Examiners' Report

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GCSE History 5HB03 3A

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Introduction

This was the eleventh series of this specification and the second of the revised 2013 version. It is one of three similar Source Enquiries. Each unit follows a common pattern both in terms of the sources used, questions asked and the nature of the mark schemes. Centres seemed to have responded well this series to this paper. More emphasis is placed on the candidates' own knowledge of the topic and their ability to deploy it effectively in response to the questions asked. They should be able to use their own knowledge of the transformation of surgery and use their ability to analyse and evaluate historical sources. The mark scheme will reward both but significantly at the higher levels of questions 2, 3, 4 and 5. Generally all that changes each series is the context provided by the sources used and the particular focus of the questions set.

To access the highest marks of Level 3 and to access all of Level 4 both are needed. The paper was broadly comparable to other units and was sat once again by more candidates than the other two units 3B and 3C.

There was as in the last series an increase in candidature in all three units. The Paper performed well and there is evidence that most candidates were able to demonstrate positive achievement on all questions. Many candidates demonstrated knowledge of surgery in the period and the work of Lister in particular.

The focus of questions 2, 3 and 4 caused some candidates problems but fewer than in the comparable series last year. It was felt that the questions worked well and should have presented few problems for well-prepared candidates. Some of the work seen was exceptionally good. Responses to question 4 also produced some basic learnt responses such as all primary sources are reliable, unlike material produced later. The most challenging question was the last question (no.5) but here there was much less evidence than in previous series of candidates failing to at least tackle this question. The lack of own knowledge in question 5 was as in previous series a problem to accessing the higher marks in Level 3 and all of Level 4. Many who merely made use of the sources provided were unable to proceed beyond Level 3 and 10 marks. However few candidates scored very low marks on the paper. Failure to answer this question meant that candidates lost the chance to access 19 possible marks.

Question 1

Generally, as is the case every year, this question was reasonably well done by most candidates. Many candidates were able to reach Level 3 and most supplied at least one clear, supported inference.There were a number of sophisticated answers which remained at Level 2 because, although they were accurate, they failed to link their inferences to the source. Candidates are reminded that they need to show the evidence from the source to back up the inferences that they make, either in the form of a short quotation or by reference to a specific place in the source. This question was often done very well by candidates who were clearly comfortable with this style of question and the way that they should approach answering it. The majority of responses gained a level 3, suggesting that even less able students are able to achieve well on this question. Some candidates did struggle to achieve the very top of level 3 (6 marks) as this required 2 or more supported inferences, and many did not move beyond 1 supported inference. This singular inference was often to do with hygiene, either the unhygienic nature of surgery (based on the coat), or the lack of knowledge about germs (based on the coat). Where candidates used both of these they were able to achieve full marks, as both lack of knowledge and lack of hygiene count as separate inferences.

However, candidates struggled significantly to come up with a supported inference based on "more harm than good". More able candidates were able to use this quote to suggest that death rates were high, however the majority of candidates merely restated that surgeons caused more harm than they solved. Centres should encourage students to look beyond words used in the source to make an inference. It would also be beneficial for centres to encourage students to make two completely separate inferences (e.g. one on infection, one on death rates) to enable candidates to achieve their full potential on this question. The difference between a lift and a proper inference on this question doesn't have to involve large paragraphs – a small sentence slightly rephrasing the source can make a lot of difference: "did more harm than they did good" (lift from source) vs "caused more deaths than they prevented" (inference).

Question 2

The best answers to this question contextualised the source in its historical time, and imagined/re-envisioned what it told a contemporary audience. They were thus able to describe the purpose of the source quite well.

They usually achieved this by taking into consideration, and explicitly mentioning and making use of, the details in the caption to the source which related to its provenance: its production, form, date, and author e.g.

These candidates clearly understood the difference between a contemporary audience of the source, and the 'modern historian' or reader of today.

Candidates who wrote poor answers often misinterpreted who 'the audience' was and assumed it to be a modern-day historian.

Thus they read the source for knowledge about the period and wrote about what the source tells or shows without speaking of its purpose.

