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# Examiners' Report
# June 2015

# GCSE History 5HB01 1A

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# Introduction

This was the first examination of the strengthened specification and it was pleasing to see that many candidates seemed well prepared for the changes in question style and format. Possibly in response to these changes, examiners noted a sizeable number of candidates using the phrase 'from my own knowledge' but this is unnecessary; any additional information about the context in questions (Q)1 and Q3 or any third aspect in Q4-7 is obviously from the candidate's own knowledge.

Examiners also noted a marked increase in the amount of candidates taking extra paper. It should be noted that the space allocated for each answer reflects the amount of available marks and is intended to allow for some planning work, as well as the written answer in the longer questions. It was noticeable that additional marks were earned on the extra pages by very few of the candidates involved. In the majority of cases the extra pages were taken for the early questions and gained no extra marks, yet in many cases these candidates then produced short answers for the later, more heavily weighted questions.

Anecdotal evidence suggests that candidates are being encouraged to use extra pages in the expectation that their paper will then be marked by a senior examiner. This is a false assumption – teams of examiners marked all scanned answers.

The extended answers now offer only two bullet points as stimulus. This means that candidates need to be familiar with the names, events and terms used in the specification in order to recognise the appropriate chronological period. There has always been the problem of candidates thinking that the 19th century refers to the 1900s. However, candidates also need to be able to place the Roman or Anglo-Saxon periods accurately and recognise that there may be gaps of hundreds of years between the events about which they are writing when discussing change and continuity.

In the extended answers candidates need to include additional information of their own. Candidates who do not do this cannot achieve above 10 marks. Here again, it is important to have a sense of period so that appropriate additional material may be included. Candidates are not required to use the stimulus material but should still aim to cover three aspects or more, in order to be sure that they have covered all sides of the question or the entire timescale.

At Level 3 the candidates analyse the question in order to ensure that they address the question that has been asked, whereas Level 2 answers tend to provide information about the topic in the question. Another key feature of answers at Level 3 and above is that they explain the link between the question and the detail they provide, rather than simply stating that this detail supports or challenges the idea in the question or that this factor led to change or continuity.

The conclusion is very important at Level 3 and Level 4. At Level 3 many answers will give evidence to support the statement followed by evidence against it, and then offer a conclusion that the statement is 'somewhat true'. There is no sense of an argument building up throughout the answer or any evaluation of the two sides of the argument. The conclusion should weigh up the strength of the evidence on each side and explain how a judgement has been reached. This is a difficult skill so it is not surprising that few candidates are able do this at GCSE. However, it is noticeable that many Level 4 answers include plans that show the candidate had not only selected relevant information but had established a clear line of argument before starting to write the answer.

## *Question 1*

The basic thrust of this question has not changed – it focuses on analysis of change. This has not become an evaluation question so comments about continuity cannot be rewarded. There were relatively few comments about the reliability of the sources in the question but these, again, cannot be rewarded. It was also pleasing to see fewer answers wasting time by giving extensive quotations and descriptions.

As before, candidates need to use the sources in combination in order to identify the nature or extent of change but now they must include additional own knowledge.This can be used to give further detail about the situation in the sources or it can be used to explain the nature or extent of the change that has been identified.

In some cases, the additional knowledge was very brief, for example a reference to the fact that the hospital ward in B was after Nightingale's work made nursing a respectable profession. In other cases, more detailed information was added at the end and not linked to the sources or to the change that had been identified.

In this question, Source A showed that medieval hospitals were run by the Church and that a small number of women was employed to care for the patients and change the sheets when necessary, whereas the photograph in B showed nurses and doctors in a ward in a hospital in 1908.  Changes identified by candidates included: changes in the staff providing the care (an increased number of nurses and the inclusion of male doctors), the professional appearance of the staff, the higher level of cleanliness and the design of the hospital.

The most common use of own knowledge was to explain the shift from care to cure, the work of Florence Nightingale in the training of nurses, professional qualifications, improved understanding of the importance of hygiene following Pasteur's germ theory, or to explain the role of the Church in medieval hospitals. However, candidates should remember that the focus of this question is change between the two sources and lengthy own knowledge is not a guarantee of high marks.

In some cases candidates were limited in the marks they could achieve because although the answer arose from the situations in the sources, all of the details were from own knowledge, with no explicit reference to the sources.

Some excellent answers were characterised by a direct focus on change. These answers started by stating the change that had occurred and then used details from the sources to demonstrate that change, and own knowledge to explain how or why it happened.

It was noticeable that some candidates lacked an accurate chronological sense of context and made invalid comments about the sources or the change that was identified. Candidates also lost marks when they did not focus on the question and identified change in understanding disease, in the role of women in medicine or change in the role of the Church. Some answers discussed the two sources separately and the identification of change was left implicit or different points were highlighted in A and B. It should be noted that identifying a difference between the two sources is not the same as inferring and explaining a change.

Unfortunately, some answers that had a good explanation of the nature of change based on the sources, did not include own knowledge. These could not achieve more than half marks.

Sources A and B show clearly the eventual professionalisation of medical care across the years. In the 1257 source, it was a time when medicine was controlled heavily by the church and focused mostly on a holistic approach as well as making people comfortable during their death/illness rather than curing them. The source does not mention anything about the level of training or qualification of the 'well respected women', implying that nursing was a career anyone of suitable characteristics could join. However, source B shows dramatic changes; the hospital is neatly organised showing a focus on cleanliness and organisation influenced by figures like Florence Nightingale. There are also many doctors and nurses stood around in standard uniform; this demonstrates the professionalisation of both careers as by this point you had to pass exams and register (amongst other things) to become a nurse/doctor. Also in this photograph we can see that treatment is now more focused on curing the patient as opposed to just making them comfortable, as medical knowledge had increased dramatically by this point because of breakthroughs like Pasteur's Germ Theory in 1861.

**ResultsPlus**
**Examiner Comments**

The answer starts with a clear statement about change.

This is then explained by reference to both sources and own knowledge is used to develop the explanation further. It achieved full marks.

Total = 8 marks

**ResultsPlus**
**Examiner Tip**

Start by identifying the change that has occurred between the sources.

Source A tell us that only three or four women take care of the Sick. Whereas in Source B lots of Men and women took care of the Sick. This tell us that More people were used to take care of the Sick. Also Source A the women are aged around 50 years old. In Source B there looks to be a Mixture of younger and older women. This was because they only wanted women who had some knowledge. Another change was In Source A, the hospital was in a church. Whereas Source B the hospital had it's own building. Showing us how Care had Moved from religon to doctors and nurses in hospitals.

