Edexcel GCSE History B (Schools History Project)
Unit 3: Schools History Project Source Enquiry
Option 3A: The transformation of surgery, c1845–c1918

Tuesday 29 January 2013 – Afternoon
Time: 1 hour 15 minutes

You must have:
Sources Booklet (enclosed)

Total Marks

Instructions

• Use black ink or ball-point pen.
• Fill in the boxes at the top of this page with your name, centre number and candidate number.
• Answer all questions.
• Answer the questions in the spaces provided – there may be more space than you need.

Information

• The total mark for this paper is 53.
• The marks for each question are shown in brackets – use this as a guide as to how much time to spend on each question.
• Questions labelled with an asterisk (*) are ones where the quality of your written communication will be assessed.
• The marks available for spelling, punctuation and grammar are clearly indicated.

Advice

• Read each question carefully before you start to answer it.
• Keep an eye on the time.
• Try to answer every question.
• Check your answers if you have time at the end.
Answer ALL questions.

Look carefully at the background information and Sources A to G in the Sources Booklet and then answer Questions 1 to 5 which follow.

1 Study Source A.

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

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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)
3 Study Sources A, C and D.

How far do Sources A, C and D suggest that new developments were successful in improving surgery? Explain your answer, using these sources.

(10)
(Question 3 continued)
(Question 3 continued)
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)
(Question 4 continued)
(Question 4 continued)
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)
Background information

The years c1845-c1918 saw major breakthroughs in surgical techniques, scientific knowledge and technology. However, there was considerable opposition to the introduction of new ideas and a reluctance to abandon traditional practices.

This paper presents you with sources about new developments in surgery and gives you the opportunity to decide for yourself whether opposition to new ideas was the main reason why surgery changed slowly in the years c1845-c1918.

Source A: A drawing of surgeons using an anaesthetic in an operation in the mid-nineteenth century.
Source B: An account written in the 1850s of an operation before the use of chloroform.

Before the days of anaesthetics, a patient preparing for an operation was like a condemned criminal preparing for execution. When I had my amputation, I counted the days till the day of the operation. I counted every hour of that day. I listened for the surgeon's carriage, the sound of the doorbell, his footsteps on the stairs. I watched the unpacking of his dreadful instruments, I listened to his few solemn words. I still recall him spreading out the operating instruments, his first cut, and afterwards my bloody limb lying on the floor.

The great suffering I experienced cannot be described in words. I would have been spared all this by the use of ether or chloroform.

Source C: From an account written in 1847 by Dr H Cree, a surgeon.

At Edinburgh Infirmary I saw some operations where ether was used. It was a new method of making patients unaware of pain. It is a great blessing, but Professor Syme* opposes the use of ether because of the delays it causes and the lack of certainty over its effectiveness. However, the method is still in its early days.

* Professor Syme was a leading surgeon in Edinburgh.


To start with, many surgeons opposed Lister's methods and he was seen as a fanatic. His carbolic spray, which soaked the operating theatre, seemed very extreme. It cracked the surgeon's skin and made everything smell. The new precautions caused extra work and made operations more expensive and less pleasant for the surgeons. When some surgeons did try copying Lister's methods they got different results. This was usually because they were less careful, but that didn't stop them criticising Lister.
Source E: From an account written by Sir Robert Jones, a surgeon, in 1896. He was the first to make use of Röntgen’s discovery of x-ray.

Röntgen’s discovery has been of great value in how we classify injuries. However, it has done little, if anything, to improve our treatment of fractures. All medical students should develop proper skills in diagnosis. They should not rely on the interpretation of an unreliable x-ray image alone.

Source F: A photograph taken during the First World War (1914–18) of an x-ray machine. It is being used to search for shrapnel in the body.

The late nineteenth century operating theatre was a mix of old and new methods. Lister was obsessed by antisepsis but he did not scrub his hands. He merely rinsed them in carbolic and he continued to operate in ordinary clothes.

Carbolic spray came under growing criticism and, in 1890, Lister abandoned it. By then it had been proved that heat was more effective than chemicals for sterilising instruments. Face masks, rubber gloves, surgical gowns and the abandonment of the huge public operating theatre – all these slashed infection in the 1890s.
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