**Q3) Similarity difference questions [4 marks]**

**Similarity**

Cause

* Explain one way in which ideas about the treatment of illness were similar in the 13th and 17th centuries
* Explain one way in which ideas about the cause of disease and illness were similar in the 14th and 17th centuries. 4 marks

Treatment

* Explain one way in which treatment of illness was similar in the 13th and 17th centuries.
* Explain one way in which medieval hospitals were similar to hospitals in the Renaissance way.

Other

* Explain one way in which people’s reactions to the Plague in Britain were similar in the 14th and seventeenth centuries

**Difference**

Cause

* Explain one way in which ideas about the cause of disease and illness were different in the twentieth century from ideas in the nineteenth century.​
* Explain one way in which peoples understanding of the causes of disease in Britain with different in the 19th and 20th centuries.

Treatment

* Explain one way in which ideas about the treatment of disease were different in the 17th century from ideas in the 13th century.
* Explain one way in which ideas about the treatment of illness changed between the 19th and 20th century
* Explain one way that hospitals in the 14th century were different to hospitals in the 20th century
* Explain one way in which hospital care in Britain was different in the 14th and 19th centuries.

Prevention

* Explain one way in which the prevention of disease and illness was different in the 19th and the 21st centuries.
* Explain one way in which government intervention changed in its dealing with Cholera in the 19th Century and its dealing with Lung Cancer in the 21st Century 4mark question

Other

* Explain one way in which reactions to the Black Death and the Great Plague were different.
* **Explain one way in which doctors training in Britain was different in the 14th and 17th Centuries**

**Q4, 5 and 6 [12 and 16 marks] by time period**

**Medieval Medicine**

**12 mark questions**

* Explain why there was continuity in ideas about the cause of disease during the period c1250-c1500.
	+ Role of Galen
	+ The church
* Explain why there was continuity in the treatment and prevention of illness in Medieval England.
* Explain why there was little change in the care provided by hospitals in the period c1250-c1500.
	+ Ideas in the Church
	+ Herbal remedies

**16 mark questions**

* “There was little progress in medicine during the medieval period because of the church.” How far do you agree? Explain your answer. (16 marks)
	+ Hippocrates
	+ The Church
* Hospital treatment in England in the period from 1250 to 1500 was very rare.” How far do you agree?
* “The ideas of Hippocrates and Galen continued to dominate medieval medicine in England.” How far do you agree?
* “The theory of the Four Humours was the main idea about the cause of disease in the Middle Ages.” How far do you agree?
	+ University training
	+ Galen’s ideas
* ‘Preventions and treatments for disease and illness in medieval England were based on religious ideas’. How far do you agree? You may use the following in your answer:
* The Church
* The Theory of Opposites

**Renaissance**

**12 mark questions**

* Explain why some changes took place in medical knowledge during the period c.1500 –c.1700.
* Explain why there were changes in the way ides about the causes of disease and illness were communicated in the period c1500-c1700.
	+ the printing press
	+ the Royal Society
* Explain why there was little change in methods of treating and preventing disease during the period c.1500-c.1700.
* Explain why there was continuity in the way disease was treated in the period c1500-c1700.
	+ the Great Plague
	+ attitudes in society
* Explain why the role of the Church in medicine decreased in importance in the years c.1250-c.1700. You may use the following in your answer:
* Medical training
* William Harvey
* Explain why there was continuity in the way disease and illness were prevented and treated in the period c.1250-c.1700. You may use the following in your answer:
* Great Plague
* Attitudes in society
* Explain why there was little change in the care provided by hospitals in the period c1250-c1500. You may use the following information in your answer:
* Ideas in the Church
* Herbal remedies
* Explain why some changes took place in medical knowledge during the Period c1500-1700
* The Royal Society
* Vesalius

**16 mark questions**

* “There was little progress in medicine in Britain during the Renaissance period.” How far do you agree?
	+ The work of William Harvey
	+ Bloodletting and purging
* “Vesalius’s work on anatomy was a major breakthrough in medical knowledge during the period 1500-1700” How far do you agree?
	+ Harvey
	+ The printing press
* “Harvey’s discovery of the circulation of the blood was a major breakthrough in medical knowledge during the period 1500-17000.” How far do you agree?
* “Individuals had the biggest impact on medical training the 16th and 17th centuries.” How far do you agree? You may use the following information in your answer:
	+ ● Vesalius
	+ ● the printing press

**Industrial**

**12 mark questions**

* Explain why there was rapid progress in approaches to preventing illness in Britain during the period c.1750-c.1900.
	+ government intervention
	+ vaccinations
* Explain why there was rapid change in surgical treatments in the period c1700-c1900.

