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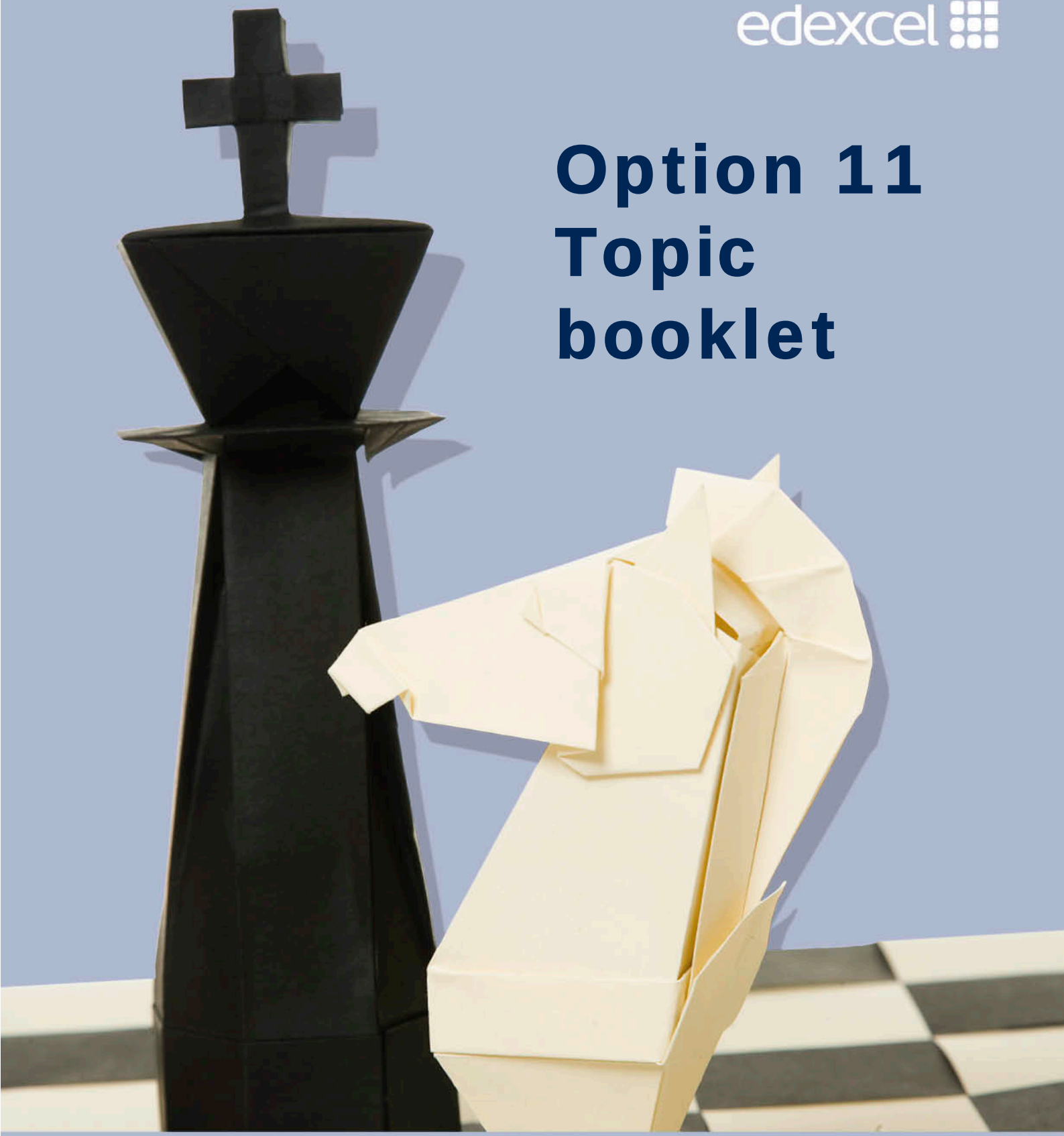
Option 11 Topic booklet



Medicine in Britain c1250–present
and **The British sector of the Western Front, 1914–18: injuries, treatment and the trenches**

GCSE (9-1) History

Pearson Edexcel Level 1/Level 2 GCSE (9-1) in History (1HI0)

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Contents

Version 2 (September 2019)

This topic booklet has been updated to provide further clarification of the content in the topic, and to refer to the free support material available on the Edexcel website and to new resources created since the original lists were assembled in 2015.

1. Overview

This option comprises a thematic study, Medicine in Britain c1250–present, and a study of the historic environment, The British sector of the Western Front, 1914–18: injuries, treatment and the trenches.

Studying Medicine in Britain will give students an overview of the impact that improved knowledge, understanding and technology has had in Britain from 1250 onwards. At its heart, the Medicine in Britain study is the story of change and continuity in medicine and the factors influencing its development. The study begins in the Middle Ages, with a focus on the importance of the Church in controlling medical training and providing care for the sick but also considering its reluctance to abandon faith in old methods for new, untested ideas, or its position of authority in the study of medicine. Following the decline of the power of the Church, the study moves through the Renaissance, the scientific revolution, the process of industrialisation and into the nineteenth century, when new discoveries and developments started to have a big impact on the understanding of disease. The focus moves to the rise of technology and the growing importance of government from the nineteenth century onwards. In the linked historic environment, students learn about the relationship between conditions on the Western Front and their impact on the nature of illness and the provision of medical care, within the broader context of developments in medicine in the early twentieth century.

Key individuals and events are studied as a way of examining change and continuity. For example, the work of William Harvey and Edward Jenner provided important advances in one way and yet could also be said to have had a limited impact on medicine overall. Similarly, comparisons can be made between epidemics such as the Black Death in 1348 and cholera in 1831.

1.1 Assessment

Section A Historic environment

For the historic environment, students answer one question requiring them to describe features (AO1) and a two-part question targeting AO3 (analyse, evaluate and use sources). Question 2 uses two contemporary sources; one of them may be visual, but at least one will be written.

