The 20th Century saw many advances such as the development of the first X machines and MRI scans can be done to ‘look inside’ a patient.

Powerful photographic microscope allowed DNA to be discovered.

Flexible tubes with cameras can go into the body; scans can be done to ‘look inside’ a patient, dialysis machines work as a heart or kidney.

Hypodermic needles and intravenous drips enable measurement of medicine to be precise.

Computerisation, lasers, microchips etc have all become central to medical treatment.

The Scientific Revolution lead to increased knowledge in the sciences and new equipment.

Microscopes Enabled scientists to study matter closely.

Developments in Chemistry helped scientists understand chemicals in the body.

In 1645. The Royal Society was founded to help share and celebrate new discoveries in medicine, the sciences and astronomy, amongst other.

The development of the printing press in the 1450s enabled more people to access medical texts.

There were improvements in clocks, machines etc, which were then compared to the body.

Van Leeuwenhoek’s improvements in the microscope in the 1600s allowed him to see ‘micro-organisms’

New scientific approaches began to be used in medicine such as conducting experiments and carefully recording results.

The Medieval Church kept and controlled ancient texts in its libraries and banned some books.

Priests controlled education and the Church was influential in the training of doctors in universities. It also ran hospitals though few took in the sick; they were places of ‘hospitality’ mainly for the elderly.

The Church encouraged the continued belied in the teachings of Hippocrates and Galen- the Four Humours, spiritual, miasma and natural causes.

The Church was weakened after the Reformation of the 1500s that saw the Protestant Churches emerge. Church domination of medicine declined.

1900-2000

1350-1750 The Scientific Revolution

1350-1750 The Medieval Church

Impact of ideas and the period on Medicine

International co-operation became easier and more common in the 20th Century due to improved communication such as the fax and computer.

The Human Genome Project 1986-2001 involved scientists from around the world working together to map all the genes in the human body.

Governments increasingly work together through organization like the UN to improve world health and share knowledge as well as medicine. International aid organizations also work to improve health in the Developing World.

Multi- National groups and conglomerates such as GlaxoSmithKline manufacture medical supplies in several countries and sell their medicine around the world.

1900-2000 International Involvement

The development of steam engines trains and canals led to the technology to pump clean water into towns and cities e.g. building pipelines and embankments. Bazalgette was able to build an underground tunnel system by 1865 for London which included 83 miles of main brick sewers.

Profit from industry could be used to improve public health and help businesses make more money mass-producing drugs and medical supplies.

Private companies often stepped up to improve Public Health and resolve problems with water and sanitation (sewage systems).

Massive urbanization led to the call for improvement in Public Health and the government introduced the 1848 Public Health Act as they abandoned their Laissez Faire attitude.

Manufacturing techniques led to possible applications in medicine such as the dyeing industry and glass production.

1750-1900 The Industrial Revolution

During this time people returned to study and question the Greek and Roman doctors. They began to question old idea, men like Copernicus questioned the belief that the sun travels around the earth.

Andreas Vesalius discovered Galen was wrong about the human jaw bone and how blood moves from one side of the other in the heart. He explained this in ‘The Fabric of the Human Body’ 1543.

William Harvey developed this work and discovered that the heart works like a pump and published it in ‘An Anatomical Account of the Motion of the Heart and Blood in Animals’ 1657. The discoveries of Vesalius and Harvey did little to help people live longer.

Ambroise Pare, an army surgeon, wrote ‘ Works on Surgery’ 1575 and explained his method of bandaging wounds instead of sealing them with boiling oil which reduced infection and helped surgical patients survive.

1350-1750 The Renaissance