**ResultsPlus**
**Examiner Comments**

This answer does identify change that has occurred but does not use any additional own knowledge, therefore it cannot achieve more than 4 marks.

Total = 4 marks

## *Question 2*

The topics named in Q2 are named in the specification so it was disturbing to see some blank or very confused answers. Some candidates also misread the question and provided detail on Roman ideas about disease or methods of treatment.

Chronology continues to be difficult for some candidates, who are unsure about the different periods named in the specification – details about medieval public health could not be credited here. However, the majority of answers included a range of relevant detail.

The choice of Roman public health was overwhelmingly more popular than the alternative focus on the treatment of illness in Anglo-Saxon England.

Roman baths, aqueducts and sewers were named most commonly and varying amounts of detail were provided. Some answers merely listed aspects of Roman public health, whilst others gave thorough descriptions.

Many excellent answers provided clear explanation of the way that the Roman infrastructure contributed to good public health. For example, answers described the provision of sewers to remove waste and the provision of clean water to prevent water-borne diseases and encourage good standards of hygiene. Some answers explained the whole process involved in a visit to the baths: the gymnasium, the skin being scraped, hairs being plucked, the plunge pools etc.

A number of excellent answers also explained public health features such as lead pipes, water fountains, latrines and the differing facilities available to the rich and poor. They pointed out that the baths were inexpensive enough to be visited daily or that the water in the public baths was not changed very often.The fact that Romans believed in miasma and therefore avoided swampy areas was often mentioned, as was the link to the army or the role of the government.

A high proportion of answers on Roman public health achieved 5 or 6 marks, with some impressive specific knowledge about specific places such as Bath and Wroxeter.

It should be remembered that this Thematic Study is about British history and therefore comments about Rome itself (such as the Cloaca Maxima) are not relevant but this seemed to happen less often than in previous years.

Answers on the Anglo-Saxon option tended to be less knowledgeable and often described treatment based on the Four Humours, medieval ideas such as astrology and aspects such as the barber-surgeon and housewife-physician. Very few mentioned specifically Anglo-Saxon key features such as leech books. It is important that schools realise this part of the course is now compulsory and medicine during the Anglo-Saxon period is not the same as medicine during the later medieval period.

Since the question asks about key features candidates should provide details on several key aspects of the topic, not simply list them. In addition, there should be some logical organisation to the answer but there is no expectation of argument or evaluation – and there are no marks available for such comments.

Some candidates treated this as a high mark question and explained the impact of the Romans on public health, the situation after they left Britain or why public health was so important to the Romans. This was outside the scope of the question and sometimes these answers received low marks despite their good knowledge, because they failed to include the description of key features - which was the focus of the question.

As a generalisation, low-scoring answers on Anglo-Saxon treatment of illness lacked accurate contextual knowledge, whilst low-scoring answers on Roman public health lacked a focus on the question.

Public Health in Roman Britain was well structured and well organised. The Romans built aquaducts, which would transport fresh water for miles and provide every town with their own supply of fresh drinking water. The Romans also built Reservoirs to manage water levels. Romans built Public Latrines, which were toilets that many people would go to chat whilst relieving themselves, they would also have a sponge on a stick, instead of toilet Paper, which they would dip in water to clean, ready for the next person. They also had Public Baths. These were huge and had many different stages. First the Public would have to work up a sweat in the gymnasium or in the gardens and then they would move on to the hot room, or sauna, which would open their Paws. Next they would get into the hot Pool where dirt would be washed out of their Paws and are cleaner. Then finally they would get into the cold Pool, to close their Paws so no dirt can enter through them.

The Public Health systems would have been Produced if it wasn't for the Roman's engineers and knowledge. The Romans built away from swampy areas because they noticed a link between dirty water and air, in the rate of disease

**ResultsPlus**
**Examiner Comments**

This answer describes a good range of key features of Roman public health; it scored full marks.

Total = 6 marks

**ResultsPlus**
**Examiner Tip**

Make sure you provide details and do not just list key features.

Many people would say that the Public Health in Roman Britain was a dramatic developement after Ancient Greece. This was due to that fact the Romans focused on a powerful empire and to create that they needed a healthy army.

To create a healthy life style Romans made sure there was clean water by having an aqueduct and the cities/towns were not near swampy areas. This is because they knew that dirty areas were bad for your health eventhough they didn't know why.

Romans were quite rich resulting in them being able to have baths and latrines with sewers. This was a huge derelopment from Ancient Greece because they didn't have sewers.

**ResultsPlus**
**Examiner Comments**

This answer includes some valid details but they are not developed.

Total = 4 marks

**ResultsPlus**
**Examiner Tip**

Do not include irrelevant details. This paper is about medicine in Britain so there are no marks for comments about Greece.

## *Question 3*

This was a totally new-style question for this paper but it was very similar to Q4 in the Unit 3 examination of the previous version of this specification. Most candidates did not seem to find it difficult to answer but they often made the same mistakes that had been seen on Unit 3 previously.

Relatively few candidates assumed that the source's usefulness (or reliability) depended simply on its nature or date. This approach, which takes little account of the specific source being assessed, is likely to remain at Level 1, as is a judgement based on the amount, or clarity, of detail in the source.

A focus on the specific source was likely to be Level 2. Some answers discussed the content of the source with the implicit assumption that this information must be useful to the historian. However, many candidates did explain why this information was useful for the historian's enquiry.

A number of candidates also made links to their own contextual knowledge to show whether it was accurate or if there were gaps in the information. These comments were usually about Harvey's other work or the importance of Vesalius and Harvey in challenging the dominance of the Church and Galen in medical training. Most of them described Harvey as 'respected' and did not recognise that Harvey's ideas were not commonly accepted and taught for another 50 years.

It was interesting to see a number of students discussing the source in terms of accuracy and comprehensiveness, which is a valid way to apply additional contextual knowledge to the information in the source. In some cases there was little use made of details from own knowledge: they were added to the answer merely in an attempt to validate the source. Otherwise, the answer became an explanation of Harvey's importance or an answer about the Renaissance, rather than an evaluation of the source.

In other cases, valid comments were made about the context of the source but they were not supported with additional details from own knowledge.

A minority of candidates did not address the question's focus on usefulness to an historian. Instead, they assessed the source for its usefulness at the time or its usefulness in terms of physiological and medical knowledge. Some answers criticised the source because it was not clear or it needed explanation in order to be understood.

