | Sources |
|--------------------|---------|
| Number of injured? | |
| Treatments? | |
| Numbers of deaths? | |

Task

Can you remember the following as you need to know this for your exam?

| Question | Attempt 1 | Attempt 2 | Attempt 3 |
|---|-----------|-----------|-----------|
| What were the main weapons of WWI? | | | |
| What injuries did these weapons cause? | | | |
| Why was it difficult to evacuate the wounded? | | | |
| What were the 4 stages of evacuation? | | | |
| Stage 1 – 2 facts | | | |
| Stage 2 – 2 facts | | | |
| Stage 3 -2 facts | | | |
| Stage 4 – 2 facts | | | |

Treatments during World War I

| <u>Problem</u> | <u>Details</u> | <u>Progress</u> | <u>What you need to know for your exam</u> |
|----------------|---|---|---|
| Blood loss | <ul style="list-style-type: none"> In 1901 Karl Landsteiner had discovered that there were different blood groups making blood transfusions possible. Blood couldn't be stored so a transfusion was directly from one person to another.  | <ul style="list-style-type: none"> Richard Lewisohn (USA) discovered that adding sodium-citrate to blood prevented it clotting so blood could now be stored but not for long. It was then discovered that blood could be stored in refrigerated conditions and then that adding a citrate glucose solution to the blood allowed it to be stored for several days rather than a few hours. Geoffrey Keynes invented a portable machine for storing blood. Blood could now be kept near the front line where it was needed. The first blood depot (a store of blood ready to be used) was created before the Battle of Cambrai in 1917. Stocks of blood group O were collected and held ready for use as soon as the battle began. Group O had been chosen because it can be given to everyone safely, even if a person has a different blood group. | <p>Richard Lewisohn –</p> <p>Citrate glucose solution-</p> <p>Geoffrey Keynes –</p> <p>Battle of Cambrai-</p> |
| Infection | <ul style="list-style-type: none"> During World War I, many soldiers suffered large wounds. Fragments of mud and clothing often got into the wound which led to infections, particularly gas gangrene. Surgeons returned to Lister's method of spraying the wound with carbolic acid to kill the infection but it wasn't effective and many soldiers died from infection. Remember, until Fleming discovered penicillin in 1928 there weren't any antibiotics. | <ul style="list-style-type: none"> Carrel and Dakin developed a method of putting antiseptics into wounds by putting tubes into the body (Carrel-Dakin method). These would constantly pump fresh antiseptic into the wound. This would either prevent infection or stop an infection spreading. This constant supply of antiseptic helped kill the infection and led to fewer amputations but wasn't completely effective. Surgeons then started to use a new technique called debridement. This involved not only remove the bullet / shrapnel but also cutting away any tissue around the wound. This helped to remove infection.  | <p>Infection in deep wounds-</p> <p>Carrel-Dakin method involved-</p> <p>Debridement was-</p> |

Why was there so little change in medicine in the medieval period? A Summary.

