



General Certificate of Secondary Education

History 3041/6/1 *Specification A*

Paper 1: Medicine through Time

Report on the Examination *2007 examination – June series*

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Dr Michael Cresswell Director General.

Paper 1

It is once again pleasing to start this report with the observation that the 2007 Medicine paper successfully differentiated, and enabled candidates of all abilities to show what they knew, understood and could do. There was again ample evidence that they had been well-prepared for the question paper and particularly for the nominated topic for Section A *Changes in surgery in the nineteenth century*. As in past years this report is designed to give feedback to teachers on the 2007 exam to help prepare future candidates for the paper. It is divided into two parts: general points emerging from the 2007 exam and then comments on candidate performance on each question.

General Comments

As in previous years it is worth repeating a number of key approaches to the paper. The number of marks allocated to each sub-question provides an indication of the length of time it should take, and therefore length of answer. Although there were fewer occasions this year, still a minority of candidates penalised themselves by continuing to ignore this advice, particularly in Qs 2 and 3, where more was written on part a. for three marks, than on part b. for twelve marks. Another sub-question where this continues to be poor technique is Q1a. Also, a continuing minority of candidates continue to think that the answer to part b. in Section B can be found in the source. The Source is provided solely as a stimulus to help candidates draw on their own historical knowledge, which must be the basis for the part b. answer. In general, wherever a question refers to a source on the paper, candidates need to make explicit reference to the source letter, or a strongly implicit reference to its content, to gain any marks.

Section A was based on the popular topic of nineteenth-century surgery and candidates obviously enjoyed displaying their knowledge of progress and regress during the century. Consequently there were significantly fewer errors than in some years both of content and chronology, as Source A gave a strong lead for the situation in 1800, and the varying solutions to the three issues of pain, infection and blood loss by 1900 had been well-learnt. This led to many thoughtful and detailed answers for Q1d where the change of wording to a direct question successfully focussed candidates on the key elements of using both their own knowledge and the sources as the basis for their answer. The one negative consequence of the enthusiasm shown in Section A was that some candidates struggled to finish the paper and resorted to rushed answers and notes at the end. Answers in note form will always be credited if accurate and relevant. However, they are very unlikely to show qualities which would lift them beyond Level 2. The advice on the front of the question paper suggests 50 minutes for Section A. It is advice worth emphasising to those candidates who might be tempted to spend longer on it.

In Section B Q3 was more popular than Q2, but a larger proportion of candidates answering Q3 fell into the trap described above of trying to find the answer to part b. in Source F, which superficially seemed to offer more help. Candidates need to be constantly reminded that Sources E and F are only stimulus material.

Examiners reported that an increasing number of centres encourage their candidates to attempt Section C before Section B. As long as candidates number their answers correctly, it makes no difference to examiners, but some centres clearly see the changed order as an advantage for their candidates.

The content focus of the two questions in Section C meant far fewer answers than in 2006 contained vague generalisations about British public health based on the conditions in early nineteenth-century towns and cities. The nature of the drawing in Source G seems to have been a reason Q4 was more popular than Q5. There was a tendency for some candidates to ignore the fact that Section C is based on British public health and in Q4c they wrote about the impact of the fall of the Roman Empire on medicine generally, thus repeating the content of Q2b. In this case, the references to medicine could not be rewarded, but where such references support a relevant answer they will continue to gain credit, for example, Pasteur's germ theory was often used relevantly to support an argument in Q5c. Many candidates continue to fail to distinguish the two reasons required for Q4b and Q5b. Whilst examiners will always try to credit two reasons, this is not possible where the candidate has written at length on one alone. The best advice continues to be that candidates should leave a line between their two answers.

Finally, it is again pleasing to record that rubric infringements have almost completely disappeared after the rephrasing of the rubric in 2005 and that the quality of written communication was often excellent and only in a very few cases did it hinder meaning, thus penalising the candidates. As in previous years there were very few examples of very short answers, but as stated above, more candidates than usual seemed pressed for time, having spent too long on Section A. There are still many centres where candidates fail to write the numbers of the sub-questions attempted on the front page. As individual sub-question marks have to be submitted to AQA online, it greatly helps the task of marking if the front page is already completed with the sub-question numbers. In conclusion it seems the message has now reached candidates that the use of correcting fluid is not allowed and that any errors or other work candidates wish the examiner to ignore should be neatly crossed out so that it remains legible.