Fewer candidates focussed on reliability. These were more likely to make assertions without providing supporting evidence or showing how it affected the source's usefulness. The automatic claim that the source was biased was made frequently. There was an implicit assumption that this is a negative point but with no explanation of the bias (towards / against …?), no details offered to demonstrate this bias and no explanation of the link to utility. Similarly, it was noted frequently that the source was primary and it was assumed that coming from the period in question it was automatically reliable and valuable.

Better answers could focus on the nature and purpose/intended audience of the source. They considered whether it was a private or public source, if it was intended to influence other people, or whether the circumstances distorted the source content in any way. Some candidates claimed - mistakenly - that this was a photograph and therefore automatically reliable.

Additional knowledge was used here to discuss whether the source showed a typical or unusual situation and whether the author's knowledge was sufficient to allow this to be treated as an authoritative source. However, a number of candidates used a checklist approach here, writing a comment about nature, origin, and purpose but not developing it.

Typical of this approach was the comment that as a diagram the source was not very useful because it did not have much detail, its origin was from Harvey's book and its purpose was to inform or educate others. There was little development offered - for example, an explanation that the book was aimed at physicians and aimed to show the errors of Galen,

explain Harvey's theories and show his experiments, so that other physicians could check his findings.

The best answers combined both elements. They considered the usefulness of the content but modified the judgement about usefulness through a consideration of reliability or whether the source could be treated as representative of the period. Such answers also recognised the specific focus in the question that the historian's enquiry was about medical knowledge during the Renaissance.

There were relatively few answers that recognised all the demands of this question and it was disappointing to see a number of excellent answers that were restricted to 4 marks because they did not include additional own knowledge.

**3** How useful is Source C to a historian who is investigating medical knowledge during the Renaissance period?

Use Source C and your own knowledge to explain your answer.

**(8)**

Source C is useful because it shows that people knew about the blood being pumped around the body by the blood flow, and it gives a diagram to easily prove it. It shows knowledge has progressed enough to prove Galen wrong about what he

said about the organs using up blood, as it can be seen flowing around the body. It is ~~also~~ also useful because it is printed in a book, allowing wide distribution of this new development.

However, it is not useful because it doesn't show how many people read the book or understood the diagram. It doesn't show how medical knowledge has changed/stayed the same during this period. The source also doesn't show if the theory had been accepted, as Harvey was going directly against Galen's teachings, and so the Church's, who were very powerful during this period.

In conclusion, the source is both useful and not useful, but more not useful, as it shows one man's developments, but doesn't show the acceptance and impact it had on medical knowledge, especially since it ~~didn't~~ doesn't change how treatment was carried out.

**ResultsPlus**
**Examiner Comments**

This answer achieved full marks.

It discusses the usefulness of the source content but it also takes into account whether it is representative of medical knowledge at that time.

It includes own knowledge about attitudes towards Galen's teachings and the importance of the Church.

Total = 8 marks

**ResultsPlus**
**Examiner Tip**

Make sure you think about whether the source is reliable or representative.

The usefulness of the source information is different, depending on whether the source is accurate and objective, or slanted, and whether it represents a typical situation or an unusual one.

**3** How useful is Source C to a historian who is investigating medical knowledge during the Renaissance period?

Use Source C and your own knowledge to explain your answer.

**(8)**

The purpose of this source was to inform people that blood only flows in one direction and not backwards. This make this source useful to a historian, studying the Renaissance.

~~Another~~ Another reason it is important is because it is from Harvey and is a primary source Harvey was also a very respect Physician. This makes this source useful to a historian studing renaissance.

This source is also very useful because it shows even in renaisso not much ~~medical~~ practical medical progress was made because they still believed in what galen said. This is ~~is~~ useful to a historian study the Renaissance.

**ResultsPlus**
**Examiner Comments**

The answer looks at the purpose and origin of the source but it states simply that these aspects of the source make it useful - it does not develop an explanation.

The comment that it shows Galen was still important during the Renaissance is not valid. A better answer would have been to consider what the source shows and then use own knowledge to point out that Harvey's ideas were not typical of this period because Galen's ideas were still dominant.

Total = 3 marks

**ResultsPlus**
**Examiner Tip**

Make sure you explain how a source would be used by an historian, do not just say that it is useful.

## *Question 4*

Responses, here, generally showed good knowledge but also demonstrated the importance of question analysis and structure in an answer.

Among weaker answers, a number of candidates thought that Galen was responsible for the idea of Four Humours and seemed unsure about Hippocrates, sometimes talking about 'the Hippocrates' suggesting they thought that this was a title or a group of people. However, even amongst those candidates who had accurate knowledge, far too many saw this as a question about Hippocrates and Galen and wrote at length about the Four Humours, bleeding, purging and the Theory of Opposites.

Some candidates also wrote about Clinical Observation, the Hippocratic Oath and Galen's anatomical experiments – all of which showed good knowledge but did not answer the question. The command term 'Why' indicated that this was a causation question and possibly these candidates were answering the question 'Why were the ideas of Hippocrates and Galen important?'. The actual question was about the reasons why these ideas remained important for hundreds of years.

Good candidates also recognised that the question focus covered a broad timescale and their answers went up to the Renaissance period but kept the focus on why these ideas remained important, rather than why they lost importance at that point.

Less able candidates were confused about chronology and thought Galen was before Hippocrates. Often, they stated that both Galen and Hippocrates lived during the medieval period and that the Renaissance was during the 1800s.

Answers were often unbalanced, referring to Hippocrates and the Four Humours as something that was then developed by Galen into the Theory of Opposites. Despite stating that Hippocrates was seen as the 'Father of Medicine' and mentioning the Hippocratic Corpus, Clinical Observation and Hippocratic Oath, relatively few candidates could explain their importance or showed that the practice of purging was based on his ideas.

Relevant points made included comments about the Four Humours being a rational explanation of illness as an alternative to a belief in the supernatural. They also noted that the level of available technology made it difficult to develop more scientific theories.

Many candidates also pointed out that bleeding, purging, rest, exercise etc could often be effective when used to treat minor illness. Other answers explained that the ideas of Hippocrates and Galen were collected and written down and that while much knowledge was lost during the early Middle Ages, Galen's works were often preserved.

The most common point made was an explanation of how Galen's ideas fitted in with Christian beliefs and therefore the Church endorsed his views, even though he had not been a Christian. The Church's control over medical training and the disapproval of dissections then cemented Galen's pre-eminence and prevented challenges to these theories. This developed explanation is clearly Level 3 and moves beyond a simple statement that Galen's ideas were used in medical training because the Church approved of them. The best answers included a range of reasons and showed that they interacted to reinforce the importance of these ideas.

