

# Examiners' Report January 2013

## GCSE History 5HB03 3A

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## Introduction

This was the seventh series of this Schools History Project Source Enquiry on The Transformation of Surgery c1845–c1918. The focus of the enquiry was whether opposition to new ideas was the main reason why surgery changed slowly during this period. Most candidates were able to produce responses that were worthy of some credit and many produced answers that were well argued, developed and supported by additional recalled knowledge (ARK) and use of the sources provided.

There was continuing evidence that more candidates were able to access all five questions. Few responses produced answers that were not worth at least basic-level marks. As in all previous series, achieving high Level 4 marks on Q5 was more challenging than attaining top levels in Q1–Q4. In this series of the specification there were three additional marks in Q5 for SPaG. Failure to answer Q5 therefore cost candidates a potential 19 marks. This alone should encourage candidates to ensure that they allocate their time to concentrate their efforts in proportion to the mark tariff available for individual questions.

There was evidence that centres are responding to advice given in previous reports. There were far fewer blank responses to questions and fewer candidates mistakenly used the last page allocated to Q3 for their response to Q4. Most candidates made reasonable responses to Q1 and Q2 but many failed to access Level 3 in Q3, usually struggling to cross-reference the sources and instead describing what each source said or showed, one after the other, without the required cross-referencing. Few candidates succeeded in commenting on differences in content while at the same time commenting on how much support for the hypothesis in the question was provided by the nature and provenance of each source. Q4 produced many answers that were good on content but made little or no reference to a source's nature, origin or purpose. Moreover, many comments on utility focused on simplistic learned responses and ARK was often thin or non-existent in responses to Q5.

Timing was generally less of a problem for candidates than in earlier series. However, some candidates produced answers that were overlong in response to Q1 and Q2, which left them with difficulties completing developed answers to Q3–Q5. There were fewer, although still too many, responses that considered all primary sources reliable and useful and all secondary sources made up and therefore worthless. A surprising number of candidates continue to express a negative view of historians and history books and to put faith in the veracity of people who were there at the time.

## Question 1

Most candidates were able to achieve at least a basic Level 3 on this question, and many provided a high Level 3 answer. A few provided only a description of the source (Level 1); some made inferences without using the source (Level 2); but most were able to infer something about the concern for hygiene or lack of it in the drawing. Other answers made valid inferences but did not support them by explaining which details in the source formed the basis for this inference.

Comments about operations as entertainment or education for medical students, and the suggestion that the source may have been depicting a demonstration of the use of anaesthetics, were frequently supported by a brief reference to the fact that people were watching the operation. The suggestion that anaesthetics prevented pain and made operations easier for both the surgeon and the patient, and the observation that there was some recognition of the importance of hygiene, were also common inferences. The caption stated that an anaesthetic was being used in this picture so this was not an inference, but many suggested it was being administered by inhalation from a rag placed over the patient's face, which was a valid point. The use of anaesthetics was generally supported with comments on the patient's calmness and the 'cloth over the mouth'. Some took this point further by mentioning that the cloth shows that 'the inhaler has not been invented yet and they did not know how to dose the anaesthetic'.

A few candidates commented on the number of medical staff dealing with the patient, recognising teamwork and a certain level of organisation in the operating area (eg everyone has their own specific task). Among them, several pointed out that all the medical staff were male, ie 'there was no place for women in surgery'.

Many answers began by describing the picture and then making an inference, but the best answers stated the inference and then linked this to specific details in the picture. For example, the inference that this was a demonstration of a new technique was supported by the interest of the spectators, many of whom are leaning forward and one of whom is using opera glasses or binoculars.

To support teaching and learning:

- Candidates should be encouraged to start by making an inference and then to support it directly from the source. This should be followed by an explanation of the implications of this inference.
- Candidates need to remember that more than one inference is needed for full marks.

## 1 Study Source A.

What can you learn from Source A about operations in the mid-nineteenth century?

(6)

Source A shows that spectators have gathered to watch an operation be performed, all wearing suits and regular clothing. From this, I can infer that operations were of interest to people at the time - we can see some standing up for a better view, suggesting it was something they considered important. The everyday clothes of the spectators also implies that the issue with infection was not yet understood fully. The doctors appear calm as they give the patient the anaesthetic, suggest from which I can infer that operations were now <sup>often</sup> safely carried out with anaesthetics. The doctor checking the pulse of the patient shows that ~~procedures are~~ doctors were aware patients could pass away quietly while unconscious, and operations were carried out attentively to prevent this.