| Factors | How does the factor explain continuity (things staying the same and not progressing) in medicine? |
|--|--|
| The Church | <p>The Church said that God sent disease. This held back medical progress because _____</p> <p>_____</p> <p>Galen made some mistakes about the human body but the Church said that he was right. Questioning Galen meant going against God. This held back medical progress because _____</p> <p>_____</p> |
| Education | <p>Doctors learned that Galen and Hippocrates were correct. All you had to do to be a good doctor was to learn their work. You didn't have to find things out for yourself. This held back medical progress because _____</p> <p>_____</p> <p>The Church controlled education, including the training of physicians (doctors). There were only 100 physicians in England in the year 1300 and all had trained at universities controlled by the Church. This held back medical progress because _____</p> <p>_____</p> <p>Doctors learnt about the anatomy by watching (not doing) a human dissection as doctor were far too important to do this. A professor would read Galen's book and an uneducated barber-surgeon would dissect a body. The dissection was done to prove Galen was right, not to see if he was right. This meant medicine didn't progress because _____</p> <p>_____</p> |
| Attitudes (respect for tradition) | <p>Doctors did not believe in questioning existing ideas. Their training had taught them that there was no need to question as Galen and Hippocrates were always correct. This held back medical progress because _____</p> <p>_____</p> <p>In the 13th century the English scientist Roger Bacon said that doctors should carry out their own research in order to come up with new ideas. Church leaders made sure he was sent to prison for saying this. This held back medical progress because _____</p> <p>_____</p> |
| Communication | <p>Books were made by copying by hand, often by monks who worked for the Church. These books were in short supply and were expensive. This held back medical progress held back medical progress because _____</p> <p>_____</p> |
| Individuals | <p>People in the Medieval period believed Hippocrates and Galen were correct. This was because some of their ideas actually worked. One example was that when people were ill they did seem to need to lose one of the Four Humours. People with colds sneezed Phlegm, sick people vomited yellow bile, and sometimes ill people would get nose bleeds. This proved that both Galen and Hippocrates were correct. This held back medical progress because _____</p> <p>_____</p> |
| Government | <p>The King's government did not spend a lot of money improving medicine or setting up schools, hospitals or universities. This held back medical progress because _____</p> <p>_____</p> |

Beliefs about the cause of disease 1250-1900 – What changed and what didn't?

| The Medieval Period 1250 - 1500 | The Renaissance 1500-1700 | The early Modern Period 1700-1900 |
|---|--|---|
| Miasma – People would smell sweet smelling herbs to prevent disease. | Miasma – People would burn barrels of tar to mask (cover) the bad smells. They believed this would prevent them from catching disease. | Miasma. This belief was replaced by germ theory developed by Louis Pasteur in 1861. By 1864 this theory was accepted as fact. |
| God – People would pray to God for forgiveness Flagellants would walk the streets whipping themselves so God would see they were sorry for their sins and spare them from the Black Death. | God – People would pray to God in the hope that he would spare them from the Plague. | God. This belief was replaced by germ theory developed by Louis Pasteur in 1861. By 1864 this theory was accepted as fact. |
| An imbalance in the Four Humours which was based on the ideas of Hippocrates and Galen over 100 years earlier. Bleeding and purging patients remained popular treatments. | An imbalance in the Four Humours which was based on the ideas of Hippocrates and Galen over 100 years earlier. Bleeding and purging patients remained popular treatments even after William Harvey had proven that bleeding would not work in 1628. Even in the 1660s King Charles II of England was bled as part of his treatment. | This belief was replaced by germ theory developed by Louis Pasteur in 1861. By 1864 this theory was accepted as fact. |
| Natural ideas such as coming into contact with sick people | People still believed that coming into contact with sick people could spread disease but a new belief was that the disease was caused by cats and dogs. This was seen during the plague of 1666 in London when 40,000 dogs and 200,000 cats were killed as it was believed they spread the plague | This belief was proven germ theory developed by Louis Pasteur in 1861. By 1864 this theory was accepted as fact. It was now understood why coming into contact with sick people made you ill. |
| Galen and Hippocrates' ideas about the cause of disease remained popular | New discoveries by people such as Vesalius and Harvey were focussed on anatomy, they had no impact on beliefs about the cause of disease. Vesalius proved that Galen made over 200 anatomical errors and Harvey made several discoveries about the role of the heart but neither changed views on the cause of disease. | |
| The alignment of the planets (astrology) was believed to make you ill. It was believed that the location of the planets related to where the illness was. For example the planet of Mars indicated the illness was related to the nerves. | Thomas Sydenham wrote a book called This documented different types of illness and possible treatments. This was definitely a step in the right direction and showed some improvements in ideas about the cause of disease but didn't result in any significant changes. He did discover that Scarlett Fever was a different disease to Measles but this didn't lead discover how either disease was caused. | |