Despite good knowledge, a large number of answers did not reach Level 3. They provided lengthy descriptions of the ideas of Hippocrates and Galen, followed by brief statements showing that these ideas remained important for hundreds of years and listing reasons for this, such as the support of the Church and the lack of challenge to accepted ideas. Other, noticeably shorter answers, reached Level 3 within the first paragraph because they focused on explaining the reasons why these ideas were important.

**Indicate which question you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.**

Chosen Question Number: **Question 4** ☒ **Question 5** ☐

Hippocrates was ~~alive~~ alive during the Greek period, and Galen during the Roman period. However, ~~their~~ ideas were still widely used and regarded as sacred until around the 17th century. This is because of multiple reasons.

The first reason is that there was a period of regression after Galen. After the Roman times, in the Middle ages, ~~there were~~ almost the public health was worse, and there were no new ideas. This is because there wasn't a strong government or leaders so the public health was especially awful for poor people, and in general there was little interest and respect in/for Science and medicine. This meant they stayed with Galen's ideas.

The second reason is because of religion and the church. Galen said that the body was so perfect and precise that it must have been designed. The church took this as an opportunity to say that it must have been God, and that all the signs pointed to God's existence, and because of this, the church supported Galen, and they even

protected his books during the middle ages Because Galen seemed to support the church, and these ideas, they strongly discouraged anyone from challenging Galen and questioning any of his ideas, and they were treated as sacred fact. This meant that there were no new discoveries - until the renaissance when the churches influence was lessening and Vesalius proved Galen wrong with the amount of bones in the jaw.

The third reason that Galen and Hippocrates' ideas like the four humours (phlegm, blood, yellow bile, black bile), and the theory of opposites was popular for so long was because they were the first real, developed reasons that were put forward for the causes of disease. This meant that many people did not think to question them.

In conclusion, the main reason that Hippocrates and Galen's ideas were popular for so long was because of the church. They protected Galen's books, protected his ideas, and deterred new ideas. This is why Galen and Hippocrates became less important when the churches influence lessened during the renaissance.

**ResultsPlus**
**Examiner Comments**

This answer achieves full marks.

It has a very clear focus on reasons why the ideas of Hippocrates and Galen remained important.

Total = 12 marks

**ResultsPlus**
**Examiner Tip**

Make sure you analyse the question and answer it: do not write only about the topic.

This was a causation question so your answer needed to focus on reasons.

The ideas of Hippocrates and Galen were important for hundreds of years ~~because of~~.

They where important because the ideas ~~he~~ healed people and save the lives of lots of people during the hundreds of years so at the time both the ideas where big medical brakethous.

They ideas were also important because they where the only theories around that cured the sick at the time so it was important to cure the sick so it was important the theories were used

I think ~~no~~ new ideas ~~had been~~

New ideas wasn't heared about or couldn't be publisised because there was no way of printing or publishing new ideas because there was no printing press so the only theories doctors knew ~~the~~ was ~~a~~ Galens and Hippocrates.

I think the main reason why the ideas of Galen and Hippocrates were important for hundreds of years is because the ideas cured the sick so they didn't have to change the way they cured the sick.

**ResultsPlus**
**Examiner Comments**

This answer makes some valid points - there were no alternative theories to explain illness, there was no printing press so new ideas were not published, and some of the treatments seemed to be effective.

If supporting detail had been included this could have been Level 3. Instead, it was Level 1.

Total = 3 marks

## *Question 5*

Less able candidates tended to lapse into description of ideas about the cause of disease, treatment and prevention, often focussing on the Black Death. Some answers that concentrated on Snow also focussed on how the problem of infectious diseases was solved with the work of Snow, Pasteur and government action on public health, rather than explaining why they were a problem.

Better answers did include valid comments about poor hygiene and living standards, lack of understanding of disease or the failure of the authorities to take effective action. However, candidates often did not place their answers in context and consequently generalised points were made that applied to the whole period and lacked the specific detail or depth to merit high marks. For example, a point about crowded and unsanitary living conditions was used to explain why disease spread rapidly, with little recognition that conditions were different in the medieval and the industrial towns, and the term 'laissez-faire' was applied to the whole period.

There was often good knowledge about the plague or the work of Snow but individual examples were taken to be representative of the whole 500 year period, with little differentiation between the lack of action in 1348, the ineffectiveness of the Mayor's orders in 1665, and the laissez-faire attitude of the 19th century.

Strong answers were able to explain a range of reasons why infectious diseases caused such problems and a few also named other infectious diseases such as smallpox, typhoid fever, and tuberculosis. Points made included the fact that in 1348 a belief in supernatural causes or the Four Humours offered little effective action. Whilst the idea of miasma did stimulate attempts to improve hygiene, the authorities lacked the power to enforce them.

By 1665, the Lord Mayor's orders about isolation and preventing crowds would have had some effect but orders to kill cats and dogs and enforce fasting and prayer would not. This showed the importance of correct understanding of diseases and how they spread. Meanwhile, Jenner's development of a smallpox vaccination was important but could not be applied to any other disease and had limited effect until it was enforced by the government.

The Industrial Revolution exacerbated all the problems of hygiene and over-crowding that had been present in medieval towns and made the spread of infectious disease much more of a problem. The failure to make the 1848 Public Health Act mandatory and the role of water companies in resisting reforms were also mentioned by some candidates. Snow's action in removing the handle of the pump showed that effective action was possible even without accurate understanding of disease, but people were reluctant to take responsibility for the measures needed, showing the importance of public attitudes.

Examiners commented that the majority of Level 3 answers were structured around reasons why infectious diseases were a problem, using the Black Death, cholera and other diseases as examples. Level 2 answers tended to write about the two stimulus points and were usually descriptive, with little development of any comments about reasons why infectious diseases were a problem.

**Indicate which question you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.**

Chosen Question Number: **Question 4** ☒ **Question 5** ☒

Infectious diseases were a problem ~~because~~ for many reasons. For example they had no knowledge of germs and they would live all together in cramped, dirty houses. This lead to ~~dea~~ disease being able to spread quickly. ~~Fleas off rats would~~ During the great plague, Fleas, off rats, would infect one person who would then quickly pass the germs on and create a chain reaction.

Infectious diseases were also a problem because there was no treatment. The king/ government didn't introduce public health schemes as the felt it wasn't their duty. This meant they couldn't afford to go anywhere to get clean/better and these disease word get worse ~~and~~ becoming infected

**ResultsPlus**
**Examiner Comments**

This has the correct approach: it identifies poor public health and living conditions, and lack of action from the authorities, as two key reasons why infectious diseases were such a problem.