● chloroform

● Joseph Lister

* Explain why the government increased its role in preventing disease and illness during the period c.1700-c.1900. You may use the following in your answer:
	+ Public Health Acts
	+ Cholera
* Explain why there was rapid change in the prevention of smallpox after 1798.

● inoculation

● the government

* Explain why there was rapid change in the prevention of smallpox in the period c1750-1900.
* Explain why there was so much opposition to Jenner’s vaccination against smallpox. You may use the following in your answer inoculation and the Royal Society.

**16 mark questions**

* “John Snow’s work on cholera was a turning point in the prevention of infectious diseases c1700-c1900.” How far do you agree?
	+ Jenner’s vaccination
	+ The Broad Street Pump
* There was complete change in ideas about the cause of disease and illness in the period c.1700-c.1900’. How far do you agree? You may use the following information in your answer:
* Germ Theory
* Robert Koch
* “Jenner’s vaccination against smallpox was a major breakthrough in the prevention of disease in Britain during the period c.1700-c.1900.” How far do you agree?
	+ Cowpox
	+ Cholera
* “There was rapid change in ideas about the causes of illness and disease in the period c1700-c1900.” How far do you agree?

● Spontaneous generation

● Louis Pasteur

* “Pasteur’s germ theory has been the most significant turning point in preventing disease and illness.” How far do you agree?
	+ Edward Jenner
	+ Robert Koch
* “Treatment of disease and care of the sick completely changed after c1800.” How far do you agree with this statement?
	+ magic bullets
	+ ● the NHS
* “There was no progress in understanding the cause of disease between 1250 and 1800.” How far do you agree?
* “Government action was the main reason there was improvements to treatment and care in hospitals in the 19th and 20th centuries.” How far do you agree?
* The role of science and technology was the main reason why diagnosis improved in the 18th and 19th century. How far do you agree?
* Scientific Revolution
* Florence Nightingale
* Edwin Chadwick’s Report was the main reason why public health in towns improved during the nineteenth century. Do you agree?
* The public health act 1875 was the most important factor affecting improvements in the prevention of disease in Britain during the period c1700-1900. How far do you agree
	+ Cholera
	+ Jenner’s vaccination against smallpox

**20th Century**

**12 mark questions**

* Explain why there have been changes in methods of treating illness during the twentieth century.
* Explain why there have been changes in methods of preventing illness during the twentieth century.
* Explain why there was rapid progress in disease prevention after c1900.
	+ The NHS
	+ DNA Testing

**16 mark questions**

* “The discovery of DNA was a major breakthrough in medicine during the twentieth century.” How far do you agree?
* “The development of penicillin was a major breakthrough in the treatment of illnesses during the twentieth century.” How far do you agree?
* Treatment of diseases and care of the sick completed changed after 1800. How far do you agree? You may use the following information in your answer:
	+ Magic bullets
	+ The NHS
* The main reason that penicillin was developed in the early twentieth century was because of the work of individuals’. How far do you agree? You may use the following information in your answer:
* Florey and Chain
* WW2

Example answers

**Explain one way in which ideas about treatment of disease were different in the fourteenth century from ideas in the 20th century.**

One way in which ideas about treatment of disease were different in the fourteenth century from ideas in the 20th century were that explanations for disease were religious rather than scientific. For example, in the 14th century, people believed that disease was a punishment from God and treatments included flagellation and prayer as a result. During the Black Death, the King ordered mass prayer services and priests would visit the sick to heal their sins. However, by the 20th Century, explanations had become scientific. For example, knowing that the cause of disease was bacteria, antibiotics were used to treat many diseases. By 1944, penicillin was being mass produced and it has been estimated that, during the Second World War, around 15 per cent of wounded British and American soldiers would have died without being given penicillin to fight their infections. Ideas about treatment had changed significantly because of germ theory (Louis Pasteur, 1861). Now that doctors knew that the cause of disease was bacteria, they were able to find more effective treatments.

**Explain one way in which ideas about the causes of disease was similar in the 14th and 17th centuries.**
In the 14th and 17th centuries disease was believed to have a rational cause, for example bad air (miasma). During the great plague, like the black death, people believe that bad here was caused by rotting waste and the movement of the planets they believed that this led to an imbalance of the four humours and so disease in the form of the plague.