They did not view the contents of the source to be shaped by the purpose of the source for the contemporary reader/audience and they took no notice of the clues the caption of the source gave about its purpose.

It appears that one major hurdle for pupils in answering this kind of question about purpose is a basic misunderstanding about any source's contemporary producer and audience.

One major implication for teaching for this question therefore, is that in lessons on purpose teachers should inform pupils that when making statements about the purpose of the source, they must look carefully at certain aspects.

These include: 1) its date and how that relates to the historical period under study 2) its author 3) its form (e.g. book and newspaper).

Pupils should be encouraged to think about which individual, or what organisation reads / sees /watches /hears this speech, article and book.

Pupils could then be told to answer the question 'what did the information in this source mean to the audience at the time it was produced?'

This question tended to be poorly answered by a number of candidates who approached it as a reliability question and spent a lot of time picking apart the provenance of the source to judge its reliability. While it may help to assess the purpose if one is aware of the potential bias of the source it is a way in which candidates can get bogged down in detail without contributing towards answering the question. Centres should encourage students to read the question at least twice and to use everything they put down on the paper to be relevant to the question asked and tied back to it.

An example of what is being looked for in L3: The source was produced to show the use of anaesthetics and Snow's chloroform inhaler during surgery and to teach medical students how to administer the anaesthesia properly (purpose/WHY/WHO), pick out details such as a calm patient and the mask being held over the patient's face (context), use own knowledge about fears about anaesthetics, and demonstrate why Snow's chloroform inhaler was an important development which should be properly used, and how it's better than the previous conditions of awake screaming patients (explicit own knowledge), connecting this to the development and promotion of anaesthesia (purpose/WHY) and persuading surgeons to use anaesthetics more despite some deaths/opposition from religious groups (explaining the purpose/WHAT IMPLICATIONS). Candidates should be encouraged to build on their good instincts and ability to pick out purpose(s) of a source and support it from content and then be able to express what precisely the author/artist hoped to achieve in its production and why it was important.

Some candidates would use the word "purpose" but then just state what they saw in the source. This sort of descriptive answer struggles to get out of level 1. Centres should ensure that even lower ability candidates are able to pick out even a small purpose (e.g. "to show how to put people to sleep"), and support it a little from the source ("I can tell this because of the mask being held over the face"). This is the difference between a level 1 response and a level 2 answer. Another problem occurred when candidates using their own knowledge failed to refer to the source or the question focus (purpose). Typically these responses explain in great detail (sometimes across the full two pages allocated for this question) about the development of anaesthetics, or the problem of infection but do not link to a purpose. This lack of link means the response will not make it out of level 1. Candidates should be reminded that this is a sources paper, and while own knowledge is welcome, it must always be used in conjunction with the source and with reference to the question set – in this case, purpose.

2 **Study Source B and use your own knowledge.**

What was the purpose of this representation?

Explain your answer, using Source B and your own knowledge.

(8)

Source B is an illustration showing a surgical opperation in early 1870's. Written by T.S. Wells and published in a book the purpose of this illustration would be to educate and enform surgeons on how to perform an opperation using chloroform.

the image depicts a surgen disecting operating on a man and another person giving the patient chlorophorm. This accurately shows how chlorophorm was used to sedate patients

during an operation. In the 1870's chloroform was widely used to sedate patients however, as we shows in the ~~extract~~ illustration surgeons didn't know the correct dose to give a patient and so it would be re-applied during an opperation. The bucket placed beneath the desk also indicates blood loss was still a big issue. This was because in 1870's they couldn't store ~~blood~~.

This illustration would have been drawn to give surgeons, who were still in training or who were only just starting to use chloroform, an accurate image of what to do. In the 1870's surgeons wouldn't be properly trained. They would watch opperations and read books on how to opperate instead of getting first hand knowledge of how to opperate.