- Question 1: students describe features.
- Question 2 (a): students assess the usefulness of two sources for a specified enquiry, making use of their knowledge of the historical context.
- Question 2 (b): students suggest a follow-up area of investigation for the specified enquiry.

Section B Thematic study

Students answer three questions for the thematic study: Question 3, Question 4 and either Question 5 or Question 6.

- Question 3: this focuses on similarity or difference over time.

  Questions will cross sections and will normally span at least a century (and may span much longer periods).
- Question 4: this focuses on the process of change (e.g. why there was a rapid change/slow change/why change continued).

  Questions will normally span at least a century and may span much longer periods.

- Questions 5/6: requires a judgement and may focus any of the following: the *nature* or *extent* of change (similarity/difference or change/continuity); *patterns* of change (turning points, i.e. significance); the *process* of change (factors bringing it about, i.e. causation); or the *impact* of change (i.e. consequence).

  Questions will normally span at least two centuries and may span much longer periods.

Detailed information and guidance on assessment can be found in the separate Getting Started Guide.

2. Medicine in Britain, 1250–present

2.1 Introduction

There are two main strands to the medicine thematic study:

1) ideas about the cause of disease and illness

2) approaches to prevention and treatment.

To encourage students to see broad trends over time, the timescale of c1000–present has been divided into four sections: c1250–c1500, c1500–c1700, c1700–c1900 and c1900-present day.

Students should develop an understanding of the nature and process of change. This will involve understanding patterns of change, trends and turning points, and the influence of factors inhibiting or encouraging change within periods and across the theme. The key factors here are: individuals and institutions (Church and government); and science and technology and attitudes in society.

The case studies in each time period allow students the opportunity to understand how factors worked together to bring about particular developments at particular times and make detailed comparisons over time. These case studies include significant epidemics, such as the Great Plague of 1665, and key individuals, such as Edward Jenner. However, not every case study is capable of illustrating all of the key factors or elements of the content strands, and so the relevant aspects of the case study should be explored as appropriate.

2.2 Content guidance

It is important that students have an understanding of the context and of society during each time period and how these influenced developments in medicine. Contextual knowledge of the influence of the Church in medieval society, the Reformation, Renaissance, and the Industrial Revolution and growth of cities will be particularly relevant as these represent broader factors that inhibited or promoted change in medicine.

Within each time period it would be useful to draw out key terms associated with each one, for example, medieval, Middle Ages, Renaissance, Industrial Revolution and 'modern period'. Students also need to be able to associate these labels with chronological periods, so they need to understand that the Medical Renaissance broadly coincides with the sixteenth and seventeenth centuries and that the term 'nineteenth century' applies to the 1800s.

c1250-c1500: Medicine in medieval England

Students should understand that medicine in medieval England was strongly influenced by the Church: the Church controlled medical knowledge and understanding, promoting the work of Hippocrates and Galen as it had done for centuries. They should understand the differing roles of the physician, apothecary, and barber surgeon and also the role of the Church in providing care in hospitals. However, students should recognise that many illnesses would be treated within the family, using herbal or traditional remedies. They should appreciate, too, that there was also a strong belief in the role of the supernatural: that God both sent and cured disease, so that prayer was used alongside more physical attempts to treat disease, such as bloodletting and purging, and the use of herbal remedies that had been passed down through generations. The full spread of ideas about prevention and treatments that desperate people were willing to try is exemplified in the case study of the Black Death, which spread across England from 1348.

c1500-c1700: The medical renaissance in England

In the period c1500–c1700, students should understand that the English Reformation saw the power of the Church wane and with it control of medical knowledge and training, together with the religious hospitals that had previously provided care for the sick. Scientific experimentation began in earnest, as exemplified in the case study on William Harvey and the circulation of the blood. Students should understand that the Medical Renaissance in England represented a significant development in medical knowledge, shifting to a more scientific approach, for example, the work of Thomas Sydenham, supported and promoted through the Royal Society towards the end of the time period. The key role of the printing press should also be appreciated.

However, students should recognise that new theories about the cause of disease were slow to develop and spread, and that old ideas, such as miasma, persisted throughout this period. Treatment remained largely based on bleeding, purging, the Theory of Opposites and herbal remedies. The case study of the Great Plague outbreak in 1665 enables students to interrogate how much change there had been in the understanding of infection and approaches to dealing with mass epidemics, making comparisons with attitudes and beliefs about the Black Death.

c1700-c1900: Medicine in eighteenth- and nineteenth-century Britain

The third time period represents a significant episode of change across the unit: ideas about the cause of disease were revolutionised by improvements in science and technology. Students should understand the impact that this had on understanding about the causes and prevention of disease, including the influence of Pasteur and Koch's work. The two case studies look at Edward Jenner and his smallpox vaccination, and John Snow and his theory about the spread of cholera. The latter provides an opportunity for comparison with the Great Plague and the Black Death. Students should also understand that surgical techniques were seeing a phenomenal improvement at this time, thanks to the discovery of anaesthetics and antiseptics, while hospitals and training for nurses were being improved, in part due to the work of Florence Nightingale. As the Industrial Revolution drew to a close, the government began to become more involved in all aspects of society, leading to laws focused on improving public health.

c1900-present: Medicine in modern Britain

From 1900 onwards students should recognise that approaches to treatment and prevention saw a significant change. The development of magic bullets was a major breakthrough in the treatment of illness while government action was taken to improve public health. They should understand the impact of the NHS and improved access to healthcare and also the impact of government lifestyle campaigns such as mass vaccinations and healthy eating campaigns. They should also understand the impact of improvements in science and technology, leading to improvements in diagnosis and treatment. The first case study exemplifies how scientists such as Fleming, Florey and Chain developed treatments for specific diseases. Moving into the twenty-first century, the case study of the fight against lung cancer exemplifies the role of government, science and high-tech treatment in modern medicine and provides students with an opportunity to measure how much has changed in the understanding, treatment and prevention of disease since 1250.

