

Disease	Causes	Reduced & prevention	Note
Cardiovascular	<p>Major modifiable risk factors: - High blood pressure - Abnormal blood lipids - Tobacco use - Physical inactivity - Obesity - Unhealthy diet (salt) -Diabetes</p> <p>Other modifiable risk factors: - Low socioeconomic status - Mental ill health (depression) - Psychosocial stress - Heavy alcohol use - Use of certain medication - Lipoprotein(a)</p> <p>Non-modifiable risk factors: - Age - Heredity or family history - Gender - Ethnicity or race</p> <p>“Novel” risk factors: - Excess homocysteine in blood - Inflammatory markers (Creactive protein) - Abnormal blood coagulation (elevated blood levels of fibrinogen)</p>	<p>population-wide interventions</p> <ul style="list-style-type: none"> o comprehensive tobacco control policies o taxation to reduce the intake of foods that are high in fat, sugar and salt o building walking and cycle paths to increase physical activity strategies to reduce harmful use of alcohol o providing healthy school meals to children. <p>with established disease including diabetes, treatment with the following medications are necessary:</p> <ul style="list-style-type: none"> o aspirin o beta-blockers o angiotensin-converting enzyme inhibitors o statins 	<ul style="list-style-type: none"> o coronary heart disease – disease of the blood vessels supplying the heart muscle; o cerebrovascular disease – disease of the blood vessels supplying the brain; o peripheral arterial disease – disease of blood vessels supplying the arms and legs; o rheumatic heart disease – damage to the heart muscle and heart valves from rheumatic fever, caused by streptococcal bacteria; o congenital heart disease – malformations of heart structure existing at birth; o deep vein thrombosis and pulmonary embolism – blood clots in the leg veins, which can dislodge and move to the heart and lungs.
Diabetes	<p>Major modifiable Risk Factors: - Unhealthy diets - Physical Inactivity -Obesity or Overweight - High Blood Pressure - High Cholesterol</p> <p>Other Modifiable Risk Factors: - Low socioeconomic status - Heavy alcohol use - Psychological stress - High consumption of sugar-sweetened beverages - Low consumption of fibers</p> <p>Non-modifiable Risk Factors: - Increased age - Family history/genetics -Race - Distribution of fat</p> <p>Other Risk Factors: - Low birth weight - Presence of autoantibodies</p>	<p><u>Healthy diet, regular physical activity, maintaining a normal body weight and avoiding tobacco use</u> can prevent or delay the onset of type 2 diabetes</p>	<p>☒ There are 4 types: Type 1, Type 2, Gestational, and Pre-Diabetes (Impaired Glucose Tolerance).</p> <p>☒ Type 2 is caused by modifiable risk factors and is the most common worldwide</p>

Communicable Diseases

Disease	Cause	Symptoms	Prevention	Treatment	Note
Cholera	<p>caused by ingestion of food or water contaminated with the bacterium <i>Vibrio cholera</i>.</p> <p>Transmissio: inadequate access to clean water and sanitation facilities</p>	<p>severe acute watery diarrhoea* incubation period: 12h -5 day.</p> <p>*bacteria are present in their faeces for 1-10 days after infection</p> <p>*Among people who develop symptoms, the majority have mild or moderate symptoms, while a minority develop acute watery diarrhoea with severe dehydration, nausea and vomiting, . This can lead to death if left untreated.</p> <p>*Diarrhoea: pale, milky appearance that resembles water in which rice has been rinsed, also known as rice-water stool.</p>	<p>A combination of surveillance, water, sanitation and hygiene, social mobilisation treatment, and oral cholera vaccines are used.</p> <p>3 WHO pre-qualified oral cholera vaccines: Dukoral®, Shanchol™, and Euvichol® . All 3 vaccines require 2 doses for full protection</p> <p>treatment, the case fatality rate should remain below 1%</p>	<p>oral rehydration solution (ORS) standard sachet is dissolved in 1 litre (L) of clean water. Adult patients may require up to 6 L of ORS to treat moderate dehydration on the first day Severely dehydrated patients are at risk of shock and require the rapid <u>administration of intravenous fluids</u>.</p> <p>These patients are also given appropriate <u>antibiotics</u> to diminish the duration of diarrhoea, reduce the volume of rehydration fluids needed, and shorten the amount and duration of V. cholera excretion in their stool.</p> <p>Mass administration of antibiotics is not recommended increasing antimicrobial resistance.</p>	<p>an acute diarrhoeal infection that can kill within hours if left untreated.</p> <ul style="list-style-type: none"> • Cholera can be endemic or epidemic . <p>*risk areas include peri-urban slums, camps for internally displaced persons or refugees overcrowded camps where minimum requirements of clean water and sanitation have not been met.</p> <p>* Amidst the devastation of war in Yemen</p>