Question 1

- (a) It is again necessary to point out that this is a simple opening question to help candidates settle into the exam. It is the lowest weighted part of Section A. Candidates should consider what the source suggests, communicate their response and move on. Most candidates were able to make simple inferences that the patient was held down and was screaming because of the pain and therefore there was a lack of anaesthetic. Very few also considered the status of the cartoon as historical evidence and that Rowlandson was stereotyping surgeons and criticising their practices, so the cartoon might not be helpful in investigating their work; most candidates assumed it was a real scene. Some candidates fell into the trap of writing all they knew about surgery in 1800 which was not required, and often led to duplication in later answers.
- (b) This year candidates were asked 'how much' can be learnt from Source B. They were also asked to consider the source as historical evidence in order to help them to take an evaluative approach. Therefore, they had to show a decision: 'much', 'a lot', 'not much', 'a great deal' for examples. Candidates who did not do this and then wrote at length about the development of anaesthetics lost the focus of the question and did not score well; in fact they were only using the source as stimulus and not evidence. The best answers considered how Simpson might not have been the most reliable observer of the advantages of chloroform as he was the person who had discovered its anaesthetic properties. Examiners noted some common errors: Robert Liston was not the first surgeon to use ether, it was Crawford Long, and, more surprisingly, that chloroform became accepted for childbirth after being used by Queen Elizabeth rather than Queen Victoria.

- (c) As indicated in the report for 2006, Sources C and D were later interpretations, in this case of the importance of Joseph Lister. Source C was given an attribution designed to give candidates clear clues about the possible reasons behind it; very different from those suggested by the attribution for Source D. It was, therefore, very disappointing to read a small but substantial number of answers confined to the following: Source C's author was there = primary source = reliable; Source D's author was not there = secondary source = unreliable. This is after over thirty years of SHP and nearly twenty years of the National Curriculum. Many of these answers then compounded the error by digressing into answering a question about which interpretation was the more reliable. Despite the length of such answers, they were very unlikely to score any marks. The key to a good Q1c answer is to explain the differences, not judge the validity. Consequently those candidates who developed the provided contexts of the sources were not only answering relevantly, but were likely to score well. Watson Cheyne would be expected to eulogise Lister in a speech to mark the centenary of his birth (but this demanded more than the assertion that Watson Cheyne was 'biased'), whilst Source D is from a chapter, the title of which *Was Joseph Lister Mr Clean?* suggests a critical, or even over-critical, interpretation from a history book. Candidates who supported their argument by reference to the tone, language and content of the sources in the context of their own knowledge about the development of antiseptic and later aseptic surgery reached Level 3 and scored well. Candidates who suggested that surgery in 1927 was the same as in Lister's time and/or that surgery had advanced greatly between 1927 and 2002 were far less successful.
- (d) The changed format of the question elicited a whole range of responses, with the vast majority reaching at least Level 2, although some stayed in Level 2 as they did not combine the sources with their own knowledge or vice-versa. Many candidates wrote at length about the developments and then reached Level 4 by making a supported judgement, most popularly that pain and infection were no longer major problems, but that surgery was still unsafe because of blood loss. The alternative route to Level 4 through the evaluation of Sources A – D was rarely attempted. In future candidates could be encouraged to take this approach to maximise their opportunities of reaching that level. Some examiners remarked that candidates were not clear enough in their references to the sources. With this particular topic and these sources it was sometimes difficult for examiners to decide whether the references were to the sources or the candidates' own historical knowledge, but the unambiguous reference to a source's letter is always helpful to the examiners.

Question 2

- (a) Most candidates scored full marks by making inferences about the work of Rhazes (Al-Rhazi) e.g. he worked carefully using Galen's books as his guide. Others were able to pick out three details e.g. he had studied Galen's books.
- (b) This question led to a very wide range of responses from candidates offering vague generalizations about the fall of Rome to those who had clearly studied Islamic medicine in detail. Many otherwise detailed answers remained in Level 2 because the relevant features were only described and not used to give reasons for progress. Thus the Christian church's ban on dissection and reliance on Galen prevented further investigation and therefore progress, whilst in the east progress came because of the work of doctors like Rhazes (Al-Rhazi) and Avicenna (Ibn Sina), with their writings disseminating their new ideas, and the building of hospitals as in Baghdad. Weaker

answers focused solely on the problems of public health following the fall of Rome and many asserted wrongly that Islam allowed dissection, unlike the Christian church.

Question 3

- (a) As in 2a most candidates were able to make inferences from the source. Some thought that the source showed Fleming to have been a careful investigator with a life-long interest in killing bacteria, but for others he was a careless investigator who did not keep his laboratory clean and tidy! Both inferences were allowed when supported by the relevant source content. A few candidates picked out three relevant details e.g. in his research he used petri dishes.
- (b) The focus of Q3 was chance. Any candidate who ignored chance completely and wrote about the role of any other factor did not answer the question. Conversely those who assessed the role of chance by comparing it to one or more other factors usually scored very well. The weakest rewarded answers either quarried Source F for relevant material or wrote in very general terms and failed to include any named examples. These could not move beyond Level 1. The most common better quality answers confined themselves to penicillin and compared the role of chance to that of war and government through the work of Florey and Chain reaching a supported judgement on the relative importance of the different factors. A number of candidates successfully used the example of Paré with chance and war, although there was confusion between ligatures for tying arteries and hot oil for treating gunshot wounds. A few candidates successfully used the example of Chamberland and chicken cholera. However many candidates were less successful through either choosing non-valid examples of chance or non-valid factors. As one candidate expressed it, 'Chance is a factor which happens outside your control'. Jenner (smallpox), Pasteur (germ theory) and Simpson (chloroform) were deliberately investigating. The specification lists war, superstition and religion, chance, government, science and technology and the role of the individual as factors encouraging and inhibiting change. Whilst communication was also allowed, microscopes, blood banks and transfusions and other non-factors were not.