**Explain one way in which peoples understanding of the causes of disease in Britain with different in the 19th and 20th centuries.**
The discovery of the structure of DNA in 1953 changed our understanding of how some diseases are caused by genetics, such as some cancers. This was different from understanding in the 19th century because, although people understood that some diseases will passed from parents to children, there was no understanding of how this happened and how treatments could be developed for diseases with a genetic cause.

**Explain one way in which ideas about the cause of disease and illness were different in the twentieth century from ideas in the nineteenth century.​**

During the beginning of the nineteenth century spontaneous generation was believed. This was the idea that microbes were the result of decay. However, by the twentieth century, it was clearly understood that germs were the cause of decay and illness. Magic bullets, such as Salvarsan 606, were discovered that would destroy the microbes that caused disease.​ During the late nineteenth century, it was understood that germs were the cause of disease and illness after Louis Pasteur discovered the Germ Theory. However, the Germ Theory did not explain all diseases. By the mid-twentieth century it was understood that some diseases are hereditary and exist in human DNA, for example cystic fibrosis. Crick and Watson discovered DNA in 1953.

**Explain one way in which ideas about the treatment of disease were different in the 17th Century from ideas in the 13th Century. (4 marks)**

In the 13th century, many people were treated either in their homes or in hospitals run by the church. In the 17th century, there had been the introduction of Pest Houses where people with infectious illnesses would be sent. These were important as regular hospitals would not accept anyone contagious so this allowed a place for these people to be treated without the risk of infecting their families.

**Explain one way in which hospital care in Britain was different in the 14th and 19th centuries.**Hospital care in the 14th century was very religious and care for sick people was based on prayer and rest rather than medical treatment. Hospital for a run by monks and nuns rather than medical workers because Jesus said his followers should care for the sick. In the 19th century this was different hospitals were now about treating ill people so they could recover. The 19th century care was based on scientific Understanding and professional training. Instead of being run by monks and nuns, 19th century hospital run by trained doctors and nurses

**Explain one way that hospitals in the 14th century were different to hospitals in the 20th century**

In the 14th century many English hospitals did not actually treat the sick. Many were run by the Church and the focus was on hospitality rather than curing or treating disease. Nuns cared for the sick by doing the washing, cleaning and bringing food to the patients and the priests and monks would lead prayers.​ This is different to the 20th Century. As the role of hospitals changed in the 20th century because English hospitals were no longer run by the church and the focus was on diagnosing and treating patients by using the expertise of doctors and nurses rather than taking care of spiritual needs.​

**Explain one way in which government intervention changed in its dealing with Cholera in the 19th Century and its dealing with Lung Cancer in the 21st Century 4mark question**​

In the 19th Century the government dealt with Cholera by passing laws such as the Public Health Act of 1875 which was aimed at cleaning up the streets. This is different to how the government dealt with Lung cancer as the government are directly interfering in peoples lives to get them to stop. Such as in 2007 they raised the smoking age and 2005 they banned all smoking advertising. They also made it illegal to smoke in cars in 2015

**Explain one way in which the prevention of disease and illness was different in the 19th and the 21st centuries.**

In the 19th century, the British government took a laissez-faire approach to prevent disease and illness, believing it was not its responsibility. However, by the 21st-century the British government no longer had a laissez-faire approach to the health it’s people and took action in preventing disease and illness by educating the people so that they could take control. This can be seen in the government encourage campaigns making the population aware of the dangers of smoking, binge drinking and drug use. It can also be seen in the change for life campaign.

**Explain one way in which doctors training in Britain was different in the 14th and 17th Centuries**

In the 14th century, Doctors trained by reading Galen because his theory of opposites and the theory of the four humours provided them with an understanding of how to treat people. One difference in the 17th century was the doctors training became more practical, they observed and examine patients, rather than just reading about your nurses in books, and it became more acceptable for medical students to dissect human bodies.

**Explain why there was progress in the prevention of illness in the years c1700-present. You may use the following in your answer:**

**•Public Health Act 1875**

**•healthy lifestyle campaigns**

**You must also use information of your own.[12]**

One reason why there was progress in the prevention of illness in the years c1700- the present is due to a greater understanding of the causes of disease. Based on his observations at the Broad Street pump in Soho, John Snow recommended that the government make massive improvements in the sewer systems of London. The government eventually agreed to this and work on new sewers began in 1860 and was completed in 1875. As a result of John Snow’s work and Pasteur’s Germ Theory, the 1875 Public Health Act made it compulsory for local councils to provide clean water and remove sewage, reducing the spread of water-borne diseases such as cholera. It also said there should be a public health officer to monitor the outbreak of disease. This led to even more progress in the prevention of disease as the last cholera epidemic in Britain was in 1866-67 and it had a lower mortality rate than previous epidemics. Thus, due to the passing of the Public Health Act, based on a better understanding of the causes of disease, great progress was made in the prevention of disease 1700-the present.