Beliefs about the Cause of Disease

Task

1. Match the beliefs about the cause of disease to the correct time period.

Some can be more than one time period

- Miasma – **Medieval 1250-1500 / Renaissance 1500-1700 / Early Modern 1700-1900**
- God - **Medieval 1250-1500 / Renaissance 1500-1700 / Early Modern 1700-1900**
- Alignment of the planets - **Medieval 1250-1500 / Renaissance 1500-1700 / Early Modern 1700-1900**
- Dogs and cats - **Medieval 1250-1500 / Renaissance 1500-1700 / Early Modern 1700-1900**
- Germs - **Medieval 1250-1500 / Renaissance 1500-1700 / Early Modern 1700-1900**
- An imbalance in the four humours - **Medieval 1250-1500 / Renaissance 1500-1700 / Early Modern 1700-1900**

2. Look at the table on the previous page and prove these statements are correct

There was NOT any progress in the beliefs about the cause of disease between the Medieval and Renaissance Periods.

There WAS progress in the beliefs about the cause of disease between the Renaissance and Early Modern Periods.

Was there progress between the Renaissance and Medieval Periods?

Task

Colour code the facts about the Renaissance into these categories:

Progress (getting better)

Continuities (staying the same)

| | | |
|---|--|---|
| <p>Just like the Medieval Period physicians were trained in universities but were very expensive. Most people preferred more familiar and cheaper remedies from barber-surgeons or apothecaries.</p> | <p>Some treatments used during the Renaissance were still based on magic. This could have been because people were desperate for help</p> | <p>Doctors no longer believed their job was to accept old ideas many now believed they should challenge them and try to improve medicine. There was a new desire to find new treatments and improve medical care</p> |
| <p>During the Medieval Period most hospitals would not accept the sick as they would spread disease. However, during the Renaissance this changed and some even specialised in a single disease such as leprosy. These were known as 'pest houses'</p> | <p>Physicians still believed that the Theory of the Four Humours caused disease and therefore used bleeding and purging as treatments. This was even after the work of Harvey had proven that bleeding didn't help!</p> | <p>New organisations such as The Royal Society were set up. This was set up in 1660 and was where scientists went to discuss new ideas and discoveries. It had a journal called 'Philosophical Transactions' to spread new knowledge.</p> |
| <p>Most hospitals had been run by the Church and treatments were provided by monks and nuns. However, some hospitals began to be run by local councils and charities rather than the Church. An example is St Bartholomew's in London which still exists today. By the 1660s it had 12 wards and up to 300 patients, looked after by three physicians and three surgeons, fifteen nursing sisters rather than monks and nuns.</p> | <p>Supernatural cures were still believed by many people. Between 1660 and 1682 over 92,000 people went to see King Charles II of England believing that if he touched them, they would be cured from scrofula, a skin disease known as 'The King's Evil'. The King was God's representative on earth so being touched by the King was as close as you could get to being touched by God.</p> | <p>Thanks to the development of new technology, such as the printing press, new ideas could spread throughout Europe much faster than ever before. As a result, knowledge progressed but, as they still didn't know the true cause of disease, treatments did not.</p> |
| <p>Despite improvements in knowledge there was very little improvement in treatments. People still didn't know that germs caused disease so they couldn't develop effective treatments.</p> | <p>Governments still didn't spend money on improving the health of the population. The only time they did this is if there was an outbreak of disease such as the Great Plague 1665-6</p> | |
| <p>Vesalius proved that Galen had made over 200 mistakes. He also wrote 'The Fabric of the Human Body', which was published in 1543. It was the first printed and mass-produced medical book. Additionally, he encouraged others to check the work of Galen BUT many people continued to believe Galen. Vesalius' book was just about human anatomy and, even though it was brilliant, didn't actually make people healthier or lead to new treatments or save any lives.</p> | <p>Williams Harvey discovered that the blood only flows in one direction, that there is a set amount of blood in the body and blood letting was a useless treatment. His book was called 'An Anatomical Treatise on the Motion of the Heart' and was published in 1628. It took 50 years for his work to be accepted. Harvey's work had no impact at all at the time as it couldn't really be used to save lives. It was actually only in 1901 that blood groups were discovered and blood transfusions could be carried out successfully.</p> | <p>Thomas Sydenham was known as the 'English Hippocrates'. He believed that every disease was different and that it was important to identify the disease before treating a patient. He wrote detailed descriptions of many illnesses including the very first description of scarlet fever. His book was called 'Observationes Medicae' and was published in 1676. His work didn't save any lives.</p> |