Key terms

It may be useful to provide students with a list of key terms and concepts that they will need to be familiar with at the start of the course. Students should be familiar with the terminology found in the specification content.

The list of terms below is not intended to be a comprehensive checklist, rather simply a useful starting point for teachers to produce their own list of terms that their students may not fully understand or have difficulty spelling.

Students should understand chronological terms, such as medieval, Middle Ages, Renaissance, modern, and that, for example, 'the 1500s' is the sixteenth century and that 'c1900' means 'around 1900'.

They should understand terms such as government, the authorities and public health and they also need to be clear about the difference between prevention and treatment, and the Four Humours and Theory of Opposites.

Other key vocabulary for this option includes:

- anaesthetics
- antibiotics
- antiseptics
- apothecary
- bleeding
- bloodletting
- chemotherapy
- cholera
- the Church
- circulation
- diagnosis
- dissection
- DNA
- epidemic
- genetics
- inoculation
- laissez-faire
- miasma
- microbe
- observation
- pandemic
- penicillin
- physician
- purging
- radiotherapy
- supernatural
- vaccination

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2.3 Content exemplification and mapping

This section provides additional guidance on the specification content. It should be remembered that the official specification is the only authoritative source of information and should always be referred to for definitive guidance. Any examples provided here do not constitute additional specification content, and other relevant material illustrating aspects of change within periods can be used.

NB The column on changes from 2013 Edexcel History B has been deleted from this section.

c1250–c1500: Medicine in medieval England	Exemplification	Exemplification of the role of factors in change
1 Ideas about the cause of disease and illness • Supernatural and religious explanations of the cause of disease. • Rational explanations: the Theory of the Four Humours and the miasma theory; the continuing influence in England of Hippocrates and Galen.	• The belief that illness was a punishment from God. • The use of astrology in the diagnosis and treatment of illness, representing a new development in this time period. • The Theory of the Four Humours, created by Hippocrates in Ancient Greece and developed by Galen in Ancient Rome; promoted by the Church and used widely by doctors. • Miasma: the idea of disease being caused by bad air and foul smells.	• The role of individuals and institutions: the Church's influence and resulting continuity in beliefs about the cause of disease, as the Church promoted the Theory of the Four Humours and outlawed human dissection. • The role of attitudes in society: supernatural and religious explanations of illness.
2 Approaches to prevention and treatment • Approaches to prevention and treatment and their connection with ideas about disease and illness: religious actions, bloodletting and purging, purifying the air, and the use of remedies. • New and traditional approaches to hospital care in the thirteenth century. The role of the physician, apothecary and barber surgeon in treatment and	• Religious actions included prayer and flagellation. • The use of the Theory of Opposites, bleeding and purging to treat illness, based on the idea of the Four Humours. • Herbal remedies from the apothecary or mixed at home – most common form of treatment. • Hospitals provided by the Church as centres for recuperation rather than for the sick.	• The role of individuals and institutions: the Church's provision of some hospital care; the Church's influence over medical training for physicians, leading to continuity in this area. • The role of individuals and institutions: local government clearance of foul-smelling areas, such as overflowing cesspits, due to the belief in miasma. • The role of attitudes in society: preventative actions and treatments based on supernatural and religious beliefs.

care provided within the community and in hospitals, c1250–1500.	• Treatment and care for most sick people at home by the women of the household. • Availability of physicians only for the rich. • Apothecaries and barber surgeons: provided herbal remedies and carried out small surgeries, such as the treatment of haemorrhoids.	
3 Case study • Dealing with the Black Death, 1348–49; approaches to treatment and attempts to prevent its spread.	• Religious methods of prevention included fasting, prayers, pilgrimage, donations to the Church and flagellation. • Religious ideas about treatment included prayers and offerings to the Church. • A very broad spread of other treatments, including charms, potions and sitting in sewers to drive away the miasma. • Some rudimentary attempts at quarantine (not often successful).	• The role of individuals and institutions: the Church's promotion of religious methods to tackle the disease. • The role of individuals and institutions: introduction by local government of some measures to keep streets clean and free from excessively noxious smells. • The role of attitudes in society: attitudes were fatalistic: if it was God's will, you would die.

c1500–c1700: The Medical Renaissance in England	Exemplification	Exemplification of the role of factors in change
1 Ideas about the cause of disease and illness • Continuity and change in explanations of the cause of disease and illness. A scientific approach, including the work of Thomas Sydenham in improving diagnosis. The influence of the printing press and the work of the Royal Society on the transmission of ideas.	• Continuing use of the Theory of the Four Humours. • Thomas Sydenham's championing of observation over theory when diagnosing patients and development of the concept of 'species' of disease to improve observation. His book, *Observationes Medicae*, as the standard medical textbook for the next two centuries. • More widespread use of printing, allowing better access to up-to-date medical texts. • Founding of the Royal Society in 1660. Their sponsorship of scientists in research and assistance with publication, improving the spread of knowledge.	• The role of science and technology: printing more widespread and cheaper, improving the spread of ideas. • The role of science and technology: dissections leading to better understanding of the human anatomy. • The role of individuals and institutions: decline in the influence of the Church, and with it the focus on God as the cause of illness. • The role of individuals and institutions: Thomas Sydenham and studies of epidemiology and clinical medicine, though his impact was mainly posthumous.
2 Approaches to prevention and treatment • Continuity in approaches to prevention, treatment and care in the community and in hospitals. • Change in care and treatment: improvements in medical training and the influence in England of the work of Vesalius.	• The loss of many of England's hospitals following the dissolution of the monasteries. • Setting up of some free hospitals, funded by charitable donations and run by trained physicians instead of monks. • Publication by Vesalius, a professor of surgery in Padua, of *The Fabric of the Human Body* in 1543, with detailed drawings of human dissections, leading to an improvement in anatomical understanding. • Continuity in most medical training being theoretical and based on classical works such as Galen. Carrying out of some dissections.	• The role of individuals and institutions: the decline of the influence of the Church and the impact of this on both hospitals and medical training. • The role of science and technology: impact of printing, including that Vesalius' book could be distributed widely and cheaply.