Question 3

Candidates continue to excel at this question, many of whom managed to get at least a L2, and many achieving L3, suggesting that centres continue to do an excellent job preparing students for this item. This, however, does not necessarily mean that it was always well answered. Level One candidates in particular failed to either read the question properly or understand its instruction, as many wrote about surgery in nineteenth century in general rather than focusing on why people were afraid of surgery during that time. Typical Level Two candidates focused on fear, but presented their arguments in a list-style answer rather than a coherent text, for example 'people were afraid of surgery because of ... Another reason why people were afraid of surgery is...'. Most Level Three candidates opened their answer with a proper introductory statement nominating various fears, then addressed each of the fears with support from source and ARK and concluded with a summarising statement. The main reason why many fairly well developed answers did not enter L3 was the lack of ARK.

This was a question where candidates in the lower part of L2 tended to go all out to answer using only Source C, or only using their own knowledge. This was particularly common among candidates who clearly had an excellent subject knowledge and related their points continually to the question focus of fear, but without any reference to the source.

While this approach did produce some truly excellent and well supported descriptions of the problems of the problems of surgery, with a particular focus on pain, it also led to the candidates being capped at 5 marks. There seemed to be fewer of these types of answers this year than there were in the 2015 series, but it continues to be a problem area for a significant minority.

Candidates must be reminded to read the question in detail at least twice and provide support from both the source and own knowledge when asked to do so.

In relation to effective teaching about how to answer this question, teachers could begin by helping students practise answers which they construct on own knowledge alone. Once this is learned, they could then be encouraged to look to the source for examples to illustrate the points they have made. This would ensure that pupils are able to combine use of the sources and their own knowledge, thus enabling them to gain higher marks. It would also demonstrate to pupils that they must have revised before the exam, and must be in possession of a certain amount of own knowledge upon which they can draw.

Amongst the reasons for fear, 'pain' ranked highest, usually supported by quotes from the source referring to brandy/leather/assistants holding the patient down. Related ARK usually involved references to James Simpson and John Snow. Higher level candidates further developed the aspect of pain, relating it to religion and the idea that pain was given by God and trying to prevent it would interfere with God's will. Unfortunately, a considerable number of candidates are unable to distinguish between anaesthetics and antiseptics, resulting in some bizarre answers about carbolic spray preventing pain.

The second most common reason nominated for fear was 'death'. Support from source for this included the speed of the surgeon, often with reference to Liston (sadly often presented as 'Lister') sawing off an assistant's finger when he did an operation in under 2.5 minutes. Comments about death as reason for fear were often accompanied by references to blood loss and infection, frequently combined with the mentioning of the 'black period of surgery'. Particularly when talking about infection, candidates referred to the contents of source A. Some also linked to Pasteur and the germ theory.

'Cost' was sometimes mentioned as a reason for fear, supported by source material reading that the patient would only take brandy, if they could afford it and by ARK.

Less frequently mentioned fears included lack of scientific knowledge/little development in surgery in general at the time/constantly changing methods in surgery/trauma resulting from surgery (e.g. 'scarring for life'). Such arguments were usually only supported by ARK and could mostly be found in either L1 or L3 answers.

3 **Study Source C and use your own knowledge.**

Why were people afraid to have an operation in the early nineteenth century?

Explain your answer, using Source C and your own knowledge.

(10)

From my own knowledge, I know that before the mid-nineteenth century, there was no anaesthetics used when carrying out surgical procedures (operations). This meant operations were extremely painful, sometimes so painful the patient would die.

A key point within source C, which is 'If the patient he could afford it, the patient took opium, or a large quantity of brandy.' - many people could not afford this and therefore had to undergo an operation without anaesthesia.

Furthermore, from my own knowledge I know that blood loss was a large issue when operations were carried out. During the nineteenth century, ways to seal blood cells such as cauterization had not been discovered, and this means majority of patients lost large amounts of blood during their operation, leading to their body going into shock, and dying. Therefore, as many people knew the outcome of an operation was death or severe blood loss, they were very afraid.