There was progress in the prevention of illness in the years c1700-present due to government intervention. Since 1700, the government has taken a more active role in preventing illness. When Jenner discovered a vaccination for smallpox, his new ideas were met with opposition from the church, inoculators and the Royal Society. However, parliament was in favour of vaccinations based on Jenner’s work and in 1840, they made inoculation a crime and in 1852 they made smallpox vaccination compulsory. By 1872, the government began to enforce this compulsory vaccination, showing progress in the prevention of illness as the vaccine has led to the eradication of smallpox as a disease. The government continued to be more responsible for public health as the 20th century progressed, providing isolation hospitals in the 1920s to help prevent the spread of TB. As more vaccinations became available such diptheria, measles, mumps, HPV the government supported their use, showing great progress in the prevention of illness. The government’s shift from a laissez-faire attitude to disease prevention to active participation, particularly in their support of vaccination, is why there was great progress in the prevention of illness in the years 1700-the present.

One reason that there has been progress in the prevention of disease c1700-the present is because of the greater communication of health risks to the general public. Healthy lifestyle campaigns in the 20th century have helped people to identify and tackle health risks. Campaigns such as those advertising the dangers of smoking, binge drinking, recreational drug use and unprotected sex have all helped to make progress in the prevention of disease. Initiatives encouraging healthy behaviour such as ‘5 a day’, Change4Life and Stoptober have all helped to prevent disease by promoting healthier lifestyles. In a similar way, the Royal Jennerian Society helped to promote vaccination in the early 19th century as it promoted the work of Jenner and smallpox vaccinations over the work of inoculators. Charities have also contributed to healthy lifestyle campaigns in the 20th century, for example the British Heard Foundation. They create adverts encouraging people to protect their heart by giving up smoking, eating less fat, and exercising. In this way, there has been progress in the prevention of illness as people are made more aware of the impact their lifestyle can have on their health and are encouraged to change it in order to prevent illness.

 **‘There was little progress in understanding the cause of disease in the years c1250-c1700.’ How far do you agree? Explain your answer. You may use the following in your answer:**

**•the Great Plague in London, 1665**

**•Thomas Sydenham**

**You must also use information of your own. 16**

There was little progress in understanding the cause of disease in the years 1250-1700 as religious and superstitious ideas were still widely believed to be the cause of disease by the 17th century. Despite the work of Thomas Sydenham and the decline in the Church’s authority, new ideas about the cause of disease did not show that people had truly developed their understanding of the causes of disease and so I agree with the statement.

There was little progress in understanding the cause of disease as belief in religious causes, which had dominated in the medieval period, were still important when plague broke out in London in 1665. Many people believed this was a result of mankind’s wickedness and that God had sent it to clean up his kingdom. As a result, the College of Physicians recommended prayer, fasting and repentance as a way to avoid catching the Great Plague. This shows that there was limited progress in understanding the causes of disease as this was the same thinking during the Black Death in 1348. In the same way, the belief that illness could be caused by the alignment of the planets continued, showing little progress in understanding the cause of disease. In 1345, there was an unusual positioning of the planets, which astrologers interpreted as a sign something wonderful or terrible was about to happen. The unusual alignments of planets in 1644 was also seen as a sign that trouble was ahead. Despite this continuity of ideas from the Black Death, there was an order to kill cats and dogs in London during the plague in 1665, suggesting some progress in ideas about cause of disease as this had nothing to do with religion or the alignment of the planets. Despite this, the Great Plague shows that there was little progress made as astrological and religious reasons were still considered important as they had been in the 14th century.

The work of Thomas Sydenham further proves there was little progress in understanding the cause of disease. Sydenham refused to rely on medical books when diagnosing a patient’s illness. Instead, he carefully observed symptoms and treated the disease causing them. This was a change from the medieval method of treating each of the symptoms separately, instead of seeing them all as side effects of one cause. Sydenham also grouped diseases, like plants and animals, and identified that measles and scarlet fever were separate diseases, although he was not able to isolate the microorganisms that caused them. This showed progress in understanding as, according to the Theory of the Four Humours, a patient’s disease was personal to them, caused by a number of individual factors such as weather and diet, but Sydenham’s work undermined this belief. Despite the progress made by Sydenham, the idea of the imbalance of the humours was still prevalent, as physicians would still recommend bleeding and purging as late as 1700. Therefore, progress was limited by 1700 as Sydenham’s modern ideas laid the foundations for a more scientific approach to medicine which would only really take hold from the 18th century onwards.