3 Case studies • Key individual: William Harvey and the discovery of the circulation of the blood. • Dealing with the Great Plague in London, 1665: approaches to treatment and attempts to prevent its spread.	• William Harvey's *An Anatomical Account of the Motion of the Heart and Blood in Animals*, published in 1628, proved that blood circulated around the body. • Great Plague in 1665: government action to prevent its spread, including quarantining infected households, cancelling public assemblies and killing cats and dogs. Continuity in many treatments, similar to those used during the Black Death.	• The role of individuals and institutions: impact of Harvey's work – it began to be taught in medical schools towards the end of this period. • The role of individuals and institutions: local councils took greater action during the outbreak of the Great Plague. • The role of science and technology: new mechanisms such as the pump inspired scientists like Harvey to think of the body functioning as a machine. Some development of better microscopes.

c1700–c1900: Medicine in eighteenth- and nineteenth-century Britain	**Exemplification**	**Exemplification of the role of factors in change**
1 Ideas about the cause of disease and illness • Continuity and change in explanations of the cause of disease and illness. The influence in Britain of Pasteur's Germ Theory and Koch's work on microbes.	• Little change at the start of the period. Some theorising by scientists about germs being produced by decaying matter – spontaneous generation. • Continuity in the belief in miasma. • Publication in 1861 of Louis Pasteur's Germ Theory, which proved that microbes in the air caused decay. • Limited impact of Germ Theory on medicine in this time period because each disease had to be researched individually. • Robert Koch's development of Pasteur's work by developing a process for identifying specific microbes, such as TB and cholera.	• The role of individuals and institutions: Pasteur's discovery, which came when he was investigating why liquids turned sour for the brewing industry. • The role of science and technology: new, more powerful microscopes, which enabled Pasteur to observe tiny organisms in liquids. • The role of science and technology: Koch's process of growing colonies of bacteria on agar jelly and staining them with dyes. • The role of attitudes in society: the search for rational explanations in the aftermath of the Scientific Revolution.

2 Approaches to prevention and treatment • The extent of change in care and treatment: improvements in hospital care and the influence of Nightingale. The impact of anaesthetics and antiseptics on surgery. • New approaches to prevention: the development and use of vaccinations and the Public Health Act 1875.	• Change in hospital conditions from dirty, dingy places to clean, airy, modern spaces. • Impact of Florence Nightingale's ideas about hospitals and nursing on these changes. • Anaesthetics were developed, most notably chloroform, which was discovered by James Simpson in 1847. • Move towards an emphasis on the importance of keeping surgery clean and free from germs. Joseph Lister's use of carbolic acid to prevent infection during surgery. • Vaccination against smallpox; the introduction by the government of a nationwide vaccination program. • Some efforts by the government to improve public health, but real improvements only after the second Public Health Act of 1875, after the publication of Germ Theory.	• The role of individuals and institutions: Florence Nightingale's observations of high death rates in field hospitals during the Crimean War and her campaigns for cleaner, better hospitals and higher standards among nurses. • The role of individuals and institutions/The role of attitudes in society: the government's move away from its policy of *laissez-faire*; greater acceptance in society of government intervention in everyday life. • The role of individuals and institutions: smallpox vaccination made compulsory in 1852.
3 Case studies • Key individual: Jenner and the development of vaccination. • Fighting Cholera in London, 1854; attempts to prevent its spread; the significance of Snow and the Broad Street pump.	• Jenner's publication in 1798 of his observation that exposure to cowpox acted as a preventative for smallpox; term 'vaccination' coined. • Vaccination effective against smallpox developed. Limitations of Jenner's discovery: not a process applicable to other diseases. • Urgency in discovering the cause of cholera due to the epidemics that swept through London in the nineteenth century. • John Snow's discovery, through careful observation, of the source of a cholera outbreak in 1854, tracing it back to the Broad Street pump. Impact of his work.	• The role of individuals and institutions: Jenner's observation, as a rural doctor, that dairy maids rarely suffered from smallpox. • The role of individuals and institutions: parliament's grant of £30,000 to Jenner to open a vaccination clinic. • The role of individuals and institutions: observations by Snow and their impact – an understanding that cholera was waterborne led to greater acceptance for legislation on water supplies and sewerage – e.g. 1875 Public Health Act.

c1900–present: Medicine in modern Britain	Exemplification	Exemplification of the role of factors in change
1 Ideas about the cause of disease and illness • Advances in understanding the causes of illness and disease: the influence of genetic and lifestyle factors on health. • Improvements in diagnosis: the impact of the availability of blood tests, scans and monitors.	• Development of Germ Theory, isolating viruses and bacteria as different causes of infection and targeting them in different ways. • The discovery of the structure of DNA and the subsequent mapping of the human genome; the search for cures to genetic conditions. • Improved diagnosis as a result of x-rays, scans, blood tests and other technology enabling earlier interventions, and therefore more effective treatments.	• The role of science and technology: the study of genetics, enabling scientists to isolate genetic conditions that are hereditary. • The role of science and technology: wide variety of technological advances, enabling doctors to see inside the human body with more clarity, improving diagnosis and allowing for more targeted treatment. • The role of science and technology: monitors for things like blood pressure, enabling people to take control of their own health.
2 Approaches to prevention and treatment • The extent of change in care and treatment. The impact of the NHS and science and technology: improved access to care; advances in medicines, including magic bullets and antibiotics; high-tech medical and surgical treatment in hospitals. • New approaches to prevention: mass vaccinations and government lifestyle campaigns.	• Improvements in access to medical care. The impact of the NHS on access and provision. • Development of new drugs, including Salvarsan 606 and Prontosil, the so-called magic bullets. The use of chemical drugs to treat illnesses. • The impact of vaccination campaigns on diseases like polio and diphtheria. • Government-launched campaigns to promote the maintenance of good health to the population, for example, encouraging smoking cessation.	• The role of science and technology: genetic research, leading to improved skin grafts and better vaccines. • The role of science and technology: new technology, such as the MRI scanner, improving diagnosis and treatment in hospitals. • The role of individuals and institutions: increased government intervention in everyday life, e.g. the introduction of the NHS in 1948 and lifestyle campaigns and legislation.
3 Case studies • Key individuals: Fleming, Florey and Chain's development of penicillin.	• Alexander Fleming's discovery of penicillin in 1928. His publication, but not further development, of his findings. • Florey and Chain's interest in Fleming's research in 1938. Subsequent	• The role of individuals and institutions: Alexander Fleming's discovery of penicillin when researching antibacterial agents. Development of Fleming's original discovery by Oxford scientists