Another key point in source C, is the statement that 'The fastest surgeons were the best' - as blood loss was a huge issue, as well as the fact that many people could not withstand the high level of pain, surgeons had to work extremely fast. Despite this meaning operations

were normally over quite fast, it sometimes meant fatal mistakes were made. For example, a doctor performing one of the fastest operations ever, accidentally cut off a man's testicles. Obviously this meant there was little trust between patients ~~that~~ and doctors as you usually came out worse.

One other significant problem with operations was the risk of infection - the 'strong assistants' would not be clean, and neither would the surgical equipment. The absence of gloves and masks meant the risk of infection was high, and therefore any patient could develop sepsis and potentially die.

Question 4

Question 4: How reliable are sources D and E as evidence of the impact of Lister's ideas?

Many candidates showed good ability to use the sources and explain the message the content of the two sources provided about Lister's impact. Supported judgements based on content were the most common answers that were given in these questions. Some really strong answers linked judgements about content with the NOP of the sources, rather than dealing with NOP and content separately. When combined with ARK to corroborate the sources this led to very successful answers.

Despite this many candidates were taking the sources at surface value when commenting on NOP and making statements that were too sweeping. A significant minority of candidates when judging the sources based on NOP did not get beyond L1 criteria, making comments like 'Both D and E are from surgeons at the time which makes them reliable'. Judgements based on NOP were generally less well explained than those based on content. Many candidates picked up the significance of source D being published in the *Lancet* but that was as far as their comments went. Very few explained what this meant about the evidence provided from the surgeon at Dowlais Iron works, explaining that the *Lancet* as an respected professional publication would have been checking the validity and accuracy of the claims writers were making, therefore making the statements he made about the impact of Lister's work more trustworthy and reliable. A very small number of candidates did not seem to know what the *Lancet* was and so more source practice using types of professional publications might be an important idea going forward. Developing explanation skills using NOP is also important using phrases like 'This makes the source more reliable because...' as often this level of explanation was missing.

Reminding students of the importance to judge both sources based on content and NOP is also important for teachers to remember as it was impossible to get into L3 without this. Giving students a clear formula to follow will benefit candidates in improving their answers. It is very clear that the strongest answers had a clear structure, with paragraphs containing at least 3 of the 4 criteria.

Use of ARK was something that enhanced answers when it was done successfully, e.g. with source E making suggestions about why surgeons opposed use of carbolic acid to corroborate the information used by the surgeon writing to a counterpart in Germany. This idea of corroboration is important and whilst many candidates attempted this it was not always done successfully. Many just wrote 'This is supported by my own knowledge therefore it is reliable' without actually explaining what own knowledge was were referring to.

While candidates were generally fairly secure about how to judge reliability based on Nature/Origin/Purpose (suggesting centres are doing an excellent job teaching candidates how to assess reliability based on these factors) it was still surprisingly common at both L1 and L2 to see candidates who felt that primary sources were inherently trustworthy because they were from the time and secondary sources untrustworthy because they were from later. This is generally confined not only to L1 scriteria (for whom this may be the only comment on reliability) but for L2 candidates who allow their entire answer to be unbalanced by the way they view primary and secondary sources. Centres should focus on helping candidates understand that being of a time period, either then or later, does not make a source inherently trustworthy or not.

Candidates struggled much more with judging reliability based on content. They tended to fall in to two categories when they attempted it. The first was to use the content of both sources to test against one another (source D shows success, but E shows that there was opposition). The second approach was testing via own knowledge (Source D shows that there was a lot of success treating compound fractures with carbolic acid, which echoes the success that Lister had in initial tests of his technique in his own ward where deaths from sepsis dropped dramatically). This latter tended to be much more successful, and was nearly always present in higher level candidates. Candidates should be encouraged by centres to

test the reliability of the content with their own knowledge. This will help the candidates effectively test reliability, and help them achieve higher marks for use of relevant own knowledge.

A few candidates misunderstood the question and focused either on utility of the sources for understanding Lister's impact or merely wrote down everything they knew about Lister's impact and therefore scored very few or no marks whatsoever. Using words from the question to frame the answer and encouraging/training students to use the question to come up with their own sentence would help weaker candidates to avoid this. In addition to this there was still a significant minority of candidates who did not attempt this question at all. More practice at dealing with reliability questions might help to avoid this.