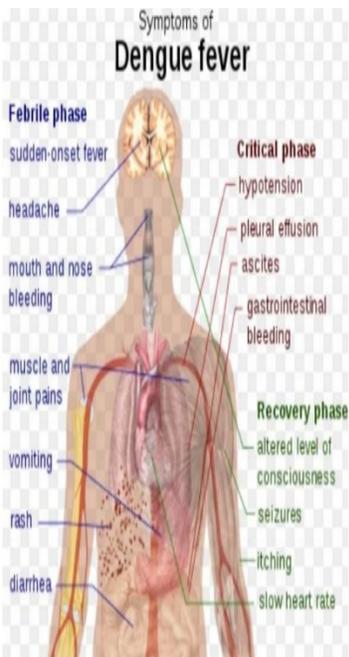
Dengue fever

dengue virus (DENV). There are four DENV serotypes

high fever (40°C/104°F) severe headache, pain behind the eyes, muscle and joint pains, nausea, vomiting, swollen glands or rash. Symptoms usually last for 2–7 days, after an incubation period:4-10 days after bit

Severe dengue is a potentially deadly complication due to plasma leaking, fluid accumulation, respiratory distress, severe bleeding, or organ impairment.

Warning signs occur 3–7 days after the first symptoms in conjunction with a decrease in temperature (below 38°C/100°F) and include: severe abdominal pain, persistent vomiting, rapid breathing, bleeding gums, fatigue, restlessness and blood in vomit



Prevention of mosquito breeding:

- Preventing mosquitoes from accessing egg-laying habitats
- Disposing of solid waste properly and removing
- Covering, emptying and cleaning of domestic water storage containers on a weekly basis;
- Applying appropriate insecticides to water storage outdoor containers

Personal protection from mosquito bites:

- Using of personal household protection measure
- Wearing clothing that minimises skin exposure to mosquitoes is advised.

Community engagement:

- Educating the community on the risks of mosquito-borne diseases;
- Engaging with the community to improve participation and mobilization for sustained vector control

Reactive vector control: • Emergency vector control measures such as applying insecticides as space spraying during outbreaks

Active mosquito and virus surveillance:

- Active monitoring and surveillance of vector abundance and species composition should be carried out to determine effectiveness of control interventions;
- Prospectively monitor prevalence of virus in the mosquito population, with active screening of sentinel mosquito collections.

no specific treatment for dengue/ severe dengue Fever reducers and pain killers can be taken to control the symptoms of muscle aches and pains, and fever

(acetaminophen or paracetamol)

NSAIDs: ibuprofen and aspirin should be avoided

medical care decreasing mortality rates from more than 20% to less than 1%

Maintenance of the patient's body fluid volume is critical to severe dengue care. Patients with dengue should seek medical advice upon the appearance of warning signs

mosquito-borne viral infection transmitted by Aedes mosquitoes This mosquito also transmits chikungunya, yellow fever and Zika

infection. Infected humans are the main carriers and multipliers of the virus.

Vaccine use in people 9-45 years of age living in endemic has grown dramatically in recent decades. About half of the world's population is now at risk. Dengue is found in tropical and sub-tropical climates worldwide, mostly in urban and semi-urban areas

Bit during the day

Disease	Cause transmission	Symptoms	Prevention	Treatment	Note
Malaria	parasites that are transmitted to people through the bites of infected female Anopheles mosquito	<p>acute febrile illness: symptoms usually appear 10–15 days after the infective mosquito bite. The first symptoms – fever, headache, and chills. If not treated within 24 hours, P. falciparum malaria can progress to severe illness, often leading to death</p> <p>severe malaria: <i>in children</i> severe anaemia, respiratory distress in relation to metabolic acidosis, or cerebral malaria</p> <p><i>In adults</i>, multi-organ involvement is also frequent</p> <p><i>In endemic area</i> people may develop partial immunity, allowing asymptomatic infections to occur</p>		<p>particularly for P. falciparum malaria, is artemisinin-based combination therapy (ACT). Resistance to antimalarial medicines is a recurring problem.</p> <p>*Treatment, solely on the basis of symptoms should only be considered when a parasitological diagnosis is not possible.</p>	<p>400 different species of Anopheles mosquito; around 30 are malaria vectors</p> <p>bite between dusk and dawn (Par2 page 2 some Ratios)</p> <p>*all cases of suspected malaria be confirmed using parasite-based diagnostic testing (either microscopy or rapid diagnostic test) before administering treatment.</p>
Small pox	transmitted from person to person by infected <u>aerosols and air droplets</u> spread through face-to-face contact with an infected person after fever has begun. Also by <u>contaminate d clothes and bedding</u>	<p>*fever is present for 2 to 4 days before the rash begins,</p> <p>* By day 5: All the pocks rash are in the same stage of development on any given part of the body and develop slowly lesions are uniformly larger, between 5 and 10 mm. pustules are firm and deeply embedded in the skin. By day 7: Scabs over the smallpox lesions have not yet formed.</p> <p>By day 10: scabs are just beginning to form</p> <p>*pocks usually occur on the arms and legs than on the body commonly found on the palms and soles</p>			<p>was eradicated by a collaborative global vaccination programme The last known natural case was in Somalia in 1977</p>