**ResultsPlus**  
examiner comment

This response makes some clear inferences: this operation was important and there were possible problems with infection. These are supported by the source and so the candidate achieved maximum marks, a Level 3.



**ResultsPlus**  
examiner tip

Each inference should be supported by reference to detail in the source.

## Question 2

This question was usually well done. Candidates were able to identify loaded language such as 'dreadful' and 'great suffering' and practically all of them commented on the comparison to a condemned criminal. There was also a good understanding of the way that the source built up the tension, with the sense of a countdown to the operation, the awareness of each step in the process and the intensifying dread.

Many reached Level 3 through an explanation of how the language and treatment of detail in the source contributed to an overall portrayal that emphasised the horror of operations before anaesthetics. It was also pleasing to see that many answers offered a conclusion that explicitly identified the role of the cumulative effect of details in creating the overall impression.

Although a majority of the Level 3 answers mentioned the comment about chloroform, only a few went on to recognise that the juxtaposition of the author's experience with the comment that anaesthetics would have spared him this pain and horror created the impression that the use of anaesthetics was seen as a miracle cure.

Very few candidates in fact made a link to the use of anaesthetics. The few who did made reference to how the author was a supporter of anaesthetics due to his own experience of a painful operation. One candidate linked this to the source's tone, pointing out that the author was 'bitter' because anaesthetics had not been available to him and, had they been, they would have spared him the trauma of the operation.

Some candidates mentioned the speed of operations by discussing the limb on the floor and linking it to the earlier point about the first cut, which showed that the surgeon acted quickly.

To support teaching and learning:

- Candidates should be reminded to analyse individual details in a source but link them to the overall impression created. In many ways, this is a more developed version of Q1.
- Candidates need to infer the overall impression and identify the parts of the source that create that impression but also to analyse the way that language and treatment of these details combine to produce that effect.
- Candidates need to have a clear idea of the difference between an impression and a message and make sure they address the correct aspect in answering the question set.

## 2 Study Source B.

What impression has the author tried to give of operations before the introduction of anaesthetics? Explain your answer, using Source B.

(8)

The author of Source B has tried to give the impression that operations were terrifying, before the introduction of anaesthetics. The author states that a patient~~s~~ waiting for an operation ~~was~~ "was like a condemned criminal preparing for execution." The comparison creates an image in the reader's mind of someone completely frightened, awaiting their death sentence. By doing this, the author convincingly presents operations (before anaesthetics) like an execution, ~~at least~~<sup>even</sup> suggesting that ~~they were~~ operations were likely to result in death.

Throughout Source B, the author uses descriptive imagery to ~~create~~ portray operations as so horrifying; "I listened for the surgeon's carriage, the sound of the doorbell, his footsteps on the stairs." The author encourages the reader to imagine feeling so terrified - giving the clear impression of how dreadful such operations were. He also exaggerates his description, in order to give an even more convincing impression.

The author also suggests how essential the introduction of anaesthetics were, stating that he could have avoided the dreadful experience of the operation "by the use of ether or chloroform." ~~He~~ The author ~~overstates~~ presents the anaesthetics as life-saving, ~~a~~ stressing how important the introduction of them was, in order to avoid the operations without them.



**ResultsPlus**  
**examiner comment**

This is a good Level 3 response that clearly grasps the impression the author tried to give. Good use is made of quotations from the source and the build-up of tension they convey.



**ResultsPlus**  
**examiner tip**

Make sure you clearly understand the difference between impression and message.

### Question 3

A number of candidates failed to realise that Sources A and C were about anaesthetics and Source D was about antiseptics so, when they tried to cross-reference between the sources, their comments were sometimes invalid. However, most candidates did realise that this question was about more than one development in surgery.

A few answers simply repeated details from the sources and a minority of candidates included their own knowledge, which cannot be rewarded here. Most answers covered all three sources and were able to reach at least Level 2 by identifying details that suggested new developments were/were not a success. There was evidence of good teaching in that a number of answers at Level 2 showed an awareness of the need to consider reliability in order to assess the weight of evidence. Unfortunately, when the sources are explored separately in an answer, it remains at Level 2 and these additional comments make little difference to the mark.