• The fight against lung cancer in the twenty-first century: the use of science and technology in diagnosis and treatment; government action.	government funding to develop penicillin into a usable treatment. • Lung cancer: diagnosis with new technologies such as CT scans; treatment with modern medical techniques such as radiotherapy and chemotherapy. Also some genetic treatments in development. • Government actions on lung cancer, including national 'Stop Smoking' campaigns, the steady reduction in permissible cigarette advertising and, most recently, the move to plain packaging for cigarettes.	Florey and Chain. Funding from the British and American governments to enable penicillin to be developed into a usable drug. • The role of science and technology: careful scientific method and the publication of scientific papers, allowing Florey and Chain to build on Fleming's research. • The role of science and technology: use of CT scanners in lung cancer diagnosis; treatments such as chemotherapy and radiation therapy. • The role of individuals and institutions: major campaigns to prevent lung cancer.

3. The British sector of the Western Front, 1914–18: injuries, treatment and the trenches

3.1 Introduction

The historic environment study examines the relationship between conditions in a locality – the British sector of the Western Front during the First World War – and their impact on the nature of illness and the provision of medical care, as well as the impact of provision for medical care in the locality in the broader context of developments in medicine in the early twentieth century.

The brutal conditions that this war created, including the trench system and new types of wounds and disease caused by new weapons and battle techniques, triggered new techniques for treating and healing patients, including solving the problem of blood loss.

The content is assessed through a question on features of the period and also through a historical enquiry.

For the historical enquiry, students will need to develop the skills necessary to analyse, evaluate and use contemporary sources to make substantiated judgements, in the context of the historical events studied. To aid teaching, the content is divided into two sections: the first covers the site in its historical context; the second covers knowledge, selection and use of sources relevant to this historic environment for enquiries.

There is a wide range of contemporary source material that can be used to investigate this environment: army records, newspapers, government reports, medical articles, personal accounts, photographs, hospital records, army statistics.

3.2 Content guidance

Students need knowledge of the trench environment and the situation on the Western Front during the First World War – events, places, individuals and significant developments outlined in the specification. Question 1 asks students to identify two key features of one aspect of the content with some related supporting evidence. Developed explanation of the key feature is not required. Question 2(a) requires students to use only sufficient knowledge to support their criteria for judgement, e.g. using contextual knowledge to validate the accuracy or typicality of the source content. Question 2(b) requires knowledge of the potential sources available. The Historic environment (Section A) does not require candidates to write extended amounts of contextual knowledge but to select and apply knowledge appropriate to the question asked.

The First World War broke out in 1914 and lasted for four years. The First World War saw a significant technological advancement in the way that countries fought one another: distance weapons such as new types of gun, bombs, gas shells and mines reduced the amount of hand-to-hand combat, while at the same time delivering a set of new, devastating injuries with which doctors were completely unfamiliar.

The environment for this study is the British sector of the Western Front and the theatre of war in Flanders and northern France: the Ypres salient, the Somme, Arras and Cambrai. Students need to understand the context in which the war was fought – including the trench system, the use of mines and the use of subterranean tunnels – and how the terrain and conditions impacted on illness, injuries and treatment. The underground hospital at Arras should also be covered.

Students should understand the problems of wounds from weapons such as rifles and bombs and that new techniques in the treatment of wounds and infection had to be found or existing techniques adapted. For example, the new x-ray had to be

developed into a mobile machine for use on the frontline, enabling doctors to find and remove shrapnel and bullets that were deeply embedded and lessen the chance of infection. The Thomas splint led to a dramatic reduction in deaths in soldiers with a broken femur.

Poison gas had been developed for use in trench warfare and this forced doctors to seek methods for treating the symptoms of gas poisoning, such as fluid on the lungs and temporary blindness.

The old problems of surgery – pain, infection and blood loss – had been solved in some respects during the nineteenth century, but the still-new methods had to be further developed for use in field hospitals, and quickly. The shelf life of donated blood stretched from seconds to weeks thanks to the use of preservatives such as sodium citrate, which meant that by 1917 Britain's first blood bank had been opened for the Battle of Cambrai.

Aside from the conditions created by the new weapons, conditions in the trenches also caused a variety of diseases which needed treating, for example trench foot and trench fever, caused by lice.

Students should understand that with so many casualties occurring in the field, the importance of *in situ* medical facilities was profound. The Western Front occupied rural territory that was far from the large hospitals of the cities; the transport was mainly powered by horse and therefore slow and difficult, particularly in muddy conditions. The British army had no choice but to set up a system for treating the significant number of casualties in the fields surrounding their trenches.

The work of the Royal Army Medical Corps (RAMC) and The First Aid Nursing Yeomanry (FANY) in transporting and treating patients should be covered. Students should understand the 'chain of evacuation' – a series of field posts focused on separate tasks, for example, assessing patients and dressing wounds. This significantly improved the efficiency of medical treatment at the frontline. At casualty clearing stations, the wounded were treated and either returned to active duty or evacuated to hospitals elsewhere in France and England.