		death following smallpox is not uncommon,			
Chickenpox		<p>*fever and rash develop at the same time</p> <p>*rash develops more rapidly, and vesicles, pustules, and scabs may be seen at the same time. By day 5: Patient with chickenpox shows several different stages of rash. There are papules, vesicles and pustules present. lesions are small, between 1 and 5 mm, the lesions of chickenpox are much more superficial. By day 7: most of the chickenpox lesions have already formed scabs and some scabs, in fact, have already separated. On day 10: of the rash, most of the chickenpox scabs have fallen off, scabs may form as early as day 3 or 4 of rash and normally fall off by day 14. more pocks occur on the body very few or no lesions on the palms and soles.</p> <p>*death is very rare.</p>			By day 5, however, it is perfectly clear that the patients have different diseases(chickenpox or smallpox)
Polio, or poliomyelitis	caused by the poliovirus. spreads from person to person contact with the feces of an infected person and, though less common, through droplets from a	<p>(about 72 out of 100) will not have any visible symptoms. Flu-like symptoms that may include:</p> <ul style="list-style-type: none"> o Sore throat o Fever o Tiredness o Nausea o Headache o Stomach pain <p>• These symptoms usually last 2 to 5 days then go away on their own. Serious symptoms that affect the brain and</p>	Polio vaccine protects children. There are two types of vaccine: <u>inactivated poliovirus vaccine (IPV)</u> and <u>oral poliovirus vaccine (OPV)</u> _prevented through the systematic administration of vitamin A during polio immunization activities.	There is no cure for polio Treatments for polio focus on limiting and alleviating symptoms. Heat and physical therapy can be used to stimulate the muscles and antispasmodic drugs are used to relax the	virus lives in an infected person's throat and intestines enter through the mouth spread the virus to others immediately before and about 1 to 2 weeks after symptoms appear who don't have

	sneeze or cough	spinal cord: o Paraesthesia (feeling of pins and needles in the legs) o Meningitis (infection of the covering of the spinal cord and/or brain) o Paralysis (can't move parts of the body) or weakness in the arms, legs, or both, it can lead to permanent disability and death post-polio syndrome children who seem to fully recover can develop new muscle pain, weakness, or paralysis as adults, 15 to 40 years later.		effected muscles. This can improve mobility but does not reverse permanent polio paralysis	symptoms can still pass the virus to others and make them sick
Disease	Cause transmission	Symptoms	Treatment	Risk factor	Note
Tuberculosis	caused by bacteria (Mycobacterium tuberculosis) TB bacteria are spread through the air from one person to another. throat coughs, sneezes, or sprints	Latent TB: do not feel sick, do not have any Symptoms and cannot transmit the disease. (pulmonary TB): * a bad cough that lasts 3 weeks or longer * pain in the chest * coughing up blood or sputum (phlegm from deep inside the lungs) *weakness or fatigue *weight loss, lack of appetite * Chills, fever, night sweats	TB is a treatable and curable disease. Standard 6 month course of 4 antimicrobial drugs that are provided with supervision and support to the patient <u>isoniazid and rifampicin</u> , the 2 most powerful, first-line anti-TB drugs. Some bacteria get resistance second-line treatment options are limited and require extensive chemotherapy (up to 2 years of treatment) with medicines that are expensive and toxic.		Part3 page 7 Without such support, treatment adherence can be difficult and the disease can spread. HIV and TB form a lethal combination,

Disease	Cause transmission	Stages	Signs & symptoms	Diagnosis	Note	Treatment
HIV/AIDS	via the exchange of a variety of body fluids from infected individuals, such as blood, breast milk, semen and vaginal secretions.	Stage 1: Acute HIV infection Within 2 to 4 weeks after infection flu-like illness, appear which may last for a few weeks in this stage	The first few weeks after initial infection, individuals may experience no symptoms or an influenza-like	o know whether someone has acute infection, either a fourth-generation antibody/antigen test or nucleic	once a person get HIV, s/he has it for life HIV attacks the body's immune system, specifically the	No effective cure currently exists, but with proper medical care, HIV can be controlled medicine used