Renaissance discoveries and the role of the Church further prove that there was little progress in understanding about the cause of illness. Although the decline in the Church’s authority meant that new scientific ideas could be explored and medical training could develop, many people still believed in religious causes of illness as seen in their attitude to the Great Plague. In addition, Renaissance discoveries about anatomy and physiology had little relevance to ideas about the cause of disease and so progress in this area was limited.

In conclusion, there was limited progress in the understanding the cause of disease as, although Sydenham laid the foundations for a more scientific approach to medicine, he did not truly understand the causes of disease. Religion and superstition were still prevalent in discussions about the cause of disease and thus, despite the decline in the Church’s authority and the rise of Renaissance ideas, there was little progress in the understanding of the cause of disease.

**Explain why there was continuity in the treatment of disease during the medieval period.**

**You may use the following in your answer:**

* **Attitudes in society**
* **Four Humours**

**You must also use information of your own.  12 marks**

There was continuity in the treatment of disease during the medieval period because many treatments were based upon the theory of the four humours which was used to explain the cause of disease throughout the medieval period. The theory of the four humours stated that the body was made up of four humours and when a person was ill it was because those humours were unbalanced. As a result of this belief, treatments during the medieval period were based upon balancing the humours through treatments such as purging and blood letting using leeches or by cutting a vein. The theory of opposites that had been developed by Galen was also used to treat an imbalance in the Four humours by making someone eat something hot such as pepper if they had too much phlegm and cold and wet if they had too much blood. Treatment of disease did not change because any new discoveries about illness during the medieval period were made to fit the theory of the Four Humours.

There was also continuity in the treatment of disease because of the control that the Church had upon medicine and society. The Church supported the theory of the Four humours and supported treatments that balanced them. The church also taught that illness was sent by God as a punishment for sin which meant that treatments throughout the medieval period were based on cleansing the soul. Monks and nuns led prayers in hospitals that were run by the Church and encouraged people to treat illness by going on a pilgrimage to a holy site or visiting a shrine. People were encouraged to touch relics to be healed. Everyone had a strong belief in God and would not risk going to hell by being critical of the Church and so there was continuity in treatment throughout the medieval period.

Treatments also remained the same because there was a lack of scientific knowledge and understanding of disease. Physicians and medical students tried to make new discoveries

**Explain why there was continuity in ideas about the cause of disease during the period c1250- c1500? (12)​ You may use the following information in your answer.​**

* **The Church​**
* **Galen​**

Between the years 1250 and 1500 there was very limited change to medical science. There are a number of reasons for this but the key one was the church, which promoted the works of Galen and restricted experimentation that could have led to change. As people were religious, they did not welcome new treatments, nor did science seem to offer any.​

In the middle ages, the church has a virtual monopoly on learning. Monks were among very few people who were able to read and write, and until the invention of the printing press in 1440, they were in charge of reproducing medical knowledge. Medical books formed part of monastery libraries and were hard to access. They believed strongly that the purpose of science was to show the wonder of God’s creation, not to question it, and they opposed many scientific developments. ​

The church also promoted the works of Galen,  who they believed had shared many Christian ideas and so was an ‘enlightened pagan.’ It helped that he had written over three hundred books, some of which had survived the fall of Rome. He had strongly promoted the methods of observation and diagnosis put forward by Hippocrates, and the Greek idea of the four humours. To us this may seem a very primitive method of diagnosis but at the time it appeared rational and scientific. This (along with miasma) became the accepted theory on the cause of disease and few people questioned Galen’s authority. ​

We also need to consider the attitudes that existed at the time.  Simply put, these ideas were the best that were available at the time. The alternatives were either astrology (which had very little rational basis) or methods based entirely on superstition. Patients were understandably reluctant to be treated by Doctors using anything except Galen’s theories, because these seemed to be the most reliable treatments. Therefore doctors such as Henri de Mondeville – who opposed Galen’s theories and said they needed to be replaced – still treated people with remedies based on the four humours and the theory of opposites. Educated people believed that the Greeks and Romans had discovered everything and treated ‘improvement’ with suspicion.​

In conclusion then  – there was little change during this time period mostly because the church supported Galen and opposed change, and most people (both doctors and patients) felt entirely comfortable using these tried and trusted methods. There was no general demand for change

**Hospital treatment in England in the period 1250-1500 was very rare’​ How far do you agree? Explain your answer​. You may include in your answer the following​ [16]**

* **Charity Hospitals​**
* **Care in the home**

It is clear that hospital treatment during 1250-1500 was very rare​. Although hospitals were on the increase during this period most people did to want to go to hospital to get treated for their illness​. 30% of the hospitals were run by the church and therefore the focus was not on treatment it was more on care​. Religion dominated hospitals many patients were advised to pray at their bed side.​ Therefore it is clear that as hospitals focused on caring for the patient not treatment .