A number of answers edged into Level 3 in their conclusion, where they attempted to pull together the comments on each source and assess the degree of support for the hypothesis. The most successful answers, however, were those that did not just work through a checklist of each source before assessing the extent to which the sources suggested the new developments were successful. These high-level responses were often characterised by an introduction that addressed the sources in combination and then made frequent links between sources throughout the answer. This approach was made particularly suitable by Source C, where Dr Cree described ether as a 'great blessing' but reported that Professor Syme opposed its use because it caused delays.

Comments based on careful analysis and cross-referencing of the source content frequently pointed out that the opposition in Sources C and D did not suggest that the discovery was a failure in itself but that there were unwelcome complications and side-effects. It is at this level, when the sources are being used in combination, that comments about reliability or the origin of the source become particularly relevant. It was therefore extremely pleasing to see a number of answers comment on the fact that Source C was written at an early stage in the development of anaesthetics or that we have no way of knowing whether the operation in Source A had a successful outcome or represented standard practice.

When candidates showed evidence from the source to support their answers, responses were well developed and coherent, and both the nature and the authorship of the sources were acknowledged. Some candidates were less able to demonstrate cross-referencing or reach a judgement in their answers. A number of candidates focused only on the content of sources with little, if any, in-depth exploration of the nature of the sources. Those candidates attaining Level 3 were more successful in their analysis of the sources; those obtaining Level 2 either matched, or gave examples from, the sources to support/challenge the view that new developments were successful in improving surgery.

To support teaching and learning:

- Candidates should avoid treating sources individually as this rarely allows them to rise beyond Level 2.
- Candidates are more successful when they look at the overall package of evidence from the sources in this question.
- Centres need to address the skill of cross-referencing so that more candidates can achieve Level 3.



(Question 3 continued) germ theory was published in 1861. This drawing is very ~~much~~ much for developments in surgery and due to it being in the mid nineteenth century could be considered propaganda for those against anaesthetics, antiseptics and Louis Pasteur's germ theory. This picture could have just as much being advertising the new ways of surgery and enlightening people.

Source C is a first person account and is most likely very reliable as it has nothing against the use of anaesthetics, in this one; ether. From this source we can see that the man thinks highly of ether, as he calls it "a great blessing" this shows developments in surgery were good ones in his eyes but in another surgeon's return "delays" operations.

These sources contradict each other massively. D suggest ~~the~~ carbolic spray (a development) was regressive and that it did more harm than good - even mentioning how it "cracked" doctor's hands due to it being irritant to skin. Whereas A shows ~~the~~ all developments being highly effective and that it caused a smoother operation experience when combined with chloroform. C shows us both sides although the author feels more as if it is a good thing to have developments like ether around.

(Question 3 continued) D is very dissuading ~~where~~ to conclude whereas A and C show the developments in light



**ResultsPlus**  
**examiner comment**

A well-argued Level 3 answer that effectively cross-references all three sources to produce a balanced judgement. In doing so the response makes use of extent and nature of the support given.



**ResultsPlus**  
**examiner tip**

Remember to use all three sources and to avoid commenting on them in isolation.

## Question 4

This question continues to pose problems for many candidates. A large number of answers were about whether x-rays were important or useful, with candidates failing to understand that the thrust of the question required them to consider the value of the sources as evidence to be used by the historian. Further complications were caused by the fact that Source E said that x-rays were unreliable and a number of candidates appeared to think that Source E was written by Röntgen. They also did not always appreciate the distinction being made in Source E between diagnosis and treatment, with many asserting that Sir Robert Jones thought that x-rays had no use.

The vast majority of answers remained at Level 2. Candidates tended to select and repeat details from the sources – the implication was that such information was self-evidently useful to the historian – but few really developed their comments on why or how that content helped to answer the historian’s enquiry. Some were also side-tracked and talked about the value of Source F in telling us about the position of women in medicine.

A few candidates discussed the limitations of the content, in particular when commenting on the photograph, but many of these comments remained undeveloped, simply stating that the photograph: was a single moment; didn’t tell us whether the x-rays helped treatment; didn’t tell us how many x-ray machines were in use at that time.

