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

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Compare</th>
<th>Evaluate</th>
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<td>Ideas about the cause of disease and illness: Little change at the start of the period. Some theorising by scientists about germs being produced by decaying matter – spontaneous generation.</td>
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<td>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.</td>
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<td>Continuity in the belief in miasma.</td>
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Publication in 1861 of Louis Pasteur’s Germ Theory, which proved that microbes in the air caused decay.

The role of individuals and institutions: Pasteur’s discovery, which came when he was investigating why liquids turned sour for the brewing industry.

Limited impact of Germ Theory on medicine in this time period because each disease had to be researched individually.

The role of science and technology: new, more powerful microscopes, which enabled Pasteur to observe tiny organisms in liquids.

Robert Koch’s development of Pasteur’s work by developing a process for identifying specific microbes, such as TB and cholera.

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

Approaches to prevention and treatment: Change in hospital conditions from dirty, dingy places to clean, airy, modern spaces.

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.

New approaches to prevention: the development and use of vaccinations and the Public Health Act 1875.

Anaesthetics were developed, most notably chloroform, which was discovered by James Simpson in 1847.

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.

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 from 1866.

Vaccination against smallpox; the introduction by the government of a nationwide vaccination program. The role of individuals and institutions: smallpox vaccination made compulsory in 1852.

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.

Case studies: Key individual: Jenner and the development of vaccination. 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.

The role of individuals and institutions: parliament’s grant of £30,000 to Jenner to open a vaccination clinic.

Fighting Cholera in London, 1854; attempts to prevent its spread; the significance of Snow and the Broad Street pump.

Urgency in discovering the cause of cholera due to the epidemics that swept through London in the nineteenth century.

The role of individuals and institutions observations by Snow of the source of a cholera outbreak in 1854, tracing it back to the Broad Street pump 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.