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| **Paper 1: Monday 4th June 2018: AM.****Medicine in Britain: c1250-present.**Image result for cartoon image of cross**Medieval England****1250-1500** | **Causes of illnesses** | **Prevention and Treatment** | **Individuals** |
| **Religious:** Belief that God caused illnesses. **Supernatural:** Astrology also used to help diagnose illnesses. Image result for four humours for children**Rational:** Four Humours Theory: Body made of four liquids (blood, phlegm, black and yellow bile). Imbalance of these humours can cause illness and disease. **Hippocrates****Miasma:** Belief that bad air was harmful and cause illnesses.  | Image result for cartoon of praying**Supernatural treatments:** Praying, fasting + Pilgrimages. **Rational treatments:** Bloodletting, leeches + purging.Herbal remedies also used to treat the sick. Medieval people also encouraged to take care of their bodies – exercise, sleeping and keeping clean. **Physician:** Diagnosed illnesses and suggested treatments. Studied patients’ blood and urine. **Apothecary:** Mixed herbal remedies. **Barber Surgeon:** Performed simple surgery.**Hospitals:** Owned and run by the Church. **Home:** Majority of sick cared for at home (women).  | **Hippocrates:** Four Humours Theory.+ = Observed patients/recorded symptoms + Hippocratic Oath. - = Ideas on causes of disease were wrong. **Galen:** Theory of Opposites. Image result for cartoon of a pig+ = Wrote over 250 books on medicine.- = Made mistakes – Jaw bone made of 1 bone not 2. |
| **Case Study: Black Death (1348)** |
| **Causes:** Sent by God as punishment, bad air that corrupted the body’s four humours.**Treatment:** Prayer, charms, bleeding and purging, sniffing strong herbs, and fires lit to remove bad air. **Prevention:** Pray to God, Flagellants + streets cleaned.  |
| **Key Words** | **Key Words** | **Key Words** |
| **Diagnosis:** Identify illness based on symptoms. **Miasma:** Bad air that believed to cause diseases.**Physician:** Qualified person to practice medicine.**Rational:** Idea based on logic. **Supernatural:** Ideas not explained by science/nature.  | **Bloodletting:** Drawing blood from the sick.**Herbal Remedy:** Medicine made from plants/herbs.**Pilgrimage:** Journey to sacred place.**Purging:** Removing humours from the body.**Purifying the air:** Removing foul smells from the air. **Regimen sanitatis:** Instructions to help treat the sick. | **Bubonic Plague:** Disease spread by bacteria (sneezing).Image result for cartoon of a rat**Flagellants:** People who whipped themselves to ask for God’s forgiveness to avoid plague. **Quarantine**: Separating sick to stop spread of disease.  |
| **Renaissance England****1500-1700**Image result for cartoon of the printing press | **Causes of illnesses** | **Prevention and Treatment** | **Individuals** |
| **Continuities:** Miasma Theory, influence of Church during epidemics and that supernatural beliefs. **Changes:** Most accepted that illnesses were not sent by God, decline of importance regarding the Four Humours Theory and analysis of urine.There was a move away from old ideas about the causes of illness but they had not been replaced!  | Related image**Continuities:** Bloodletting, herbal remedies, removal of bad air, use of apothecaries + surgeons for the poor and role of women caring for the sick who could not go to hospitals. **Changes:** People looked for chemical cures for diseases, Renaissance hospitals began to treat people with wounds and infectious diseases and Pest Houses.  | **Thomas Sydenham:** ‘*English Hippocrates’*.+ = Placed importance on observing a patient.- = Doctors/physicians still reliant on Galen’s work. **Vesalius:** *‘On the Fabric of the Human Body’.* .+ = Corrected 300 mistakes by Galen on anatomy.- = Caused controversy by challenging Galen’s work. **William Harvey:** Circulation of the blood. + = Proved that arteries and vein were linked together.- = Considered to be mad as challenged Galen’s work. |
| **Key Words** | **Key Words** | **Case Study: Great Plague (1665)** |
| Image result for cartoon of science experiments**Epidemic:** Disease that spreads quickly.**Printing Press:** Machine for printing text/pictures.**Renaissance:** Revival of ideas from 1500-1700. **Royal Society:** Set up in 1660 to discuss new ideas in medicine and science. Sponsored scientists.  | Image result for cartoon of a pomander**Pomander:** Ball containing perfumed substances. **Transference:** Belief that an illness can be transferred to something else. **Pest House:** Hospitals that specialised in one disease.  | **Causes:** Unusual alignment of the plants, sent by God as punishment, imbalance of Four Humours + Miasma. **Treatment:** Prayer, quarantine, fasting, smoking tobacco to ward off miasma + Plague Doctors.**Prevention:** Local governments tried the following: banning public meetings, closing theatres, sweeping the streets, burring barrels of tar and sweet smelling herbs to ward off miasma, killing cats and dogs.  |