Sources

Students should be aware of the range of types of local sources available to the historian, the sort of information they can yield, and their strengths and weaknesses. As we pass the 100th anniversary of the First World War, an enormous variety of memoirs and first-hand accounts of the Western Front are available more readily than ever before. These provide rich pickings for contemporary sources and are ideal for using with students in the classroom. As well as giving them additional layers of knowledge, they can use their prior learning to interrogate the sources.

Newspaper reports from the time also provide evidence that is useful to students studying this period, but should be approached with slightly more caution, in light of the need to keep morale high at the time. Students will need to be aware that they are not necessarily being provided with the complete picture.

Many doctors published their observations of war injuries or new techniques used during the First World War and these provide further documentary evidence of the medical developments of the time. Such sources tend to be very factual in focus. Students may find these useful for practising their skills of inference.

Developments in photography by 1914 meant that the First World War was heavily photographed. As with accounts by doctors, these sources provide a snapshot of the time and enable students to do the work of inferring from them and interrogating them. Photographs might prove particularly useful in helping students to consider further lines of enquiry as they often provide a very singular point of view with little further explanation.

In order to appreciate the significance of individual records, students also need an awareness of how national records such as government records, army statistics,

medical journals, national newspapers, newsreels, memoirs and illustrations can be used to establish context and a basis for comparison between the situation on the Western Front and general developments in medicine.

For more information on sources, please refer to the Guidance on sources and interpretations, which looks at question types, common problems, and teaching approaches and ideas.

4. Student timeline

The timeline below could be given to students, and could be further edited and added to by them. Inclusion of dates and events in this timeline should not be taken as an indication that these are prescribed: the official specification and associated assessment guidance materials are the only authoritative source of information and should always be referred to for definitive guidance.

1348	Arrival of Black Death in Britain
c1439	Invention of the printing press
1536–40	Dissolution of the monasteries – interruption of the Church's provision of hospitals
1543	Publication of Vesalius' *The Fabric of the Human Body*
1628	Publication of William Harvey's work on the circulation of the blood
1660	Establishment of the Royal Society
1665	Outbreak of the Great Plague
1676	Publication of Thomas Sydenham's *Observations Medicae*
1796–98	Development of smallpox vaccination by Jenner
1847	James Simpson's discovery of chloroform as an anaesthetic
1854	Severe cholera outbreak in London
1854	John Snow's observations linking the cholera outbreak to a specific pump
1856	Start of Florence Nightingale's lobbying of government to improve hospitals
1859	Publication of Florence Nightingale's *Notes on Nursing*
1860	Opening of Florence Nightingale's School of Nursing
1861	Pasteur's discovery of Germ Theory
1866	Start of carbolic acid being used by Joseph Lister to create an antiseptic environment for surgery
1875	Second Public Health Act
1876	Koch's isolation of the bacteria responsible for anthrax

4. Student timeline

1881	Pasteur's development of a vaccination for anthrax
1895	William Röntgen's discovery of x-rays
1901	Karl Landsteiner's discovery of blood groups, making transfusions possible
1909–10	Paul Ehrlich's discovery of the first magic bullet, Salvarsan 606
1914	Start of the First World War
1914	Albert Hustin's discovery that sodium citrate stops blood from clotting, making storage for transfusion possible
1914	Marie Curie's development of mobile x-ray units to be used to detect shrapnel on the frontline
1915	Use of chlorine gas on troops at Loos
1915	Use of chlorine-phosgene gas on troops at Ypres
1916	The Battle of the Somme
1917	First blood depot at the Battle of Cambrai
1917	Use of mustard gas on troops at Ypres
1928	Fleming's discovery of penicillin
1932	Discovery of the second magic bullet, Prontosil
1941	Florey and Chain's development of Fleming's discovery of penicillin into a usable treatment
1948	Launch of the NHS
1953	Franklin, Watson and Crick's discovery of the structure of DNA
1990	Mapping of the Human Genome

5. Resources

The sections below list a range of resources that could be used by students and teachers for this topic.

The first section lists information on free support materials available on the Edexcel website. On the GCSE History (9–1) from 2016 page:

- select the Teaching support tab, where resources are separated out by Plan, Teach, and Track and Assess;
- or select the Course materials tab, and then select the appropriate tab for Specification and sample assessments, Exam materials, or Teaching and learning materials.

The second section lists publishers who have been endorsed for GCSE (9–1) History. Endorsement means that a resource has been through our quality assurance process to confirm that it meets the teaching and learning requirements a specification is aimed at. Endorsement of a resource doesn't mean it's the only suitable material available, or that it is required to achieve the qualification.

The remaining sections list both endorsed resources and those that have not been endorsed. While these resources – and others – may be used to support teaching and learning, the official specification and associated assessment guidance materials are the only authoritative source of information and should always be referred to for definitive guidance.

Links to third-party websites are controlled by others and are subject to change. There are plenty of useful videos for History students on online sharing platforms, and any links below have been checked, but please exercise care before sharing social media links with students.

5.1 Free support materials

Resource	Details
Specification, sample assessment materials and specimen papers	The starting point for information on content and assessment in GCSE (9–1) History.
Past papers, mark schemes and examiner reports	An Edexcel Online login is required to access files with a silver padlock – check with your exams officer if you can't open them.
Getting Started Guide	An overview of the specification, to help you get to grips with the content and assessment requirements of the specification.
Guidance on sources and interpretations	Guidance on AO3 sources and AO4 interpretations, looking at question types, common problems, and teaching approaches and ideas.
Guidance on Paper 1	Teaching approaches and ideas for the thematic study and historic environment, with case studies from practising teachers.
Schemes of work	Sample outline schemes of work for each topic in the specification, in editable Word files. A digital interactive scheme of work is also available for both KS3 and GCSE.