<p>Risk factor contracting HIV</p> <ul style="list-style-type: none"> ● having anal or vaginal sex; ● having another sexually transmitted infection such as syphilis, herpes, chlamydia, gonorrhoea, and bacterial vaginosis; ● sharing contaminated needles, syringes and other injecting equipment and drug solutions when injecting drugs; ● receiving unsafe injections, blood transfusions, tissue transplantation, medical procedures that involve unsterile cutting or piercing; and ● experiencing accidental needle stick injuries, including among health workers 	<p>patients have a large amount of virus in their blood and are very contagious.</p> <p>Stage 2: Clinical latency called asymptomatic HIV infection or chronic HIV infection. HIV is still active but reproduces at very low levels this stage may last for decades & can transmit the disease having very low level of virus in blood less likely to transmit the disease</p> <p>Stage 3: Acquired Immunodeficiency Syndrome (AIDS): the most severe phase of HIV infection. have a high viral load and be very infectious.</p> <p>Common symptoms of AIDS include chills, fever, sweats, swollen lymph glands, weakness, and weight loss.</p>	<p>illness including fever, headache, rash or sore throat.</p> <p>As the infection progressively weakens the immune system swollen lymph nodes, weight loss, fever, diarrhoea and cough Without treatment, they could also develop severe illnesses such as tuberculosis, Cryptococci meningitis, and cancers such as lymphomas and Kaposi's sarcoma, among others</p>	<p>acid (NAT) test is necessary.</p> <ul style="list-style-type: none"> ● diagnosed with AIDS when their CD4 cell count drops below 200 cells/mm or if they develop certain opportunistic illnesses <p>Serological tests, such as RDTs or enzyme immunoassays (EIAs) detect the presence or absence of antibodies to HIV-1/2 and/or HIV p24 antigen</p>	<p>CD4 cells (T cells) Untreated, HIV reduces the number of CD4 cells in the body, and increase the risk of infection diseases & cancer</p> <p>* develop antibodies to HIV-1/2 within 28 days</p> <p>Part 3 page 6 another Ratios</p>	<p>to treat HIV is called antiretroviral therapy or ART dramatically prolong the lives of many people infected with HIV and greatly lower their chance of infecting others.</p>
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Disease	Cause transmission	Symptoms	Diagnosis	Treatment	Note
Ebola	Ebola virus disease known as Ebola	persist in immune-privileged sites in some	Laboratory findings include	as yet no proven treatment available	severe, often fatal illness in humans.

	<p>haemorrhagic fever transmitted to people from wild animals and spreads in the human population through human-to-human transmission spreads via direct contact (through broken skin or mucous membranes) with the blood, secretions, organs or other bodily fluids of infected people, and with surfaces and materials (e.g. bedding, clothing) contaminated with these fluids. Also can be transmitted through dead body</p>	<p>people who have recovered (in testicles, the inside of the eye, and the central nervous system) In women who have been infected while pregnant, the virus persists in the placenta, amniotic fluid and fetus. In women who have been infected while breastfeeding, the virus may persist in breast milk. incubation period, is 2 to 21 days. First symptoms are the sudden onset of fever fatigue, muscle pain, headache and sore throat. This is followed by vomiting, diarrhoea, rash, symptoms of impaired kidney and liver function, and in some cases, both internal and external bleeding (e.g. oozing from the gums, blood in the stools).</p>	<p>low white blood cell and platelet counts and elevated liver enzymes .</p> <ul style="list-style-type: none"> o antibody-capture enzyme-linked immunosorbent assay (ELISA) o antigen-capture detection tests o serum neutralization test o reverse transcriptase polymerase chain reaction (RT-PCR) assay o electron microscopy o virus isolation by cell culture. 	<p>for EVD supportive care-rehydration with oral or intravenous fluids- and treatment of specific symptoms, improves survival Providing fluids and electrolytes (body salts) through infusion into the vein (intravenously).</p> <ul style="list-style-type: none"> o Offering oxygen therapy to maintain oxygen status. o Using medication to support blood pressure, reduce vomiting and diarrhea and to manage fever and pain. o Treating other infections, if they occur 	<p>The first EVD outbreaks occurred in remote villages in Central Africa, near tropical rainforests. People remain infectious as long as their blood contains the virus some body fluids may test positive on reverse transcriptase polymerase chain reaction (RT-PCR) for Ebola virus for longer than 9 months Humans are not infectious until they develop symptoms.</p>
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Done by : Batool Al - Masalha