| **Industrial Britain****1700-1900**Image result for cartoon of a factory | **Causes of illnesses** | **Prevention and Treatment** | **Individuals** |
| **Continuities:** Miasma Theory, influence of Church during epidemics and that supernatural beliefs.Image result for cartoon of germ theory**Changes:** Germ Theory (1861) disprovedSpontaneous Generation Theory and believed that germs cause disease in human body. **Pasteur/Koch.**  | **Hospital Care:** c18 Hospitals were dirty, overcrowded and in poor conditions. **Nightingale.**  **Surgery:** c18 surgery was dangerous, problem of pain, infection and bleeding. **Simpson/Lister.** **Vaccinations:** c18 Smallpox massive killer. **Jenner**. **Cholera:** Epidemics in 1831, 1848-9 and 1854. **Snow.** **Public Health Act - 1848:** Not compulsory + no change.**Great Stink-1858:** Introductions of sewers. **Bazalgette.****Public Health Act: 1875:** Compullsory and forced authorities to provide clean drinking water, build public toilets and dispose of sewage to avoid pollution. | **Louis Pasteur:** Germ Theory (1861).+ = Identified that germs cause disease and illnesses.- = Unable to identify specific germs. **Robert Koch:** Microbes (1867). + = Discovered microbes cause specific illnesses. - = Took time for his work to be widely accepted. **Florence Nightingale:** *‘Notes on Nursing’ (1859)*. + = Improved conditions in hospitals. - = Had to fight hard in order to change attitudes. **James Simpson:** Chloroform as an anaesthetic (1847). + = Provided safer alternative to Laughing Gas + Ether. - = Difficultly in gauging correct dose to be used.**Robert Lister:** Carbolic Acid as an antiseptic (1865). + = Antiseptic surgery – killing germs from wounds. - = Opposed because of poor knowledge Germ Theory.**Edward Jenner:** Vaccination. + = Discovered vaccination for Smallpox (1796). - = Vaccination not compulsory until 1852 by state.**John Snow:** Discovered cause of Cholera (1848). + = Concluded it caused by dirty drinking water. - = Government unwilling to pay for improvements.**Joseph Bazalgette:** Introduced Sewer system (1865). + = Built over 1300 sewers in London. - = Size of project took time until completed in 1875. |
| **Key Words** | **Key Words** |
| Image result for cartoon picture of a microscope**Englightenment:** Focus on change than continuity. **Germ Theory:** Theory that Germs cause disease.**Microbes:** Living organism that can only be seen under a microscope. **Spontaneous Generation Theory:** Belief that microbes are released when things decay, rather than being the cause and that they are spread by miasama.  | **Anaesthetic:** Used to make someone unconcious. **Antiseptic surgery:** Killing bacteria before operations.**Aseptic surgery:** Operation that takes place in a strictly controlled germ-free environment.**Inoculation:** Deliberately infecting a patient with a disease in order to become immune to it. **Vaccination:** Injection of weakneed organisms to give body resistance against disease. **Great Stink:** Exposed sewage on the River Thomas created awful smell near Houses of Parliament. **Laissez-Faire:** Government’s attitude that it should not interfere with matters relating to Public Health.  |
| **Modern Britain****1900-present**Image result for cartoon of DNA | **Causes of illnesses** | **Prevention and Treatment** | **Individuals** |
| By 1900, scientists realised not all diseases were caused by microbes. Discovery of DNA (1953) meant scientists understood how hereditary diseases were caused. E.g. Down’s Syndrone. **Crick and Watson.****Lifestyle choices impact on health:** smoking, poor diet, alcohol, sharing of bodily fluids and exposure to excessive amounts of sun. **Improvements in diagnosis:** X-ray, CT/MRI scans, ultrasound, Blood testing and pressure monitor. | **Magic Bullets:** Salvarson 606. **Paul Ehrlich.****Antibiotics:** Pencillin discovered in 1928. **Alex Fleming.**Mass produced for D-Day in 1944. **Florey and Chain.** **High-tech medical/surgical treatement:** Dialysis, Prosthetic limbs, Keyhole surgery, ECG, Endoscope. **Changes in care/treatment:** NHS: Hospitals, GP’s, dentists, ambulance services + health visitors. **Government lifestyle campaigns:** *Change4life* + campaigns warning of dangers of drug/binge drinking.  | **Crick and Watson:** Discovered DNA (1953). + = Scientists explore causes of hereditary diseases. - = Doctors still unable to treat genetic conditions.**Paul Ehrlich:** Created first Magic Bullet (1909). + = Discovered Salvarson 606 to treat Syphilis. - = Magic Bullet can only treat one specific disease.**Alex Fleming:** Discovered Penicillin (1928). + = Noticed ‘white mould’ killed bacteria - Penicillin. - = Unable to fund further research + went no further.**Florey and Chain:** Mass produced Penicillin (1944). + = Developed Penicillin and mass produced it. - = Reliance of USA for funding.**Fight against Lung Cancer:****Diagnosis:** Difficult to diagnose early on.**Treatment:** Transplants, radio/chemotherapy. **Prevention:** Smoking banned in public places, raising age of buying cigarettes and stop smoking campaigns.  |
| **Key Words** | **Key Words** |
| **DNA:** Carries genetic information about a living organism.**Genome:** Each human being has a unique DNA.**Human Genome Project:** Scientists worked to decode and map out the human genome. **Hereditary diseases:** Diseases that are passed down from one generation to another.  | **Antibiotic:** Medicine that destroys the growth of bacteria inside the body.**D-Day:** Allied forces in WW2 invade northern France.**Magic Bullet:** Chemical that kills specific bacteria in the body. **General Practitioner:** Community-based doctor who treats minor illnesses.  |
| **Paper 1: Monday 4th June 2018: AM.****The British Sector of the Western Front,** **1914 – 1918.**Image result for world war 1 cartoon images | **Context of the British sector of the Western Front** | **Conditions requiring treatment on the Western Front** |
| **The Ypres Salient:** Germans had the advantage with being on the higher ground. Tunnelling and mines were used by the British at Hill 60. First Battle of Ypres - 1914.Second Battle of Ypres -1915.Third Battle of Ypres - 1917. | **The Somme:** Battle of the Somme - July-November 1917.1st day of battle, 60,000 casualties and 20,000 died. In total, 400,000 Allied casualties and this put pressure on medical services on the Western Front. | **Ill health: Trench fever:** caused by body lice and included flu-like symptoms including high temperature. **Treatment:** Passing electric current through infected area was effective. **Prevention:** Clothes disinfected and delousing stations were set up. Affected 0.5 million.**Trench foot:** caused by soldiers standing in mud/waterlogged trenches. **Treatment:** soldiers advised to keep clean but worst cases, amputation. **Prevention:** Changing socks + keeping feet dry and rubbing whale oil into feet. Affected 20,000 in winter of 1914-1915. **Shell-shock:** caused by stressful conditions of war and symptoms included tiredness, nightmares, headaches and uncontrollable shacking. **Treatment:** Not well understood. **Prevention:** rest and some received treatment in UK. Affected 80,000 and some were shot!**Weapons of war: Rifles:** fired one at a time/loaded from cartridge case creating rapid fire.**Machine guns:** Fired 500 rounds a minutes. Pierced organs and fracture bones. **Artillery:** Bombardments were continuous, Artillery fire caused half of all causalities.**Shrapnel:** Caused maximum damage exploded mid-air above enemy. Killed/injured.**Chlorine Gas:** Led to death by suffocation. 1915, gas masks given to all British soldiers. **Phosgene Gas:** Faster acting than Chlorine but with similar effects. Could kill within 2 days.**Mustard Gas:** Odourless gas, worked in 12 hours. Caused blisters, burn the skin easily.  |
| **Arras:** Battle of Arras - 1917. Before the battle, Allied soldiers dug tunnels below Arras. Tunnels led to rooms and included an underground hospital. | **Cambrai:** Battle of Cambrai -1917. 450 tanks used to advance on the German position, however, plan did not work because there was not enough infantry to support.  |
| **Impact of terrain on helping the wounded:** Difficult to move around, + night, communication was difficult, collecting wounded from No Man’s Land was dangerous. Stretcher bearers found it difficult to move around corners and transport of the wounded was difficult because of this.  |
| **Key words** | **Key words** |
| **No Man’s Land:** Land between Allied and German trenches in WW1.**Trenches:** Long, narrow ditches dug during the First World War.**Ypres Salient:** Area around Ypres where many battles took place in WW1.  | Image result for shrapnel**Gangrene:** When a body decomposes due to a loss of bloody supply.**Shrapnel:** A hollow shell filled with steel balls or lead, with gunpowder and a time fuse.  |