Some good comments were made about Source E, with many noting that this was an opinion expressed at a very early stage, but there were also many who dismissed it as a biased opinion. The concept of bias (and the spelling of ‘biased’) is one that many candidates find difficult. They tend to simplify it to mean that anything that expresses an opinion is one-sided and therefore unreliable. While able candidates commented on Source E’s balanced approach, stating the benefits of x-rays while noting that they did not improve treatment, weaker candidates saw only the negatives.

To support teaching and learning:

- Candidates should go beyond describing the content of sources, which they often do well, to examine the value of a source’s nature.
- After they have dealt with the content of a particular source, candidates should probably stay with the same source and comment on its reliability and utility. Generalisations about primary sources being better than secondary sources or that ‘photographs never lie’ should be avoided.
- Candidates should ensure that the focus of their response is specific to the historical investigation specified in the question.
- Candidates would benefit from exploring the various aspects of a source’s nature and recognise the fact that it is not always possible to state beyond doubt whether a source is biased/reliable, etc.

#### 4 Study Sources E and F.

Which of Sources E or F is more useful to the historian enquiring into the importance of x-rays in surgery? Explain your answer, using Sources E and F.

(10)

Source E would be useful to a historian enquiring into the importance of x-rays in surgery. It shows the progression of x-rays as they started off as an unreliable image but are now very accurate.

~~Source E shows us that although x-rays could help to diagnose what was wrong with a patient, they did not actually help with the treatment of that patient.~~

Source E shows us that although x-rays could help to diagnose what was wrong with a patient, they did not actually help with the treatment of that patient.

X-rays were first viewed as an easy way for medical students to diagnose patients.

I think source E is accurate because it is given by a surgeon making the first use of the discovery of x-rays and giving his opinions of them. However, it is only the opinion of one person. Different surgeons may have had different attitudes and opinions towards x-rays. So although it would be helpful to a historian enquiring into the importance of x-rays, it only gives one example of them being used and one opinion towards this.

(Question 4 continued)

Source F would also be useful to a historian because it shows what x-rays looked like in 1914-18, how they were taken, who they were taken by and what they were used for.

Source F is accurate because it is photographic evidence of an x-ray machine being used. It is quite reliable because it is evidence but again only shows one example of how they were used. There is no statistical figures in this source that would be useful in describing the importance of x-rays in surgery.

In my opinion, I think Source F is more useful to a historian in showing the importance of x-rays in medicine because it actually shows an x-ray machine in use and tells us what kind of injury it was used for.

Source E is not as useful as it only describes the very first use of x-rays and how these would be opposed by surgeons.



**ResultsPlus**  
**examiner comment**

A response that successfully combines comments on both content and nature to produce a logical judgement of relative utility. This is a Level 3 answer.



**ResultsPlus**  
**examiner tip**

Avoid simply repeating what each source says and avoid simplistic comments on bias.

## Question 5

There were some blank scripts on this question (and also some blank answers on earlier questions, which candidates had presumably skipped in order to reach Q5). Time management is crucial in this examination since the enquiry works through the sources to culminate in this final question.

The focus on opposition to change in this question caused a number of candidates difficulty, with some producing answers that focused on opposition to Lister. Others ignored the issue of opposition to new ideas and instead talked at length about the developments themselves.

Many candidates adopted a checklist approach and worked through the named sources in relation to the question, then added some extra detail. Such an approach fails to create any sense of a reasoned response and is likely to remain at Level 2. Other answers did not score highly because they did not analyse the question: many simply wrote about progress in surgery but the question was about the reasons why progress was slow. Some candidates challenged the premise that surgery was slow but this approach did not recognise the emphasis in the question about whether opposition was the 'main reason' for slow change.

Analysing the question is therefore an essential first step and those candidates who did this usually reached Level 3. Their mark within Level 3 usually depended on whether they had taken note of the instruction to use Sources C, E and G and their own knowledge. Additional detail supplied at this level often consisted of mentioning the dominance of religion ('God wants us to feel pain') and/or of referring to Queen Victoria in childbirth. Other responses pointed out the danger of anaesthetics (Hannah Green's overdose), the lack of technology, knowledge and finances, and the role of communication to explain why surgery changed only slowly. Factors in support of change included the introduction of blood banks and the foundations of antiseptic surgery. Only a few candidates introduced sections featuring their additional recalled knowledge (ARK) with the phrase 'From my own knowledge I know...' However, the main characteristic of Level 3 was that the material was manipulated into an overall argument – sources were used in combination, the candidate's own knowledge was worked in with the sources instead of being a stand-alone paragraph, and the answer had a sense of being planned, so that comments led on from one another instead of being just a list of points.