However, it is important to note that by 1500, there were around 1,100 hospitals in England. Bury St Edmonds was the biggest with 6 hospitals, caring of lepers and the old. Yet, it is important to note that Certain groups of people were not welcome into hospitals. The insane ad pregnant were rejected. Therefore, many individuals had to seek treatment outside of hospitals.

Many people preferred to be treated at home when they were ill, therefore hospital treatment was rare. People preferred to be cared for by their family and because the remedies and treatments used by women at home could be home grown and because the women were often well respected for their ability to cure illness. Many cures were linked to the humours and to diet, therefore treatment at home was practical and often just as good, or better than that in hospitals which cared rather than cured patients. Therefore, I agree that treatment in hospitals was rare​

Medieval hospitals role was more to care for patients and not treatment, therefore it is rare for patients to receive treatment in the hospital, rather going to local barber surgeons, wise women etc.

**Explain why some changes took place in medical knowledge during the Period c1500-1700 [12]**

* **The royal society**
* **Vesalius**

There were changes in medical knowledge during the period c.1500–c.1700 because of changes in the attitudes in society and an increase in scientifc thinking. Scientists and doctors were encouraged to question the world around them rather than just believe what they read in books. Thomas Sydenham encouraged doctors to question and look closely at the symptoms of his patients, rather than to just believe the ideas of Galen. Questioning and debate was also encouraged by the Royal Society, which met for the rst time in 1660. The Royal Society encouraged scientists and doctors to carry out experiments, share scientifc knowledge and debate new ideas. This questioning led to new knowledge. Thomas Sydenham published his book *Observationes Medicae*, rejecting the Theory of the Four Humours.

In a world of questioning and debate, other individuals were encouraged to develop new ideas that changed medical knowledge during this period. Andreas Vesalius challenged the anatomical ideas of Galen after dissecting human bodies. He proved that a human had only one jawbone and that blood did not pass through the septum. Vesalius’ new ideas about the anatomy of the human body were published in his book *The Fabric of the Human Body* and circulated widely due to the invention of the printing press. This allowed changes in medical knowledge to take place.

With a decline in the power of the Church between 1500 and 1700 there was an increase in scienti c experiments. New ideas about the causes and treatment of illness developed following observation and scienti c experiments. These included animalcules and transference. Animalcules were seen through a microscope in 1683. Some believed these tiny animals were created by illness. Transference was where people believed illness could be passed from a person to an object in order to treat them. This new medical knowledge spread throughout this period thanks to the printing press and the Royal Society where these ideas would have been discussed and debated.

**‘There was little progress in medicine between c.1500-c.1700’**​
**How far do you agree?  [16]**

It is clear that the idea that there was little progress in medicine in the Renaissance period is flawed, as there was clear progress in the understanding of the human body which laid the foundations for future progress.​

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The Renaissance showed many medical breakthroughs which did create progress within the history of medicine. One of these medical breakthroughs was Harvey’s discovery that the heart was a pump and that it circulated bold around the body. This proved Galen’s theory incorrect that blood is constantly made in the liver. This shows there was medical progress as in the long term as Harvey’s discoveries would inspire future doctors and lay the foundations for more medical progress in the future. For example his discovery created the stepping stones for future doctors to discover blood types which lead to the development of blood transfusions and heart surgeries. This is a clear example of progress in medicine.​

​

A different reason why there was medical progress in the Renaissance period is shown in the work by Sydenham. His work as a physician added to medical progress at the time. This was because he used observation of patients and the use of records to diagnose illness and to find treatments such as Cinchona for treating Malaria. He also was able to identify the differences in measles and scarlet fever. This shows medical progress as he used his initiative and medical knowledge to create better and more effective treatments. This was a clear break from using Galen's work on the theory of opposites to diagnose patients, showing clear progress​