| **Helping the wounded on the Western Front** | **The impact of the Western Front on Medicine** |
| **Evacuation route:** Survival depended on speed of treatment. Care improved as war progressed. 1914 – 0 motor ambulances but by 1915, it was 250. Ambulance trains were introduced, as well as, ambulance barges used along River Somme. **Stretcher bearers:** Collect wounded, 16 in each battalion + 4 for each stretcher.**Regimental Aid Post:** Always close to the front line and staffed by a Medical officer selected those who were lightly wounded/needed more attention. **Field Ambulance and Dressing Station:** Emergency treatment for wounded.**Casualty Clearing Station:** Large, well equipped station, 10 miles from trenches.**Base Hospitals:** X-ray, operating theatre and areas to deal with gas poisoning. **Underground hospital at Arras:** Running water, 700 beds and operating theatre.**RAMC:** Involved medical officers and learnt about wounds never seen before.**FANY:** Volunteer nurses, who helped the wounded and also drove ambulances. | **The Thomas Splint:** Stopped joints moving and increased survival rates from 20 to 82%. Reduced infection from compound fractures. **X-rays:** Developed in 1895, X-rays used to diagnose issues before operations. But there were some problems: X-ray could not detect all problems, were fragile and overheat. **Mobile X-rays:** 6 operated on the front line, used to locate shrapnel and bullet wounds. Transported around in a truck and enabled soldiers to be treated more quickly.**Blood Transfusions:** Blood loss = major problem. Blood transfusions used at Base Hospitals by a syringe and tube to transfer blood from patient to donor. Extended to CCS from 1917.**Blood bank at Cambrai:** Adding Sodium Citrate allowed blood to be stored for longer. Blood was stored in glass bottles at a blood bank and used to treat wounded soldiers.**Brain surgery:** Magnets used to remove metal fragments from the brain. Local anaesthetic.**Plastic surgery:** Harold Gillies developed new techniques, skin drafts developed for grafts.  |
| **Key words** | **Key words** |
| Image result for triage**FANY:** First Aid Nursing Yeomanry. Founded in 1907 by a soldier who hoped they would be a nursing cavalry to help the wounded in battle. **RAMC:** Royal Army Medical Corps. This organisation organised and provided medical care. It consisted of all ranks from doctors to ambulance drivers and stretcher bearers.**Triage:** A system of splitting the wounded into groups according to who needed the most urgent attention.  | **Compound Fracture:** Broken bones pierces the skin + increases risk of infection in wound.**Debridement:** Cutting away of dead and infected tissue from around the wound.**Gas Gangrene:** Infection that produced gas in gangrenous wounds. **Mobile X-ray unit:** Portable X-ray unit that could be moved around the Western Front.**Radiology department:** Hospital department where X-rays are carried out. **Blood transfusions:** Blood taken from a healthy person and given to another person.**General anaesthetic:** Putting a patient to sleep during an operation.**Local anaesthetic:** Area being operated on is numbed to prevent pain + patient awake.  |

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| Who discovered that Penicillin kills bacteria – and when? | Which **two** scientists were responsible for the discovery of DNA? | When did Pasteur announce his Germ Theory? | Put in order: *Aid Post Hospital*, *Clearing Station* and *Dressing Station*. |
| What were the Four Humours? | What was so important about the 1875 Public Health Act? (Mention two details to support your answer.) | What is shrapnel? | What did John Snow do to stop Cholera spreading in Soho, London, 1854? |
| Name **two** types of gas used as weapons. | Give **two** methods used to reduce deaths from Lung Cancer. | Give **two** ways people used to keep towns clean and healthy in Medieval England. | Give **two** reasons why changes were taking place in medicine by 1700. |
| **List** three ideas people had about the cause of disease in Medieval England. | Name **three** different kinds of medieval healers. | List **three** ways in which governments have tried to improve health since 1900. | List **three** kinds of treatments used in the Renaissance England. |
| Which **three** factors were most important in advancing in medicine in Modern Britain? | Why was Thomas Sydenham’s work important? | Why were there so many infected wounds on the Western Front? | Which **three** factors were most important in inhibiting change in medicine in Medieval England? |