However, no supporting detail is provided and there is little to indicate which part of the period 1350-1850 is being discussed.

Consequently, it was placed in low Level 2.

Total = 6 marks

**ResultsPlus**
**Examiner Tip**

Try to include details from the whole period in the question.

Infectious diseases were a big problem during the years 1350-1850 mainly due to a lack of knowledge and understanding about Germs and bacteria.

Firstly, one reason infectious diseases were a problem was because people believed in wrong idea's, and has no knowledge on germs and the spread of germs. Many people believed that the Black Death was caused by punishment from God, so flagellents would attempt to dispose of their sins by whipping themselves. Others killed cats and dogs as they thought they caused disease, whilst some would Mascared Jews as they believed Jews poisoned the wells. Supernatural ideas also existed such as alignment of the planets but all this ideas were false so infectious diseases continued to be a massive problem and took many lives. Treatments ~~were~~ did not work as they were based on these wrong idea's so diseases were not cured. The plague also had the same idea's surrounding it.

Another reason for infectious diseases being a large problem was the lack of knowledge of the cause of Cholera. Cholera epidemics were a massive danger to towns. Cholera had at least 4 main times it effected Britain, in 1831, 1837, 1842 and again in 1854. During the period 1350 - 1850 no one understood where the disease came from or how to cure it, so it was left to wipe out many people. It was not until after this period in 1854 when John ~~Snow~~ Snow ~~mapped~~ mapped the cases of cholera and traced it back to a well, suggesting cholera was water borne. Solutions were then put in place which solved this infectious disease but these solutions where not existant before 1854, meaning cholera was a big problem for people during 1350-1850.

Finally infectious diseases were a ~~big~~ problem also because hospitals in the early parts of this period, did not admit any people with disease or illness as they did not believe it was their job to do so. Hospitals only cared for the old and the poor with rest, food, pray, exercise and cleanliness, so people with diseases received no care and were left to suffer alone

Eventhough hospitals in the later part of this period admitted some with illness, their treatments did not help that much as the cause of disease was based on wrong ideas like miasma and spontaneous generation. Only 11 years after this period the Germ theory was published.

In conclusion infectious disease was a major problem during 1350 - 1850 because of no correct understanding of the cause of disease therefore no knowledge on how to treat it. The main ~~problem~~ reason infectious disease was such a big problem was because of the false ideas surrounding the Black Death as this wiped out a large proportion of the population.

**ResultsPlus**
**Examiner Comments**

This answer is based around the two diseases in the stimulus bullet points but the focus is clearly on reasons why these diseases were such a problem, making it a Level 3 answer.

An additional third point is included regarding the early part of this period and it accrued extra credit.

Total = 11 marks

**ResultsPlus**
**Examiner Tip**

Make sure you recognise the focus of the question - the command term 'why' shows that this is a causation question.

## *Question 6*

A problem seen frequently in this paper is the difficulty candidates have in differentiating prevention from treatment (vaccination is often described as a cure); this can mean knowledgeable candidates receiving very low marks because the information in their answer is irrelevant to the question asked.

Too many candidates either did not differentiate here, or simply saw this as a question about the role of science and technology. It is also possible that some candidates thought they could use the stimulus from Q7. Whatever the reason for its inclusion, material on magic bullets, penicillin and treatment through the NHS and through surgery could not be rewarded here.

There were also some invalid comments arising from confusion over chronology. The most common mistake here was to say that Snow and Chadwick were influenced by Pasteur's work but there was also confusion over the correct time period of Jenner and of Pasteur and Koch.

Most candidates could expand on the bullet point about Pasteur and showed how his work and that of Koch led to an improved understanding of disease. However, a surprising number did not link this with the prevention of disease through the development of new vaccinations, or with measures to prevent disease such as the Public Health Act, 1875. Some answers stated the link but could not provide specific details to support the explanation.

Where vaccinations were discussed, it was often only in relation to smallpox with no mention of 20th century vaccination campaigns against diphtheria, polio, the MMR or HPV vaccines. If information on Jenner were used to make a point about later vaccinations or government campaigns, it could be credited but descriptions of Jenner's work or explanations of why it was important were outside the timescale of this question. Some answers managed to link the NHS with prevention by discussing improved diagnosis and early treatment preventing the spread of disease but this was usually a weak point. Similarly, some answers mentioned the discovery of DNA, without being able to make an explicit link with prevention of disease. A few answers did make excellent points about the use of genetic screening of the foetus and preventive mastectomy.

Sometimes, candidates seemed to work through a prepared list of factors, including government, research teams, war and individual genius. Whilst this may be a valid approach, it is important to be able to relate each factor to the statement in the question and not simply to write about that factor in relation to developments in medicine.

A problem noted in previous reports is that candidates sometimes try to make use of their knowledge about developments in surgery (Unit 3). This question was about prevention of illness and disease – lengthy comments about the use of antiseptics and the prevention of infection in surgery missed the focus of this question.

Good answers often included the role of government but, even at Level 3, frequently they remained focused on the 19th century. Mention of the welfare reforms of the early 20th century, improved housing and hygiene, and lifestyle campaigns such as support for those giving up smoking or the healthy eating campaign, tended to be characteristic of Level 4 answers. These addressed the whole of the timescale in the question.

The role of technology in facilitating improved scientific knowledge or Bazalgette's sewer system was also offered as an additional factor, as was a change in attitudes that meant people were more willing to accept government intervention.

Level 4 answers often stressed the interaction of factors, showing that the work of Pasteur and Koch was crucial in providing the understanding of disease and then the development of vaccinations that could prevent some diseases. This would have had limited impact without the role of government to enforce vaccinations.

Similarly, some answers recognised the importance of scientific knowledge in understanding the impact of public health and lifestyle but, again, stressed the role of the government in taking action to prevent illnesses such as lung cancer or AIDs. This approach emphasised the importance of scientific knowledge providing the foundation for government action. Some candidates challenged the question by showing the importance of the work of Snow and Nightingale in the prevention of disease, before Pasteur's germ theory provided the

Following 1850, there has been a significant number of breakthroughs that have changed the approaches to the prevention of disease. ~~These have been as a result of various factors such as Science, Technology, Government and~~ I agree that the scientific understanding of disease was the main cause for the change in prevention of illness since 1850.

