Hippocrates = 460- 370BC 4 humours Greek doctor Importance of observation Wrote 60 books Father of modern medicine Hippocratic oath	 Galen 130-210 BC Developed Hippocrates ideas Practiced dissection on animals Theory of opposites Wrote books 	Avi senna =980- <u>1037</u> - Translated books into Arabic - Wrote texts	 John Arderne =1307-1392 Surgeon (war) Developed a pain killing ointment –not cauterisation Wrote books Speedy amputations Challenged ancient ideas Charged the rich Gave treatment to the poor for free
 Ambroise Pare 1510-90 Created prosthetic limbs Developed the use of ligatures ointment Wrote a book Army surgeon 	 <u>Andreas Vesalius</u> <u>=1514-64</u> Proved Galen wrong 1 jaw bone not 2 Wrote the fabric of the human body Carried out dissections (humans) surgeon /anatomist 	 William Harvey =1578-1657 Physician Blood pumped one way – heart as a pump Theorehcal work as couldn't see capillaries Worked on amphibians so could see blood pumping slowly Disproved Galen's theory of the liver being at the centre of the body Challenged bleeding as a cure Wrote on the motion of the heart 	 Thomas Sydenham 1624-1689 Father of modern medicine Focussed on observation Importance of exercise/moderation Believed in little intervention Scientific methods- each disease needed a separate treatment Treated malaria successfully Diagnosed hypochondria Developed a treatment for smallpox Believed in bleeding and cool therapy.

 John Hunter- 1728- 1793 War surgeon Developed treatment for gunshot wound and amputation Dissected bodies/ taught anatomy Accused of burking 	 Edward Jenner 1749-1823 Recognised that cowpox made people immune to smallpox. Proved this theory on James Phipps Submitted his findings to the royal society in 1797- was told his ideas were too revolutionary 1798 published an enquiry into the cause and effects of the vaccine Worked on the vaccination 1802 was awarded £10,000 and a further £20,000 in 1807 by the government 1807 the Royal college of Physicians confirmed how affective vaccination was Many opposed his work 	 Edwin Chadwick 1800- 1890 Secretary to the Poor Law Commissioners 1942 wrote report on the sanitary conditions of the labouring population Made the link between the poor and disease Saw the need to improve living conditions Pressured the government which lead to 1848 Public Health Act 	 John Snow 1813-1858 Did not accept the theory of miasma Wrote' on the mode of communication of cholera' Plotted cases of cholera and identified the source to be the Broad Street pumpcesspit Before the Germ Theory therefore not widely accepted Also responsible for giving Queen Victoria Chloroform
 Louis Pasteur 1822- 1895 Chemist Father of microbiology Disproved spontaneous generation Invented pasteurisation Rescued the silk industry Came up with and proved Germ Theory (1864) Built upon Jenner's work Learned how to grow vaccines Rabies vaccination Studied chicken cholera Trialled a vaccine for anthrax 	 Robert Koch 1843-1910 Microbiologist built upon Pasteur's work Invented a way to stain bacteria Bacteria could then be seen under the microscope Identified bacteria causing anthrax, TB and cholera (1876,1882,1883) Produced a serum to tackle diphtheria in 1891- this was used by Lister from 1895. 	 Paul Ehrlich 1854-1915 Worked for Koch initially Used staining technique to study blood cells Worked on immunity developing an anti- diphtheria serum Worked on chemotherapy Created the first effective treatment for syphilis salvarsan 606 (1910) 	 James Simpson 1811- 1870 Developed obstetric forceps In 1847 experimented using chloroform on himself and friends Recognised that chloroform needed to be used carefully Advocated by Queen Victoria