4   **Study Sources D and E and use your own knowledge.**

How reliable are Sources D and E as evidence of the impact of Lister's ideas?

Explain your answer, using Sources D and E and your own knowledge.   **(10)**

Annotations (handwritten):
D - Lancet reliable medical journal - from the time by a doctor is uniform
widely used commonly successful doesn't show full circle.

E - Report to German could be bias - telling other places. is only mentions opposition is very true.
doctors - makes surgery harder - irritant.

Source D is relatively reliable to use as evidence of the impact of Lister's ideas. It has been taken from a report in The Lancet in 1868. Not only does this mean that it was close to the time of his development so is likely to be factually correct, but the fact that it has been taken from The Lancet, which is a trusted medical journal which aimed to inform and teach doctors, also helps to solidify its reliability.

However, the source does only mention one side of the impact of Lister's ideas as it only mentions the positive things and does not speak of the opposition he faced.

Source D was however written by a doctor so he should be a reliable source for explaining the impact that Lister's ideas have had as he would have seen them first hand.

The doctor states that "the use of carbolic acid has

created a revolution in surgery at the Dowlais Inn Works" and has "been a great success". Although this would be useful, no reliable evidence to back up the fact that Liston's spray did often work and was liked by many doctors; It is not representative as the doctor is only explaining how it helped at his specific location, and does not mention whether it was liked by others. From my own knowledge I know that Lister faced a lot of opposition, from doctors in particular because they argued that the carbolic acid was irritant on their skin and made the operations themselves more difficult as sometimes the instruments could be slippery.

Contrastingly, source E is a report from a German surgeon in London to another professor in Germany. The purpose of the source would have been to inform however due to the fact that it is only between two surgeons, whom you would imagine know one another, it may not be as factually correct and could be a little more opinion-based. Also, the fact that it is from a German person in London to a person in Germany could mean that it is a little bias as they would possibly want to rubbish the British ideas. The source states "Lister has few supporters"

and that "The Leading surgeons refuse to have anything to do with his antiseptic method." Whilst it is ~~true~~ true that Lister did face a lot of opposition this source is once again not fully representative as it does not mention any support that Lister did have but also does not give any specific examples of people who disliked his work, such as James Simpson.

In conclusion, both Sources D and E may be evidence of Listers impact, with D seeming a little more reliable, however neither source gives a full interpretation and both are very one-sided so would not be a reliable source to tell you all of the impact Lister had.

Question 5

Question 5: How far do you agree with this interpretation?

The majority of candidates were able to show understanding of the sources and were able to link them to the interpretation from source F, either showing support or challenge from the sources. There was also a lot of use at general ARK in this answer. Most responses either fell into high L2 or L3 key mark. The difference between the two types of answer was that candidates who ended up in L2 did not clearly link what they were saying to the concept of change in surgery and were by and large mechanically going through the sources using phrases like 'source A challenges this interpretation…'. Ability to explain what these things meant about the concept of change in surgery was missing in many answers and again highlights the importance of linking points back to the question. Encouraging use of PEEL (point, evidence, explain, link) and using words from the question to frame each paragraph is an important skill to develop.

Another drawback experienced by many candidates was that they tended to focus on Lister alone. This is what stopped many answers getting beyond L3 as the answers were unbalanced and did not really answer the question. The question asked about change in surgery not just about application of Lister's techniques and adoption of antiseptics. The best candidates were able to use a breadth of ARK about a range of other reasons why there was little change in surgery spanning the period in question, referring to Landsteiner's discovery of blood groups, the impact of WW1, and the slow uptake of anaesthetics over time, to form a more balanced argument explaining reasons for slow change in surgery. Reminding students to demonstrate the depth of their knowledge rather than being limited by the set of sources focusing on one aspect of surgery is very important.