Resource	Details
Mapping documents	Mapping documents to help support teachers in moving to Edexcel GCSE History.
Exemplar student answers	Exemplar student answers, including from summer 2018, with examiner commentaries and mark schemes. Exemplar student answers from summer 2019 will be available from late 2019.
Pre-recorded feedback events	Pre-recorded feedback by senior examiners on every option from the summer 2018 series, including exemplar student answers. Feedback on the summer 2019 series will be available from November 2019.
Past training content	Packs from past training events, such as getting ready to teach, mocks marking, and network meetings.
KS3 and KS4 baseline tests	Editable baseline tests to assess students at the start of each key stage and track progress from KS3 to KS4; developed as part of the Pearson Progression Service.

5.2 Endorsed resources*

Pearson – Designed to help develop confident, articulate and successful historians.

Hodder Education – The Hodder GCSE History for Edexcel students' book helps students achieve their full potential while ensuring pace, enjoyment and motivation.

Zigzag Education – Photocopiable resources for learning, revision and exam practice.

Anglia Tours – A range of fully-guided History tours which enhance both teaching and learning for the related Pearson qualification.

* You don't have to purchase any resources, including those from Pearson, to deliver our qualifications.

5.3 Resources for students

Resource	Details
Edexcel GCSE History (9–1) Medicine through time, c1250–present (Pearson, 2016)	Simple, inclusive and inspiring student book covering the key knowledge for this Edexcel topic, plus exam advice and sample answers.
Edexcel GCSE History (9–1) Foundation Medicine through time, c1250–present (Pearson, 2018)	A foundation version of the student book, with reduced text, simplified language and easy-to-understand diagrams; perfect for students targeting a grade 5.

5. Resources

Revise Edexcel GCSE (9–1) History: Medicine in Britain Revision Guide and Workbook (Pearson, 2017)	A combined revision guide and workbook, this resource covers the key topic information needed for revision, delivered in short, memorable chunks of content, as well as worked examples of how to tackle the exam questions, and further questions for students' independent practice.
Revise Edexcel GCSE (9–1) History: Medicine in Britain Revision Cards (Pearson, 2019)	Pocket-sized revision cards which cover the key facts in small digestible chunks so you can learn on the go. Each card has a question to test your knowledge and each pack contains an overview of the exam. Customers get a free online copy of the Revision Guide with each pack.
Revise Edexcel GCSE (9–1) History: Medicine in Britain Practice Papers Plus (Pearson, 2020)	A skills-focused companion to the Revise Edexcel GCSE (9–1) History revision guide on the same topic, this resource gives detailed guidance on each type of exam question, as well as a full practice paper, allowing students to put their skills to the test independently, but in a supported way.
Target Grade 5 Edexcel GCSE (9–1) History: Medicine in Britain, c1250–present Workbook (Pearson, 2018)	Workbook focused on key skills and barriers for students targeting grade 5.
Target Grade 9 Edexcel GCSE (9–1) History: Medicine in Britain, c1250–present Workbook (Pearson, 2018)	Workbook focused on key skills and barriers for students targeting grade 9.
Hodder GCSE History for Edexcel: Medicine through time, c1250–present (Hodder Education, 2016)	Student book written for this option in the new GCSE specification.
Hodder GCSE (9–1) History for Pearson Edexcel Foundation Edition: Medicine through time, c1250–present (Hodder, 2019)	Foundation version of student book written for this option in the new specification.
My Revision Notes: Edexcel GCSE (9–1) History Medicine through time, c1250–present (Hodder, 2017)	A revision guide featuring key content coverage, exam-style questions, revision tasks, activities and practical tips.
Edexcel GCSE (9–1) History Workbook: Medicine through time, c1250–present (Hodder, 2018)	Workbook designed for students to practise and perfect the knowledge and skills needed for the course.
Cathy Warren and Nigel Bushnell, *Schools History Project: Medicine and Surgery* (Pearson, 2009, updated edition 2013)	Textbook written for the 2009 Edexcel GCSE History B specification.
Ian Dawson, Dale Banham, Dan Lyndon, *Edexcel Medicine and Health Through Time* (Hodder Education, 2009)	Textbook written for the 2009 Edexcel GCSE History B specification.

BBC Education Medicine through time www.bbc.co.uk/education/topics/zhphvcw	A set of videos aimed at GCSE students.
Science Museum Brought To Life: Exploring the History of Medicine www.sciencemuseum.org.uk/broughttolife	Extremely detailed website covering most aspects of the course.
Ken Follett, *World Without End* (Pan Books 2008) Also a TV series – clips available on YouTube	Good for the Middle Ages. Shows the juxtaposition of medical treatments promoted by the Church and provided by local wise women. Also provides information on the Black Death.
Pain, Pus and Poison: The Search for Modern Medicine www.bbc.co.uk/programmes/p01f51s5	Documentary series about developments in surgery and treatment. The BBC website contains clips and related links from the BBC and across the web.
Scream: A History of Anaesthetics	Documentary detailing the development of anaesthetics in the nineteenth century. Can be found on YouTube.
Seven Wonders of the Industrial World: Bazalgette's Sewers	Covers the cholera epidemics of the nineteenth century and actions taken in relation to them (note that Bazalgette is no longer specified content). Can be found on YouTube.
CancerProgress.Net www.cancerprogress.net/timeline/lung-cancer	An American website with a timeline mapping the fight against lung cancer.
https://www.bbc.co.uk/cbbc/shows/horrible-histories	The iconic CBBC series that brings history alive. Not all episodes are available but between iPlayer and YouTube many can be found.

