

**Wednesday 23 January 2013 – Morning**

**GCSE HISTORY A (SCHOOLS HISTORY PROJECT)**

**A952/21** Historical Source Investigation  
Developments in British Medicine, 1200–1945

Candidates answer on the Answer Booklet.

**OCR supplied materials:**

- 8 page Answer Booklet  
(sent with general stationery)

**Other materials required:**

None

**Duration:** 1 hour 30 minutes



**INSTRUCTIONS TO CANDIDATES**

- Write your name, centre number and candidate number in the spaces provided on the Answer Booklet. Please write clearly and in capital letters.
- Use black ink.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Study the Background Information and the sources carefully. You should spend at least ten minutes doing this.
- Do **not** write in the bar codes.

**INFORMATION FOR CANDIDATES**

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **53**.
- This document consists of **10** pages. Any blank pages are indicated.
- You will be assessed on the quality of written communication in your answer to question 6. Questions marked with a pencil (✎) will carry 3 additional marks for spelling, punctuation and grammar.

**FOLD OUT THIS PAGE**

Study the background information and the sources carefully. You should spend at least ten minutes doing this.

In answering the questions, you will need to use your knowledge of the topic to interpret and evaluate the sources. When you are asked to evaluate specific sources you must do so, but you may also use any of the other sources if they are relevant.

Answer **ALL** the questions.

**1** Study Source A.

What impression does this source give of Joseph Lister's work? Use the source and your knowledge to explain your answer. [6]

**2** Study Sources B and C.

Which source is more useful as evidence about Lister? Use the sources and your knowledge to explain your answer. [9]

**3** Study Source D.

How far do you trust this source? Use the source and your knowledge to explain your answer. [9]

**4** Study Source E.

Does this source prove that surgery improved in Britain from 1867? Use the source and your knowledge to explain your answer. [7]

**5** Study Sources F and G.

Does Source F make you surprised by Source G? Use the sources and your knowledge to explain your answer. [9]

**6** Study **all** the sources.

 ***'People accepted that Lister had solved the problems of infection in surgery.'***

How far do the sources on this paper support this view? Use the sources and your knowledge to explain your answer. Remember to identify the sources you use. [10]

 Spelling, punctuation and grammar [3]

**DEVELOPMENTS IN BRITISH MEDICINE 1200–1945**

**How far did people accept that Lister had solved the problems of infection in surgery?**

**Background Information**

Lister was born in 1827. When he was working in Scotland at Glasgow University, he became aware that many people survived operations but died afterwards of what was known as ‘ward fever’. Lister believed that it was microbes carried in the air that caused this infection. He found that swabbing carbolic acid on wounds reduced infection. He made surgeons wash their hands and surgical instruments in carbolic acid solution before and after operations. Lister later developed a pump which sprayed a fine mist of carbolic acid into the air around the wound.

How far did people accept that Lister had solved the problems of infection in surgery?

**SOURCE A**

The theory, principles, and practice of Lister consist in “any method of treatment which succeeds in excluding the causes (germs) of decomposition from wounds”. With such a simple theory the details of its application ought to have been easily established; but the fact is that hardly one of Lister’s methods has not been abandoned. The spray was the most completely logical appliance that could have occurred to the mind of man. I gave the method a protracted trial, extending over three years. However, during this time I invented by far the best spray-kettle ever used, and I out-Listered Lister in its application. I showed that mortality was increased by Lister’s method. Lister still ignored me and my facts. But I went on publishing better and better results and laughing at Lister, and challenging him to produce his results.

*Lawson Tait, a Scottish surgeon describing his rivalry with Lister since the 1860s in a speech at a medical conference in 1890.*

## SOURCE B



*A painting of carbolic spray being used in one of Lister's operations in 1865. Lister is the man in the centre holding the scalpel. The painting was printed in a book in 2005. The book tells the story of the great advances in surgery since ancient times.*

**SOURCE C**

*A photograph of an operation in a Scottish hospital in 1880.*

**SOURCE D**

The operating theatre used to be covered with the filth of decades. The old wooden floor was brown-red, telling its tales of the scenes it had witnessed. The operating table looked as though it was never washed. No one thought of washing his hands or taking off his coat.

Surgery was saved by carbolic. Everything was soaked in it and huge containers of the precious fluid were everywhere around. The carbolic spray would distribute its fine mist into the air in the operating theatre to keep everything clean. It got into every nook and cranny of the wound. Our faces and coat sleeves often dripped with it. It was a relief to all when the spray was abandoned. It was costly and often faulty, as well as being a waste of time when it failed. Old-time surgeons laughed and said that Lister had abandoned antiseptics! Carbolic acid made sad work with our hands, which were always rough and cracked.

*The memories of one of Lister's medical students published in 1927.*



**SOURCE E**

YEARS	Total cases	Recovered	Died	Death rate per cent
1864–6 (without antiseptics)	35	19	16	45.7
1867–70 (with antiseptics)	40	34	6	15.0

*From Lister's own record of amputations in Glasgow.*

**SOURCE F**

Sir,

In your issue of yesterday you reprinted a long and interesting article on the use of carbolic acid in surgery. The article claims that Professor Lister was the first to make use of carbolic acid in surgery. However, it has been used for years by some foreign surgeons, especially by Doctor Lemaire of Paris. He has written a book on the subject. In this book, he describes in detail how carbolic acid can be used in agriculture, hygiene, veterinary practice, medicine and surgery. Your article will therefore bring us some discredit, particularly from our French and German neighbours.

*An anonymous letter in a Scottish newspaper published 21 September 1867. Historians have since discovered that the letter was written by Dr James Simpson.*

**SOURCE G**

When I tried Lister's methods I lost only 4 out of 139 patients. Lister's great discovery is being greeted by the whole civilised world as an enormous advance. England may be proud that it was one of her sons whose name is totally bound up with the greatest advance that surgery has ever made.

*A German doctor talking about his experiences in Germany at a meeting of doctors from all over the world. The meeting was held in London in 1881.*

**SOURCE H**

He only rinsed his hands in carbolic; he did not scrub them. Germs were left in the lines of the skin. Lister continued to operate in his ordinary clothes. Others developed face masks, rubber gloves and surgical gowns. He did not develop any new operations. Nearly all his operations were on broken bones and surface tumours. In 1890 Lister abandoned the carbolic spray.

*From a book published in 2003.*





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