I agree that the increasing scientific understanding of disease is the main cause for the change in the prevention of illness since 1850. This is due to the development of the Germ Theory by Louis Pasteur and his team in 1861. This is the idea that ~~th~~ there are microbes that cause disease. Pasteur used various scientific methods to understand ~~this~~ germs, which allowed him to reach a valid conclusion on the cause of infectious disease. 1861 was a turning point for modern medicine because of Pasteur and the Germ Theory, as it allowed other scientists and the

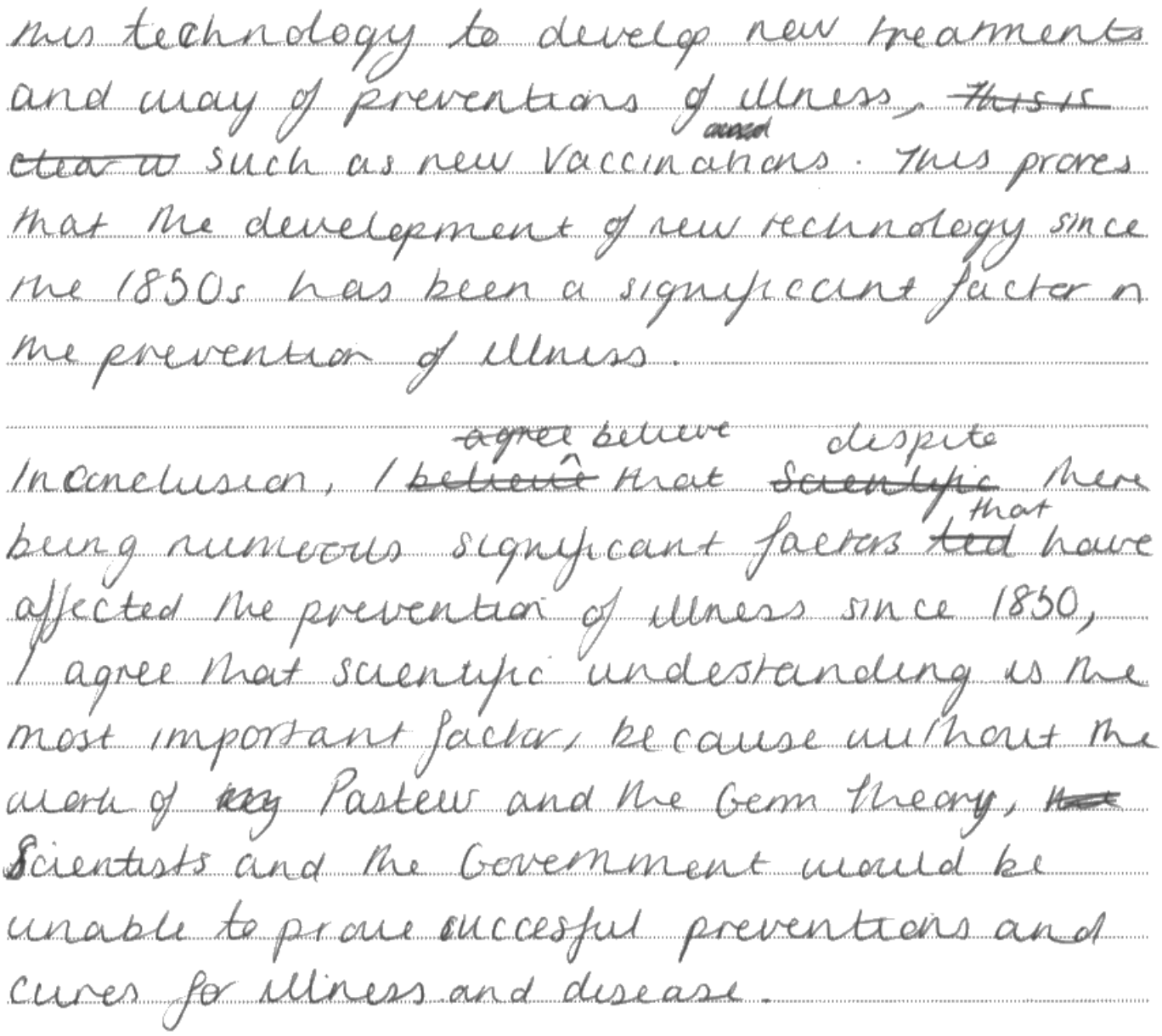
public to understand the causes of infectious disease. This understanding would enable people to develop new treatments, including a wide variety of vaccinations such as the MMR vaccine. Without the Germ theory in 1861, many preventions and cures for disease that are in use today would not have been discovered ~~then~~ which is why I think that the increased scientific understanding of disease was the main cause for the improvement in prevention of disease.

The Role of
On the other hand, ~~Government~~ the Government could also be argued as ~~the main~~ a cause for the improvement in the prevention of disease. This is because the Government made vaccination compulsory ~~in~~ ~~1853~~ in the late 1800s, so people would be forced to accept the idea of vaccination. At first, many people were opposed to Jenners ideas of ~~in~~ injecting people with ~~the~~ cowpox ~~vaccination~~ to make them immune from small pox, ~~however~~ of, which he discovered in 1796. However, over time this approach to the prevention of disease was becoming more accepted, due to Government intervention. It was made compulsory, so people were

scientific knowledge to justify their actions.

forced to accept the idea of ~~government~~ vaccination, which proves that the Government had a significant role in the prevention of illness. Likewise, various liberal Welfare reforms were introduced since the 1900s such as ~~the~~ Free School meals and the National Insurance Act. This meant the the Government ensured that the public was healthy, which helped them prevent developing illnesses. This ~~proves~~ shows that the Government had a significant role in the prevention of disease.

However, the increasing role of technology could be argued as having the biggest impact on the prevention of disease. This is because in the past, there was minimal technological developments, which meant that little could be done to prevent illness. However, since 1850, new ~~ones~~ electron microscopes have been developed, as have blood pressure monitors, MRI scanners and Ultrasounds. This means that it is easier to detect faults in the body, ~~and~~ at earlier stage. Likewise, Scientists are now able to use




**ResultsPlus**

**Examiner Comments**

This is a very thorough answer that received full marks and also 3 marks for *Spelling, Punctuation and Grammar* (SPaG).

It covers the importance of scientific understanding, government enforcement of vaccination, welfare reform and technology.

There is a sustained focus on prevention of illness (despite the occasional use of the word 'treatment') and wide-ranging examples that cover the full period in the question.

Response = 16 marks

SPaG = 3 marks

Total = 19 marks

**Indicate which question you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.**

Chosen Question Number: **Question 6** ☒ **Question 7** ☒

Since 1850, scientific understanding of the cause of disease has been a crucial factor in the prevention of illness. However, it is not the only factor, and they must all be considered.