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A further example of clear medical progress is the work of Vesalius. Vesalius was able to prove many of Galen’s theories incorrect. He showed through the dissections he was able to carry out that in fact the human jaw was made of one bone not wo as Galen suggested. He also showed that men do not have less ribs than women. These discoveries he was able to spread using the Printing press, in his book the Fabric of the human body. This was a clear example of progress as many were able to use the detailed drawings that Vesalius have in his book to study the human body and therefore develop their understanding.​

​

There were some clear examples of progress when treating patients. Due to the discovery of the new world physicians and apothecaries were willing to try some of the new herbs and chemical substances discovered during this period. Sarsaparilla was used to treat the Great pox, and Ipecac was used against dysentery. Chemical cures were also being experimented with such as mercury and antimony which were used to promote sweating. The fact that new treatments were even being used shows a clear element of progress.​

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However there were also factors which showed lack of medical progress within the Renaissance period. For example the Church still had support from many, people still believed that god caused many illnesses, a key example is how many still prayed and used flagellants as treatments for the plague. Many were reluctant to accept the new ideas  suggested by Vesalius and Harvey, it took universities over 50years to start teaching their ideas rather than Galen’s. this shows that although there is clear progress in ideas there was not always the progress in acting on the new ideas.​

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In conclusion I believe that there was clear progress when it came to the understanding of the human body, as now there were accurate books that would allow doctors to have a better understanding of the human body. There were clear advances during this time in the understanding of the body yet there was still limited understanding of what caused illness as there was a limitation on technology that could show the cause of illness.

**Explain why there were advances in the prevention of disease and illness in the period c.1700 – c.1900.​**

**You may use the following in your answer:​**

* **Germ Theory​**
* **Vaccinations​**

**You must also use information of your own.​ 12marks**

One reason for advances in the prevention of disease and illness was the discovery of the Germ theory. Once the Germ Theory was discovered in the 1860s, Pasteur was able to explain the significance of Jenner’s smallpox vaccine. This advance in scientific understanding led to the discovery of microbes by Robert Koch and the development of further vaccines, for example Tetanus and Diphtheria.​ This was key to the prevention of illness.

Another reason for advances in the prevention of disease and illness was government intervention. Government intervention meant that the smallpox vaccine became compulsory after 1852 and was more strictly enforced from 1872, that a sewer system designed by Joseph Bazalgette for London was funded and that a Public Health Act became compulsory in 1875 leading to much cleaner streets for the people of Britain.​ Therefore the government were key for the advances in the prevention of disease and illness.

The work of individuals was vital in the prevention of disease and illness in the period. One example is in 1854, Dr John Snow discovered that cholera was caused by dirty water leading to the development of a sewer system throughout London to ensure dirty water was removed from the streets.​ This inspired others to develop work such as Pasteur who was able to prove John Snows theories. Joseph Lister was also key in the prevention of disease and illness. Based on the work of Pasteur, Lister was interested in how to overcome the spread of infection. He developed the Carbolic Sprat which led to a reduction on infections during surgery.

**Explain why surgery changed so rapidly in the 19th Century [12]**

The discovery of anaesthetics was a major breakthrough in surgery because it meant that surgeons did not have to work quickly to minimise pain and shock, and could do more complicated internal operations. Although early anaesthetics had problems, James Simpson’s development of chloroform and John snows invention of a chloroform inhaler was important in making them Safer. In 1853, Queen Victoria used chloroform during childbirth, convincing other surgeons and patients that the benefits of anaesthetics outweighed the risk, and the impact of chloroform on surgery increased.

Infection limited the amount of anaesthetics because although operations could now take longer, operating conditions were unhygienic so patients died of sepsis. Some medical workers found better hygiene reduced the death rate for patients. For example, Florence Nightingale insisted on clean wards and one patient per bed. before Pasteur’s Germ theory, however, medical workers did not understand why hygiene health combat infection. They thought it stopped miasma, which led to techniques such as keeping wound tightly bound. This is in fact created better conditions for bacteria to grow.

Although there was opposition to listers work at first, he’s ideas lead to major changes in surgery because surgeon to use his technique so big reductions in the numbers of patients dying from infection. In 1878 Koch identified the microbe causing blood poisoning, convincing surgeons to use antiseptic treatments. These developments contributed to rapid change in surgery in the 19th century because they revolutionised what surgeons could do: Anaesthetics allowed surgeons to attempt internal operations and antiseptic’s meant that people recovered from them, encouraging more surgeons to attempt them. Significant problems such as the problem of blood loss still remained. However, surgery at the end of the 19th century advanced very rapidly since the start.