Question 4

- (a) Most candidates were able to make valid inferences from Source G and the good planning which was needed to create a sewerage system to take away the waste. A disappointing number failed to give themselves a valid context and used the source for its surface features, so saw this as an unhealthy situation with communal facilities, open sewers and even eating in the lavatory from a spoon. Some candidates strayed too much into the reasons and so overlapped with Q4b. Only a very few considered how the nature of the archaeological evidence might have affected the drawing.
- (b) The most popular reasons were to keep the army healthy to defend the empire, to prevent disease in the absence of any effective treatments and as a part of Roman imperialism. 'Everyday' reasons such as the people liked to be clean or didn't want to smell, or even because their religion forced them to be clean, were barely acceptable. A few answers strayed to Rome, forgetting the British context, and some wrote very long descriptions of the facilities, which were not required by the question. As stated above, many candidates still need training in writing two separate answers to Qs 4b and 5b.

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- (c) Answers ranged from those which described public health in very general terms in both periods (with strong echoes of the early nineteenth century e.g. laissez-faire) to those who compared the attitude of the government in the two periods and agreed with the premise and then to those who sought to challenge the premise either by offering alternative reasons for the conditions e.g. the changed priorities of national government, or by considering the attempts to control public health by local by-laws. There were some very sophisticated answers which contested the statement by considering how far the Black Death could be seen as a measure of bad public health, given the lack of scientific knowledge about it, so that responses in the Roman period may not have been any more successful. Apart from the over-generalised, non-contextual descriptions of public health some errors were much-repeated. People in the Middle Ages did know there was a link between poor conditions and disease, but could not explain it. Red crosses on doors, quarantining people in affected houses and killing cats and dogs were measures taken in the Great Plague, not the Black Death. However, the question succeeded in making all candidates think about the contention; it was the quality of knowledge which decided the quality of their answer.

Question 5

- (a) The cartoon could be interpreted at many levels so it was disappointing to read a number of answers which failed to make even the simplest valid comments upon its usefulness. Many considered the personification of the City of London to be a rich or upper-class lady or even the queen (but without naming Victoria). Others failed to recognise the Thames as a river, describing it as a road. Nevertheless all candidates were able to make some surface observations or inferences about the state of public health, usually based on the three diseases and/or the smoking chimneys in the background. The use of the candidates' own knowledge to develop the answer was largely limited to recognising the names of the three diseases. The very best answers evaluated the source as evidence for the campaign to improve public health, in the context of the 1848 act, by exaggerating the actual conditions. This approach is to be encouraged.
- (b) Chadwick, Snow and Hill are individuals named in the specification. Candidates who had studied their contribution to improved public health scored well. However the question was phrased to allow two reasons or motives more generally. Unfortunately there was much generalisation about cleaning streets, providing WCs and clean water which could have applied at any time in the past, or even today. Answers which considered changing the philosophy of laissez-faire or reacting to back-to-back housing displayed a proper historical context and were rewarded as Level 2 or 3, depending upon how the answer was developed.
- (c) As in Q4c the question required candidates to use their knowledge in a comparative way. Many examiners remarked that candidates' knowledge of twentieth-century developments (notably the Liberal Social Reforms and the National Health Service) has improved over the past few years, yet others commented upon the generalised nature of the knowledge of this period. Candidates are traditionally happiest in Section C when asked to consider the public health problems of nineteenth-century towns and cities. Although there were few answers dealing solely with the nineteenth century, in contrast to those which dealt solely with the twentieth century, many candidates spent unnecessary time on nineteenth-century improvements, which could only be peripheral to a question focused on twentieth-century improvements. Answers which developed the impact of Boer war recruitment and the surveys of Booth and Rowntree and the report of Beveridge and compared this to nineteenth-century attitudes and the lack of political

power of the ordinary people reached secure Level 3. Those who made a supported judgement, most typically that the government increasingly took responsibility, reached Level 4.

Conclusion

For the overwhelming number of candidates this exam was a positive experience and their answers evidenced that they had been well-taught by enthusiastic teachers. This report has not only commented upon candidate performance in the 2007 exam, but has also made a number of suggestions on approaches to individual questions to help teachers to improve their candidates' performances in future years. As a reminder for 2008 the nominated topic for Section A is *The Impact of the Theory of the Four Humours on Medicine*.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results statistics](#) page of the AQA Website.