Scientific understanding is a crucial factor. For example in the Germ theory in 1861 by Louis Pasteur. Pasteur disproved spontaneous generation and multiple other ideas with his experiment, and started to prove the cause of disease. This also led on to other discoveries, like Robert Koch identifying microbes that caused disease, and other things like the production of penicilin.

Another factor ~~that~~ that has been crucial is luck. For example with the chicken cholera experiment, where a chicken was given a weakened strain by accident and chance, and that led to vaccinations and government vaccination campaigns which saved many lives.

Another crucial factor is war. War has limited funding / conditions for important developments. For

example, when Florey and Chain were trying to build on Pasteur's work on penicilin. They discovered that it worked on humans when they tested it, but they could not produce enough of it. They turned to the English government for funding, but they couldn't provide it because of the war effort. They then had to turn to the US government.

Another important factor was technological improvements especially in more modern times, eg. often in the 20th Century. There is a lot more technology like x-rays and dialysis machines that allow doctors to be disease and illness to be identified earlier and more likely to be cured.

In conclusion, I think that there are multiple factors that have been integral in the prevention of illness, and they have all helped in different ways. However, I do agree that scientific understanding of the cause of disease is the most important - especially Pasteurs germ theory in 1861, because it was an extremely important breakthrough, and it completely changed ideas about medicine, and ideas following on from that have used the germ theory as

a starting point.

**ResultsPlus**
**Examiner Comments**

This answer is typical of many where knowledegeable candidates do not achieve high marks.

The sections on penicillin, war, and technology are all about **treatment** whereas the question is about **prevention** of illness.

Response = 7 marks

SPaG = 2 marks

Total = 9 marks

**ResultsPlus**
**Examiner Tip**

Make sure you know the difference between **prevention** and **treatment**.

## *Question 7*

Here, again, many candidates failed to differentiate between prevention and treatment but in most cases this did not have as significant an effect on the mark as in Q6. However, there was a number who said that penicillin was a painkiller and confused antibiotics with antiseptics.

Most students could describe confidently the work of Fleming, Florey, and Chain in the development of penicillin but they did not all explain why penicillin was important for treatment or go beyond its use during the Second World War. Many answers also took this opportunity to discuss the various factors involved and to say that the work of Fleming, Florey, and Chain would not have been important without government funding or the technological ability to mass-produce the drug. However, for some candidates, this led into a discussion of who was most responsible for this development and a discussion of other factors involved, which missed the focus of the question on why *treatment* of illness changed. This also tended to make it difficult for examiners to identify a third aspect from the candidate's own knowledge being used to answer the question.

The work of the NHS was often well-described in general terms but with few specific examples. Answers sometimes explained the work of Bevan or the opposition to the NHS, rather than focussing on its role in treatment. Many candidates seemed to think it was necessary to link the NHS with penicillin rather than using this bullet point as an alternative reason for changes in treatment.

Many answers were remained in Level 2 or low Level 3 because they provided description rather than recognising the focus on the issue of change. For example, whilst many asserted that treatment being freely available on the NHS was important, there were few answers that showed the change from payments to doctors and treatments at home, or at cottage hospitals, or the change from the situation under the National Insurance Act, 1911.

The most common third aspect was 'magic bullets' but often answers described the work of Ehrlich and Hata rather than explaining why the development of magic bullets was significant for changes in treatment. It should be noted that research into DNA and genetic conditions has not yet resulted in freely available treatment and therefore comments about the work of Crick and Watson did not usually result in any additional marks.

In the same way, comments about the use of technology needed to be clearly linked with treatment, as in radiotherapy and dialysis, rather than an explanation of the importance of technology for diagnosis. Surgery as treatment for disease and illness could be valid, here, but a description of modern surgery and improvements in aseptic techniques etc was not relevant.

There were difficulties with chronology: some candidates thought that penicillin predated magic bullets, that the NHS predated the discovery of penicillin or they wrote about Florence Nightingale and Pasteur.

Examiners commented that answers to Q7 were often more tightly-focussed on the question than answers to Q6 but were limited by a failure to bring in a valid third aspect from their own knowledge.

Good answers weighed the importance of magic bullets, which treated a limited range of illness, against the broader range of penicillin and then against the role of government in funding research and setting up the NHS. Valid points were also made to show that treatment improved as a consequence of technology and better diagnosis, which then allowed early intervention.

**Indicate which question you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.**

Chosen Question Number: **Question 6** ☒ **Question 7** ☒

I do not believe that the discovery of penicilin was the main reason the treatment of illness changed however it was due to many factors and key individuals work which came together to create a ~~goo~~ high standard of medical treatment.

Fleming was a doctor who accidently discovered penicilin when he was on ~~ta~~ vacation. He is described as an observer as he ~~made~~ didnt attempt to use penicilin for medical treatment and he was unable to get other doctors to share and support his work because he was a poor public speaker. However Florey and chain decided that penicilin could be ~~a~~ useful in medical treatment but the English government werent able to give them funding to produce penicilin because they

they were too busy fighting the war and funding the army. Therefore Florey and Chain went to America and with the company 'Fizer' they mass produced penicilin which was used in the war ~~to~~ to wounded soldiers.

The NHS was developed in 1948 as the Government decided they need to increase public health after the war. The NHS gave everyone free healthcare and was adored by the people of England. However it did have ~~so~~ opposition such as from doctors who don't want to be on salary and preffered having their own rates for medical treatments. After many reports about poverty from key individuals such as Charles Booth ~~and Beveridge~~ and the 'Great stink' the Government decided to intervene therefore the NHS was created.

Paul Ehrlich developed his magic bullets which killed

bacteria and treated diseases without harming the patient he ~~was~~ discovered salvarson 606 which treated ~~syphilis~~ patients from syphilis. He ~~was~~ ~~used~~ had a team of people who attempted to create treatments to specific diseases much like Robert koch however Ehrlich understood how & disease and infections were spread due to Louis Pasteurs germ theory therefore he had a lot of scientific knowledge and his magic bullets helped save alot of people from life-threatening illnesses.

In conclusion I dont agree that the discovery of penicillin was the reason why the treatment of illness changed as it for treatment to change many factors needed to be done and & scientists had to work together to overcome the various problems which was stopping medical treatment advancing. Key individuals such

as Paul Ehrlich, Louis Pasteur, Fleming had a much bigger role than penicilin as they developed ideas ~~and~~ and helped treat illnesses ~~saving~~ allowing people to work on their ideas and develop them so that medicine and medical knowledge could advance and improve.