Why was there progress during the Renaissance Period?



- 1. Communication** – In the 1440s the printing press was developed by Johannes Gutenberg. This was important because:
 - For the first time each book didn't have to be written by hand so there were more copies for people to read. As a result, medical knowledge could spread much faster than before.
 - The Church no longer controlled the books that people could read!
 - Exact copies of books were produced rather than books which were copied by hand and which could contain mistakes made by the copyists.
- 2. Science and technology** – The microscope was invented in the 1600s. This was important because:
 - It allowed people to see things not visible to the naked eye BUT they were not, however, powerful enough to see germs.
 - It allowed people to prove that Vesalius (no Galen) was correct and there were no holes in the septum.
- 3. Government** – The government made much more of an effort to keep towns clean. People who lived there were often ordered to clean the streets outside their homes in an attempt to keep the city clean. However, there was no public health system and disease continued to spread due to the dirt. Overcrowding was common which again meant that disease could easily spread. The government didn't spend much money at all on caring for the sick or preventing illness.
- 4. Religion** – The Church opposed the work of Vesalius and continued to say that Galen was correct. As a result, it took a long time for Vesalius' work to be accepted BUT he wasn't thrown in prison for questioning the old ideas as the Church wasn't powerful enough to do this. Kings and queens (the government) now made these decisions.
- 5. Attitudes: seeking improvement** – The Renaissance was a period in which people WANTED to learn new ideas and make discoveries. This was important because:
 - Accepting old ideas was now not enough. People believed they should be checked and improved on.
 - There was a real desire to learn and make progress.
 - The Royal Society was set up in 1662 by scientists to discuss new scientific ideas. It met weekly. In 1665 it published a journal called 'Philosophical Transactions' which allowed doctors and scientists to share their ideas relatively quickly allowing progress to be made.
- 6. Individuals** –
 - Vesalius encouraged others to question the old ideas and make new discoveries of their own. As he proved Galen had made over 200 mistakes
 - William Harvey discovered the circulation of the blood and that bloodletting wouldn't work.
 - Thomas Sydenham was interested in learning from experience rather than learning from books. This allowed new discoveries to be made.

Attitudes: Respect for tradition – Galen's work was still believed and respected by many, many people and new ideas took a long time to be accepted. Harvey proved that bloodletting wouldn't work but King Charles II of England was treated by this method over 50 years after Harvey's work was published.

Colour code the information above showing evidence for **progress** and evidence **against progress** during the Renaissance period.