5.4 Resources for teachers

Resource	Details
William Bynum, *The History of Medicine: A Very Short Introduction* (Oxford University Press, 2008)	Good overview. Useful to read when preparing to teach the topic.
Carole Rawcliffe, *Medicine and Society in Later Medieval England* (Sutton Publishing, 1995)	Detailed information about the medieval period with many quotes from original sources.
Rosemary Horrox, *The Black Death* (Manchester University Press, 1994)	A collection of contemporary accounts of the Black Death, including accounts of its impact and theories about its origins and treatment.
Emily Cockayne, Hubbub: *Filth, Noise and Stench in England, 1600–1770* (Yale University Press, 2008)	Very readable text about public health and medicine 1600–1770, covering the Great Plague.

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Evelyn Lord, *The Great Plague: A People's History* (Yale University Press, 2014)	Provides details of the impact of the 1665 outbreak of the plague on the whole country, from first-hand accounts.
Richard Thomas Williamson, *English Physicians of the Past* (General Books LLC, 2010)	Provides additional detail about Sydenham and Harvey and their work.
Sandra Hempel, *The Strange Case of the Broad Street Pump* (University of California, 2015)	Provides details of the cholera epidemics and public health conditions in nineteenth century London, using a wide variety of contemporary sources.
William Bynum, *The History of Medicine: A Very Short Introduction* (OUP, 2008)	Oxford University Press, A Very Short Introduction Series An interesting and well-written series covering a wide variety of topics that serve as an excellent overview.
Thinking History activities http://thinkinghistory.co.uk/ActivityKS/ActivityGCSESHP.html	A number of activities are given under the heading 'Development Studies: Medicine'.
The Wellcome Library http://wellcomelibrary.org/	Wide variety of articles and publications relating to many aspects of the course.
Thackray Medical Museum www.thackraymedicalmuseum.co.uk	Online resources, as well as talks and tours for visitors.
Hunterian Museum www.rcseng.ac.uk/museums/hunterian	Runs GCSE Medicine through Time workshops.
National Archives, Learning Curve http://www.nationalarchives.gov.uk/education/sessions-and-resources/	Resources are available on key people and events, for example, the Great Plague, 1665; the cholera epidemic, 1854; Florence Nightingale.
Teachit History website https://www.teachithistory.co.uk/thematic-studies/medicine-health/tags/3747	Teachit History website. A collection of resources for Medicine and Health.
https://www.tes.com/teaching-resources/hub/secondary	A comprehensive bank of resources for teachers, some free some pay for.
School History Website http://www.schoolhistory.co.uk	A very comprehensive website with resources for teaching history. GCSE resources are arranged by exam board and cover most modules. Some resources are free but to get the full range available there is a subscription payment (currently £72 per year).
https://www.bbc.co.uk/teach/class-clips-video/medicine-through-time/zdcy8xs	Short videos on a range of topics within Medicine Through Time aimed at KS3 and GCSE students.

5.5 Resources for the historic environment

Resource	Details
Edexcel GCSE History (9–1) Medicine through time, c1250-present (Pearson, 2016)	Student book written for this option in the new GCSE specification.
Hodder GCSE History for Edexcel: Medicine through time, c1250–present (Hodder Education, 2016)	Student book written for this option in the new GCSE specification.
Susan Cohen, *Medical Services in the First World War* (Shire Publications, 2014)	A short but comprehensive introduction to the topic.
Ana Carden-Coyne, *The Politics of Wounds: Military Patients and Medical Power in the First World War* (Oxford University Press, 2014)	Very detailed study of the topic. Good background reading for teachers and higher ability students.
Andrew Davidson, *Fred's War: A Doctor in the Trenches* (Short Books, 2013)	Biography of Fred Davidson, one of the first doctors to receive the Military Cross. A rich resource of contemporary photographs.
Lyn MacDonald, *The Roses of No Man's Land* (Penguin, 2013)	Combines first-hand accounts of the war from a wide range of individuals, including nurses, surgeons and ambulance drivers.
BBC Drama, The Crimson Field	Dramatisation of MacDonald's book.
Anzac Girls	A series following the lives of Australian and New Zealand nurses working on the Western Front. Excellent context for the topic.
WW1: The Medical Front www.vlib.us/medical/	A collection of relevant articles and published works. Includes a variety of contemporary sources and links to other helpful websites.
A War Nurse's Diary: Sketches From a Belgian Field Hospital www.ourstory.info/library/2-ww1/warnurse/wnTC.html	Contemporary account of a nurse's experiences in field hospitals.
Military Medicine on the Western Front http://myweb.tiscali.co.uk/drericwebb/docs/mgw.htm	Provides a good overview of the topic.
Army Medical Services Museum, Aldershot	A museum dedicated to the development of medicine on the frontline.
National Army Museum War Surgery, 1914–18 www.nam.ac.uk/whats-on/lunchtime-lectures/video-archive/war-surgery-1914-18	Video and transcript of a talk about the improvements in the care of the wounded in casualty clearing stations and base hospitals in France during the First World War.

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BBC How did WW1 change the way we treat war injuries today? www.bbc.co.uk/guides/zs3wpv4	A useful and visual overview.
BBC World War One: Medicine www.bbc.co.uk/schools/0/ww1/25403864	Useful micro-site with sections on illness and injury, medical advances and treating soldiers.
Imperial War Museum First World War: Firsts of the First World War www.iwm.org.uk/history/first-world-war	Useful articles and sources on the Western Front, trenches etc.
First World War Centenary Battlefield Tours Programme www.centenarybattlefieldtours.org/	The programme is designed to provide the opportunity for a minimum of two students and one teacher from every state-funded secondary school in England to visit battlefields on the Western Front between 2014 and 2019, as part of the Government's plans to commemorate the centenary of the First World War. The site also has teaching resources.
https://www.ichistory.com/	Collection of free and paid for resources including Medicine through Time and Medicine in WW1.

There is no requirement to visit the historic environment site, but for those wishing to do so, Pearson have endorsed Anglia Tours, Surgery and Treatment on the Western Front. Other tours to the Western Front also operate which visit the Ypres Salient, Hill 60, the Somme, Arras and Cambrai.