**ResultsPlus**
**Examiner Comments**

This answer provides detail about penicillin and the NHS but it does not recognise that the focus of the question was about improvements in treatment.

The details about Booth and the Great Stink are outside the period of the question and the comment about Ehrlich is not developed.

The candidate seems to have tried to use the stimulus material from other questions but this was not relevant here.

This answer is very descriptive.

Response = 8 marks

SPaG = 2 marks

Total = 10 marks

**ResultsPlus**
**Examiner Tip**

Do not try to use stimulus material from another question - it is not usually relevant and can mean your answer strays away from the question that has been asked.

**Indicate which question you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.**

Chosen Question Number: **Question 6** ☒ **Question 7** ☒

I agree to some extent that Fleming's discovery of penicillin was the main reason why the treatment of illness changed, although there were other factors involved. However, Fleming's discovery was an important reason because it led to Florey and Chain developing a pure version of penicillin from the mould juice that Fleming himself had been unable to do. This changed the treatment of illness because it meant that microbes could now be killed inside the body without harming human cells, curing many diseases like tonsillitis.

In addition, Fleming's discovery could be the main reason why the treatment of illness changed because it was a vast improvement on the work of Ehrlich. For instance although Ehrlich and Hata found a cure for syphilis with Salvarson 606 in 1909, it was very specific to that germ and therefore wouldn't kill anything else. It was also insoluble, so it was difficult and painful to inject. However, Fleming's work changed this because penicillin was available in tablets form, and as such far easier to take, which changed the treatment of disease because it allowed

more people to benefit from it.

Another reason why Fleming's discovery is the main reason for change in the treatment of illness is because of how easily accessible it was. For example, during the Second World War, Florey and Chain persuaded American chemical companies to mass-produce penicillin after they joined the war following Pearl Harbour in 1941. This meant that by 1944, there was enough to treat all Allied soldiers who participated in D-Day. This shows that Fleming's discovery changed the treatment of illness because it meant that vast amounts of people could be cured, rather than on a small scale through discoveries like those of Ehrlich.

However, government was a major factor in the change to treatment of illness. For example, when the NHS was set up in 1948, it meant that the whole populace was entitled to free medical care. This changed the treatment of illness because it meant that funding from the government went into medical research as a branch of the NHS, inspiring new discoveries and technology to

be developed, such as an MRI scan.

Furthermore, DNA was also a key factor in changing the treatment of illness in the 20th century. For example, Crick and Watson discovered the double-helix structure and published their findings in 1953. As it was the key to genetics, it meant that genetic disease could be diagnosed and cured for the first time. This shows that it was a key factor in changing the treatment of illness because a whole new area of cures opened with the discovery of the caused of diseases like cystic fibrosis, as it is passed on genetically.

Finally, technology was also a key factor in changing the treatment of illness in the 20th century. ~~For example, CAT scans in the 1970s meant that brain activity could be measured. For example,~~ In 1953 an machine was invented that monitored heart rate. This shows that technology was a key factor because it allowed monitoring to take place, meaning that treatment

could be carried out safely.

In conclusion, while Fleming's discovery revolutionised the treatment of disease through antibiotics, there were other factors involved. As these factors inspired medical change, like DNA, and allowed Fleming's work to be continued in the case of technology, it means that Fleming's work was not the main reason, but certainly an important one

**ResultsPlus**
**Examiner Comments**

This response is a useful example of a Level 4 answer that is not perfect but which does address the question.

Although Fleming did not make penicillin available in tablet form, the explanation that tablets are easier to administer than injections is a valid point; the answer also explained that penicillin treated a wider range of diseases than magic bullets.

The comments about the NHS making treatment available, the role of government in funding research for improved treatment, and the role of technology in treatment, are not well-developed individually.

Nevertheless, the breadth of the answer allows a line of argument to develop that is focussed on the question and that led to the conclusion that Fleming's discovery 'revolutionised' treatment.

Response = 15 marks

SPaG = 3 marks

Total = 18 marks

# Paper Summary

**Spelling, punctuation and grammar.**

A number of examiners commented on the problems caused by poor handwriting, sometimes not even on the lines in the answer booklet. Quite apart from affecting the SPaG mark, if letters and punctuation cannot be identified, poor handwriting causes the examiner to lose the flow of an argument. This is becoming a serious problem at all levels – if the writing is difficult to read an examiner will not be able to understand a badly-expressed answer.

Examiners also commented on the frequent lack of capital letters for names.

There is a number of difficult words in this specification but candidates should be able to spell key names and words such as Fleming and penicillin, especially when they were included in the question.

Punctuation was often basic, only commas and full stops; apostrophes were regularly missing or misused.

Candidates should appreciate that the use of paragraphs not only contributes to SPaG marks but also help to make an argument more structured. Far too many answers consisted of one extended paragraph.

There was little use of 'textspeak' but the use of 'would of' and 'he done' is still fairly common.

Interestingly, there were signs that candidates made an attempt to improve their SPaG on Q6 and Q7, with trial spellings, corrections and reminders clearly visible at the start of some answers.

**Conclusion**

Generally, candidates responded well to the new format of the question paper. Where marks were lost, it was often as a result of ongoing problems highlighted in previous sessions – confused chronology and failure to analyse and respond to the specific question – rather than a problem associated with the changed examination paper.

However, although there were relatively few blank answers, a large proportion of them were on Q3, which should have been familiar to candidates if they had looked at past Unit 3 examinations. In the extended answers it was pleasing to see additional knowledge being brought in by many candidates.

As always, examiners commented on the truly impressive standard produced by a number of candidates – such answers are a pleasure to read.

Based on their performance on this paper, candidates are offered the following advice.

- Check the command term in the question and plan an answer responding directly to the focus of the question, not just the topic or the factor identified in the question
- Use the mark allocation and available space as a guide to how much detail should be included
- Do not waste time and paper by writing an introduction that describes the source(s) involved or which restates the question
- Make sure you write about the correct timescale in the question
- Identify the target concept – is the question about causation, change and continuity, consequences, comparison, significance, evaluating the extent of change etc. Each of these requires a different approach and while the same material may be relevant, it should be deployed in a different way

- Include supporting detail and explain how it supports the comment you are making
- The stimulus bullet points will usually guide you towards two different sides of the issue or the full range of the timescale
- The conclusion should evaluate the strength of the evidence on each side and explain how a judgement has been reached

## Grade Boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:

http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx

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