1.8 Medicine in Britain, c1250-present: Change and Continuity in the Treatment and Prevention of Disease: 30-minute Pack

EDEXCEL 1HI0 · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. You are advised to spend about 30 minutes on this pack.

1 Explain why surgery became significantly safer between the mid-nineteenth century and the early twentieth century.

(Total for Question 1 is 8 marks)

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2 'War has been the main reason for change in the treatment of disease and injury in Britain in the years c1250-present.' How far do you agree with this statement? Explain your answer.

(Total for Question 2 is 16 marks)

3 Name the two anaesthetics introduced into British surgery in the 1840s that allowed patients to be operated on without being conscious.

(Total for Question 3 is 2 marks)

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Mark scheme · 1.8 Medicine in Britain, c1250-present: Change and Continuity in the Treatment and Prevention of Disease: 30-minute Pack

Question 1

Level 1 Identifies one or two general reasons why surgery became safer, with little or no supporting detail or explanation. **1-2**

Level 2 Identifies and begins to explain one reason, supported by accurate detail. **3-4**

Level 3 Explains two reasons why surgery became safer, each supported by accurate and relevant detail. **5-6**

Level 4 Explains two or more reasons in a well-developed, logically structured way, supported throughout by precise and accurate detail, showing how the reasons connect. **7-8**

Indicative content:

- The introduction of anaesthetics, especially ether from 1846 and chloroform from 1847, pioneered by James Simpson, removed the problem of pain during operations, meaning surgeons no longer had to work at high speed and could attempt more complex procedures.
- Joseph Lister's use of carbolic acid as an antiseptic from 1865, based on Pasteur's Germ Theory, significantly reduced deaths from post-operative infection, a problem that had previously killed many patients who survived the operation itself.
- As Germ Theory became more widely accepted, surgical practice moved from antiseptic methods, killing germs already present, towards aseptic methods, preventing germs from being present at all, such as sterilising instruments and wearing sterile gowns and masks, further reducing infection risk.
- Improvements in blood transfusion, developed and refined especially during the First World War, for example Oswald Robertson's use of sodium citrate to store blood from 1917, meant that patients who lost significant blood during surgery could be treated, reducing deaths from blood loss.

Question 2

Level 1 Shows limited relevant knowledge of treatment across the period, and offers only a simple, unsupported opinion on the statement. **1-4**

Level 2 Shows some relevant knowledge and identifies relevant factors, but the argument is only partly supported and lacks a developed judgement on how far the statement is accurate. **5-8**

Level 3 Shows good relevant knowledge and explains a range of factors, reaching a supported judgement on how far the statement is accurate, with some links made between factors. **9-12**

Level 4 Shows precise, well-selected knowledge and explains a range of factors in a balanced way, reaching a fully supported and sustained judgement on how far the statement is accurate, with clear analytical links between factors and consistently accurate use of specialist historical terminology. **13-16**

Indicative content:

- Supporting the statement: the First World War accelerated important developments such as blood transfusion techniques, for example Robertson's use of sodium citrate from 1917, and plastic surgery, for example Gillies's work at Sidcup, driven by the urgent need to treat large numbers of severely wounded soldiers.
- Supporting the statement: the Second World War provided the funding and urgency that turned Fleming's 1928 discovery of penicillin into a mass-produced medicine by the mid-1940s, saving many lives from infected wounds among Allied forces.
- Against the statement: many of the most significant developments in this period had nothing to do with war, such as Vesalius's anatomical corrections in the 1540s, Jenner's smallpox vaccination in 1796, and the creation of the NHS in 1948, which resulted from social and political reform rather than conflict.
- Against the statement: the discovery of the true cause of disease through Germ Theory, by Pasteur and Koch from the 1860s to the 1880s, was the result of civilian scientific research in peacetime, and this scientific understanding underpinned much of the wartime medical progress that followed, since Lister's antiseptic surgery, developed decades before the First World War, was based on Germ Theory, not conflict.
- Against the statement: government policy and legislation, such as the Public Health Acts of the nineteenth century and the founding of the NHS, changed how widely available treatment was, independent of any war.
- A balanced judgement might argue that war acted as a powerful accelerator that sped up the practical application of medical knowledge already developing in peacetime, such as Germ Theory or Fleming's initial 1928 discovery, rather than being the ultimate root cause of medical progress across the whole period.

Question 3

ether (first used in a British operation in December 1846) **B1**

chloroform (introduced by James Simpson in 1847) **B1**

Answer: Ether and chloroform

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