Very few candidates reached L4 standard in their answer. Those who did so were able to form a clear judgement such that they argued throughout the question, making clear links to the question throughout. These candidates also had a significant demonstration of ARK as well as use of the sources. The concept of 'How far…' was not successfully addressed by many candidates ; giving candidates practice in writing conclusions that weigh up different factors is an important skill to impart. Using phrases such as 'Although there is merit to the idea that Lister's ideas not being used properly stopped change in surgery there were more important factors that impacted this such as…'.

Timing seemed to be an issue for many candidates when answering question 5. Many answers seemed rushed or incomplete and a significant number of candidates did not attempt this question at all. Considering that this is the highest tariff question on the paper, especially as it contains SPAG marks, it is important that students are taught to spend time on this question.

Typical comments included: 'Source E supports the interpretation in the question because… This source is reliable/ not reliable because…' but these were consequently not linked to the question. A mechanical approach of this manner did not really benefit candidates as many did not get out of L2 because they were not addressing the concept of change in surgery.

*5 **Study Sources A, E and F and use your own knowledge.**

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

Source F suggests that the main reason why there was little change in surgery was because Lister's techniques were not used properly.

How far do you agree with this interpretation? Explain your answer, using your own knowledge, Sources A, E and F and any other sources you find helpful.

(16)

Plan: Agree
Listers ideas were not used properly
Dismissed by Surgeons
Anaesthetics stopped fast surgery
Lister techniques could have reduced fear
Blood loss stopped internal surgery

I agree that the main reason there was little change in surgery was because Lister's techniques were not used properly but I believe the lack of pain relief and blood loss were also significant.

Source F proves that Lister's ideas were not used properly and that this led to people believing that they did not work. Therefore surgery could not progress as the major problem of people dying after operations because of infections such as septicaemia could not be overcome, if people did not

believe Lister's ideas could help people then surgery could not be improved. Source E also shows that Lister's ideas were not accepted by surgeons and that many did and not know of his practices. The fact that Lister methods were not followed properly meant that his ideas were not shared with other doctors and surgery could not progress as the information was not being passed on. However I know that another reason that Lister's methods were not passed on was that surgeons did not widely accept Pasteurs Germ Theory so many did not see the purpose of using carbolic acid and hindered surgery by not passing on the ideas because of that.

On the other hand another big reason that Surgery did not develop was that Anaesthetics were not widely used in operations as discussed in Source C "The fastest surgeons were the best" shows that surgery did not develop because

complicated and slow operations could not happen because the lack of anaesthetic meant that operations had to be fast.

Another reason that the misuse of Lister's techniques hindered the development of surgery was that without them, patients were still afraid that an operation could lead to a dangerous infection. Source A describes the blood stained and pus covered coats that surgeons would wear in operating theatres the correct use of Lister's carbolic acid would have prevented the infection carried on these clothes from passing from patient to patient. If the chance of infection were reduced people may have been less afraid to have operations and surgery would have developed because more operations were taking place.

However surgery did also not develop because of the blood loss that occurred during a surgical operation. Because surgeons had a

no way of preventing blood loss during an operation internal operations could not occur as too much blood would be lost. The fact that internal operations could not happen hindered the development of surgery massively and if the problem of blood loss had been overcome earlier surgery may have developed quicker. However, without Lister's antiseptic methods internal surgery may have brought infections deeper into the body and cause more death from infection.

To conclude the misuse of Lister's ideas was a significant reason that surgery did not develop because it meant that the ideas were not spread and death from infection was high. However blood loss and pain were also important hurdles that needed to be overcome for surgery to develop.

Paper Summary

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

Make sure that you make at least one inference and preferably two. You must support your inferences using support from source A.

You must not just comment on what the source says or shows but comment on why it was produced.

You need to make use of your own knowledge of the topic and information provided by the source to answer question 3.

Ensure you explain how reliable both sources are in terms of nature, origin and purpose.

Make sure you leave enough time to do justice to question 5 which is worth 16 marks plus a possible 3 marks for spelling, punctuation and grammar.

Grade Boundaries

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

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