**Explain why there was so much opposition to Jenner’s vaccination against smallpox. You may use the following in your answer inoculation and the Royal Society. [12]**
There was a lot of opposition to Jenner’s smallpox vaccination at the beginning of the 19th century. One cause of the opposition was a lack of acceptance from the medical profession. Doctors were used to giving inoculations and did not want to change their approach. The Royal Society did not help when It said that Jenner’s idea was too revolutionary and refused to publish his book.

There was also opposition from the religious community. The anti-vaccine society was set up to oppose the vaccination. They did this by publishing cartoons that made fun of the vaccine and tried to scare people into not trusting and therefore not having the vaccination. One such cartoon showed people who had the vaccine turning into cows. Many religious believers thought it was against gods law to give people an animal disease. It was believed that smallpox was sent as a punishment for sin and that only prayer and living a good life could kill the disease.

Jenner’s inability to explain how his smallpox vaccine worked did not help to reduce the opposition. Pasteur Did not publish his germ theory until 1861, so Jenner did not know the bacteria caused disease. This meant that he did not know exactly how vaccination worked and Jenner wasn’t able to explain it to others. The longer-term consequences of this was it was not possible to learn from this discovery how to prevent the spread of other diseases. Without a clear explanation, the opposition to the smallpox vaccine continued.

**Edwin Chadwick’s Report was the main reason why public health in towns improved during the nineteenth century. Do you agree? [16]**

The public health in towns did improve during the 19th century and one reason for this was due to Edwin Chadwick’s report. In 1842, Edwin Chadwick wrote his ‘report on the sanitary conditions of the labouring classes.’ In this report, Chadwick showed that the poor lived in dirty, overcrowded conditions which caused a huge amount of illness. Due to this, many people were too sick to work and so become poorer still. This had an effect on the richer people because they had to pay more taxes to help the poor. Chadwick suggested that Taxes should be cut, and money should be saved in the long run by improving drainage and sewers, removing refuse from streets and Houses, providing clean water supplies and appointing medical officers in each area to check on these reforms. Initially there was opposition to Chadwick’s ideas due to the initial need to increase taxes and for the government to get involved in local matters. However, after an outbreak of cholera in 1848, the government passed the 1848 public health act which led to many towns improving their public health. This shows that Chadwick was important because he pushed the government to act in 1848 for the first time

On the other hand, the discovery of John Snow that cholera was caused by dirty water was also an important factor in improving public health in towns during the nineteenth century. Snow carried out an investigation of the Broad Street water pump after observing the number of deaths in this area from cholera. He noticed that those dying were using the same water pump and so he removed the handle; taking the water pump out of use. When he did this, the number of deaths went down. Snow then investigated further and noticed that there was a cesspit next to the water pump with a cracked lining and waste from the cesspit was seeping into the water and spreading cholera. Snow had proved that dirty water was a cause of a major killer in the nineteenth century. Unfortunately, the government did not act immediately. It needed Pasteur’s Germ Theory to explain Snow’s findings. However, the government did eventually fund the building of a sewer network below London to remove waste and dirty water. This was designed by Bazalgette and begun in 1860.

**The main reason that penicillin was developed in the early twentieth century was because of the work of individuals’ how far do you agree? [16]**

The statement is partially correct because the work of Florey and Chain was vital in the development of penicillin. Florey and Chain read and developed the work of Fleming, who initially discovered that penicillin killed the staphylococcus germ in 1928. They secured funding from the British government to create enough and test penicillin on mice and humans. During the Second World War, Florey and Chain secured the funding from the USA for the mass production of penicillin. Without the work of Florey and Chain, knowledge of penicillin and its ability to eliminate deadly infections would not have been recognised and understood.

However, the statement is partially incorrect because other factors also played a role in the development of penicillin. Science and technology was important. Scientific experiments were carried by Florey and Chain when they developed penicillin; initially testing it on mice and then on humans. Technology enabled the creation of the initial equipment needed to make enough penicillin to carry out these scientific experiments. This shows that science and technology was vital in providing Florey and Chain with their knowledge and understanding of the powers of penicillin in medicine.

In addition, if the WW2 has not been happening it is unlikely that Florey and Chain would have been supported. WW2 was raging and the US government funded 21 pharmaceutical companies to mass produce it. By D-Day, enough penicillin had been produced to treat all Allied casualties. Therefore the work of government driven by war is an important factor to consider here.

Therefore, it is clear that the work of Individuals was vital in regards to the development of penciilin, without the technology and without the government backing it would not have developed to where it did.