Prevention of Disease

Task

1. Classify the facts by time period

The Medieval Period: 1250-1500

The Renaissance Period: 1500-1700

The Early Modern Period: 1700-1900

The Modern Period 1900 - today

- Louis Pasteur proved that germs cause decay and then proved that germs cause disease in 1861. People accepted this in 1864 and the belief in miasma began to decline. As a result, pressure was placed on the government to improve public health
- Robert Koch took Pasteur's work even further and was able to identify which germs caused certain diseases. As a result, vaccines, such as the vaccine for rabies could be developed.
- During the period 1250-1700 many people believed that prayer was an effective way of preventing disease
- When the Black Death hit in 1348-1349 the king ordered the streets to be cleaned as many people believed that miasma was the cause.
- Pest houses that treated diseases such as leprosy were set up for the first time in the period 1250-1500. These were hospitals that specialised in the treatment of certain diseases. Their treatments didn't work but they stopped the disease from spreading to healthy people.
- Vaccines were introduced with the first being Jenner's vaccination for smallpox in 1799. The government made Jenner's vaccination free for all infants in 1840 and compulsory in 1852. This was more effective than inoculation which had been used before.
- In the modern period infectious people are advised to stay at home and not mix with others, such as during the covid pandemic. In some cases, if the disease is particularly dangerous, sick people will be isolated in hospitals.
- In the modern period there are very few infectious diseases that we cannot treat. In many cases antibiotics can be used as a treatment. These have only existed during the modern period.
- New vaccines continue to be developed. The covid vaccine was developed using a completely new method and is regularly updated as the virus changes.
- During the Renaissance period, sick people would be expected to isolate themselves in their own homes. During the Great Plague watchmen were employed to guard the homes of sick people to make sure they didn't leave.
- The importance of clean water became clear after the work of John Snow in Broad Street in 1854 but little changed at that time. Most people didn't believe him and the government didn't feel its role was to prevent illness or to treat ill people. This was a belief called 'laissez-faire' which means to leave alone.
- In the 1860s a new sewerage system was built in London by Joseph Bazalgette. This was ordered and paid for by the government and made cholera outbreaks much rarer
- The Second Public Health Act of 1875 was compulsory and finally ensured clean water was provided, sewers were built and street lighting was provided.
- In the 2000s the government has passed many anti-smoking laws. In 2003 tobacco could no longer be advertised on television and in 2014 it became illegal to smoke in a car with someone below 18 in it. These actions have helped prevent lung cancer for many thousands of people
- In 1953 Francis Crick and James Watson discovered the structure of DNA. This has helped prevent certain genetic illnesses such as lung cancer

Hospital care.

| | <u>The Medieval Period 1250-1500</u> | <u>The Renaissance Period 1500-1700</u> | <u>The Early Modern Period 1700-1900</u> |
|-----------|---|---|--|
| Hospitals | <ul style="list-style-type: none"> • Set up and controlled by the Church • Care provided by monks and nuns without any medical training • Often places where travellers and pilgrims stayed on their journeys • Wouldn't accept the sick in case they spread a disease • They were warm and clean. • Patients were given fresh food and plenty of rest. • Their number increased during this period of time. • An example is St Bartholomew's in London which today is one of the most famous hospitals in the world. | <ul style="list-style-type: none"> • Started to take in the sick • Care provided by doctor and surgeons who did have some medical training. • Doctors trained on the wards so they could gain experience as they trained. An example is St Bartholomew's in London which, by the 1660s had 12 wards, 3 physicians and 3 surgeons. • There were nurses but they were NOT trained. They simply tried to do what the doctors told them. • Most were run by the Church BUT some were now run by town councils or charities. • | <ul style="list-style-type: none"> • In 1853 Great Britain went to war with Russia in an area called the Crimea • The British government asked Florence Nightingale to go to this hospital to improve the care of wounded British soldiers in 1854. • She reduced the death rate in this hospital from 42% to only 2%. • She did this by cleaning the hospital, getting proper medical supplies, introducing trained, hardworking nurses and focussing on hygiene and quality care. • She returned to the UK and wrote a book called '<i>Notes on Nursing</i>' in 1859 which set out a clear list of rules for nurses to follow and described her methods. Nurses soon had to read this book. • She set up the Nightingale School of Nursing in 1860 which trained nurses and soon other training schools were set up. • In 1919 the government passed the Registration of Nurses Act which ensured ALL nurses were trained in exactly the same way • Care and treatment was now carried out by trained nurses |

Task

What are the similarities between hospital CARE in the Medieval Period and Renaissance Period?