At Level 4, answers had to specifically address the emphasis on opposition as the main reason for slow change and alternative factors were offered, such as lack of knowledge about infection before Pasteur's germ theory or about blood groups, and lack of suitable technology to regulate the dosage of anaesthetics or to provide an alternative to Lister's antiseptic techniques. Some used the rapid progress during World War I to argue that there was a lack of urgency before the war and others blamed the lack of government funding. Once again, planning was fundamental. Many plans were basic lists of sources and details under two headings, but links drawn between different items showed how an overall sense of argument was created.

Answers to Q5 were very much source content-driven. Many statements about the nature of the sources read like 'afterthoughts' – often squeezed into the conclusion – and were frequently simple copies of the captions or 'learned answers'. Typical comments included: 'this is a primary source, so the person must have been there at the time' / 'it was written by a surgeon, so must be biased' / 'it was published in a GCSE text book, so must be reliable'. Few candidates expanded on these statements, eg 'it was written by a surgeon, so must be biased, **as he had an interest in promoting x-rays**' (or similar). Other statements regarding the nature of the source

were contradictory, demonstrating that the candidate simply did not understand the issues of reliability, bias, etc.

Analysing the question, planning a response, reviewing the sources and adding in own knowledge at appropriate points are all important steps towards success. A well-planned, succinct answer covering 1½ sides could attain Level 4 while a long, descriptive answer, using the same material, would remain at Level 2.

To support teaching and learning:

- Candidates need to leave themselves sufficient time to approach this question properly.
- Candidates **must** recognise that they need to use sources and own knowledge for Q5.

**\*5 Study Sources C, E and G and use your own knowledge.**

**Spelling, punctuation and grammar will be assessed in this question.**

'Opposition to new ideas was the main reason why surgery changed slowly in the years c1845–c1918.'

How far do you agree with this statement? Use your own knowledge, Sources C, E and G and any other sources you find helpful to explain your answer.

(16)

Source C, supports this statement strongly. Although it was a breakthrough in surgery (solving the problem of pain) opposition to anaesthetics hindered their use greatly. Source C tells although that anaesthetics were infact a blessing, opposition held them back as surgeons were reluctant to use them. Professor Syre, a leading surgeon, opposed them as he believed ether delayed surgery and no one was certain of its effectiveness. Leading surgeons opposing new ideas effected the use of new ideas, as alot of other surgeons listened to them and followed their work. Source C, says that the method of ether was still in its early days. Using my own knowledge, I know that improvements in anaesthetics made them more safe to use (such as John Snows chloroform inhaler) so people were more willing to accept new methods. Often

methods had to be improved so they could be accepted and make a big impact.

Source E, shows how people did not trust new developments as they were unsure if they were always reliable. Sir Robert Jones says that although the development of X-ray images were useful, old methods should be kept in case it is not reliable. A lot of surgeons felt the same toward new ideas. Surgery was often hindered as although new developments were made, surgeons wanted to stick with old familiar methods; ~~update~~ ~~update~~ they felt as though they could not trust new methods.

Source G, shows that new ~~developments~~ developments may not have always been perfect and clearly showed flaws. Although Lister was obsessed by anti-sepsis he still did un-hygienic things like wearing

ordinary clothes whilst conducting surgery. Other surgeons were confused by things like this, so didn't feel reassured by new developments. As a result, a surgeon may oppose these ideas and not use them. Furthermore, new developments may also be replaced with better ones. Carbolic acid was replaced by aseptic surgery ideas. People surgeons may be willing to simpler more effective methods. New developments may not always have been of great use.

To conclude, I agree completely with the statements. Even good developments were hindered by opposition to them.



**ResultsPlus**  
examiner comment

A lower Level 4 answer, which explored support both for and against the hypothesis.



**ResultsPlus**  
examiner tip

Make sure you leave adequate time to do this question.

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