 Joseph Lister 1827- 1912 Improved surgical conditions Sterilised operating rooms using Carbolic spray Surgical instruments were sterilised too Reduced mortality rates from 46% to 15% in three years Developed a machine to spray carbolic spray 1871 Father of antiseptic surgery 	 <u>Charles Chamberland</u> <u>1851-1908</u> Invented a steam steriliser for medical instruments (1881) Discovered heating instruments in water at 140c for 20 mins completely sterilised them Published paper on the process at 1886 	 Ignaz Semmelweiss <u>1818-1865</u> Worked as a director of the maternity clinic in Vienna general hospital Made the link between infection and hand washing on maternity wards Deaths were drastically reduced Know as the 'saviour of mothers' 	 Florence Nightingale 1820-1910 Worked in the Crimean war Cleaned up hospitals Aimed to make nursing an honourable profession Wrote 'notes on hospitals' setting out guidelines of how to run clean , safe hospitals
 <u>Mary Seacole 1805-</u> <u>1881</u> Set up the British Hotel behind the lines during the Crimean war Treated the wounded and sick Discriminated against because she was black 	 Elizabeth Garnett 1836-1914 No university in Britain would accept her on to a medical course In 1865 became one of the first female doctors Despite receiving the highest marks the Society of Apothecaries changed its rules to prevent women from taking the exam Unable to work in a hospital Set up her own practice, helping the poor (1872) Learned French to obtain a degree Gained membership of the B.M.A-the only female member for 20 years (1873) Helped set up London School of Medicine for Women (1874) 	 <u>Sophia Jex Blake 1840-</u>1912 Female pioneer, enrolled in the Queens College in 1858- her father limited her career by insisting she would not be paid Advertised for more women to apply to Edinburgh University after the rejected her on gender grounds Six other women joined the course with her 	 Joseph Bazalgette 1819- 1891 Engineer, 1856 became London's Metropolitan board of works Chief Engineer Due to the cholera epidemics and the Great Stink of 1858, was contracted to build sewers By 1866 most of London was connected to a sewer network Bazalgette built 1100 miles of supporting sewers 85 miles of main sewers Many of London's existing sewers were built by Bazalgette as he envisaged an increased population so built more than required

 William Farr 1807-1883 Civil servant, driving force behind registering births, marriages and deaths Used statistics to map patterns in deaths 	 <u>Thomas Southwood</u> <u>Smith 1788- 1861</u> Worked at London Fever Hospital Studied diseases linked to poverty Provided data to support Chadwick's reports 	 Thomas Barnardo 1845- 1905 1866 trained as a doctor Appalled by poverty in the East End Set up the Ragged School for hungry children Served the unemployment food also helped the needy find work Fresh Air Fund to give children breaks outside of the polluted city Tried to make a better life for children 	 Charles Booth 1840- 1916 Investigated poverty in Liverpool and London 35% of London population living in poverty disproving the theory that it was 25% Wrote 'Life and labour of the people'
 <u>Seebohm Rowntree</u> <u>1871-1954</u> Born into a rich family of chocolate makers Inspired by Booth's work investigated poverty in York Influenced Lloyd George and Beveridge Changed government attitudes to poverty 	 Karl Landsteiner 1868- <u>1943</u> Discovered different blood groups that could be matched to transfusions 1915 Blood Banks were set up on the Western front 	 <u>Alexander Fleming</u> <u>1881-1955</u> Lister had used penicillin in the 19th century but not published his findings 1928 studying influenza noticed that mould was growing on petri-dishes Noticed a bacteria free area around the mould Fleming named the substance penicillin Wrote many papers on bacteriology, immunology and chemotherapy 	 Howard Florey and Ernst Chain Researched penicillin after Fleming published his findings Experimented on mice, then humans Proved the effectiveness of penicillin Funded by the US government Could be used to treat a range of infections

James Dewey Watson and Francis Crick

- Studied DNA
- Used other research to show the molecular structure of DNA
- Explained how hereditary information is coded on it
- Helped rapid advances

Harold Gillies 1882-1960

- Persuaded the army to set up special hospitals for facial repairs during WW1
- By 1917 over 500,000 men had been treated by Gillies and his colleagues

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Archie Mcindoe 1900-1960

- Set up a specialist hospital to treat burns during WWII
- Performed many surgeries to airmen's burnt hands and faces
- Patients became known as 'Mcindoe's guinea pigs'

William Beveridge

- Published a report in 1942 outlining ways in which to find ways of fighting want, disease, ignorance, squalor and idleness
- Resulted in the introduction of the welfare state

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- Establishment of the NHS 1948 followed
- The NHS proposed treatment from the cradle to the grave