What are the differences between hospital CARE in the Medieval Period and Renaissance Period?

Why was the CARE in hospitals better in the Early Modern Period than the Renaissance Period?

Treatment of disease 1250-present day

Task

If these are the beliefs about the causes of disease, how did people attempt to treat them in different time periods?

- Miasma –
- God –
- Alignment of the planets –
- Dogs and cats –
- Germs –
- An imbalance in the four humours –

Surgery 1700-1900

Task

Fill in the gaps using the words below

Anaesthetic, more, unconscious, Lister, acid, germs, carbolic, preventing, mortality (the number of people dying), infection, loss, Simpson, quickly,

| <u>Surgery 1700-1900</u> | <u>Surgery 1900-present</u> |
|--|--|
| <ul style="list-style-type: none"> • 1847 – James Young _____ discovers that chloroform was an effective anaesthetic and it becomes widely used. <p>However, anaesthetics actually made surgery more dangerous for a number of reasons:</p> <ol style="list-style-type: none"> 1. It wasn't very easy to give an an _____ to people as there wasn't a good way of working out how much each person needed. As a result, people died. 2. The young and fit were _____ at risk of dying as they tended to take in bigger gasps of air as the chloroform was held over their mouths and therefore overdosed 3. Surgeons took their time now the patients were un_____. As a result more patients died of blood _____ than ever before 4. Infection remained a problem that hadn't been solved and continued to kill many, many patients. <p>Surgery improved when antiseptics were introduced</p> <ul style="list-style-type: none"> • 1867 – Joseph _____ read Pasteur's work on germ theory and wondered if germs falling into wounds were actually causing i_____. He decided to use carbolic _____ during his next operation to try to kill the _____ on his hands and the surgical instruments. It worked and the death rate during his operations dropped from 46% to only 15%. <p>Surgery further improved thanks to William Halsted:</p> <ul style="list-style-type: none"> • In 1889 he used rubber gloves during an operation as his nurse was complaining that the c_____ acid was making her hands dry and cracked. He noticed that this patient recovered more q_____ after doing this than his other patients. He realised that the gloves were _____ the germs on his hands being transferred into the wound • He later used hats, masks and gowns, all of which further reduced m_____. This type of surgery that aimed to prevent infection is known as aseptic surgery. <p>X-rays were discovered in 1895 and x-ray machines were developed the same year. Surgery could now be more precise</p> | <p>Blood transfusions</p> <ul style="list-style-type: none"> • In 1901 Karl Landsteiner discovered that different people had different blood groups and that you had to give someone the same blood group if a blood transfusion was to successfully work. • However, blood transfusion still involved a direct transfer of blood from one person to the other as the blood clotted if it was exposed to the air. • During World War I scientists discovered how to prevent blood from clotting by adding something called sodium citrate. • They also worked out how to store blood for long periods without it going off. • This meant longer more complicated surgery could take place such as transplants. <p>Transplants</p> <ul style="list-style-type: none"> • Kidney and heart transplants are almost taken for granted today but remain extremely complicated and dangerous. • The first heart transplant was carried out in 1967 by a surgeon called Christiaan Barnard in South Africa. • Since this first attempt many hundreds of these operations have been carried out and the survival rate is improving year by year. • Since then more ambitious transplants have been carried out including the first heart and lung transplant in 1982. • In the past 10 years transplant surgery has improved even further with the ability to carry out entire face transplants for severely injured people. <p>Micro-surgery</p> <ul style="list-style-type: none"> • With the development of small cameras and surgical instruments surgeons now only need to make small cuts in the body to perform surgery rather than large cuts. • This reduces the risk of infection and improves recovery time. |

Surgery

Task
How did each of these make surgery safer? **You must include at least one name and one date in your explanation**

Anaesthetics

Antiseptics

Aseptic surgery

X rays

Blood transfusion

Micro-surgery

I would sooner have an operation in the period _____ - _____ because
