CATEGORY 1 NOTIFIABLE MEDICAL CONDITIONS

N/A: not applicable

* Viral haemorrhagic fever diseases: Ebola or Marburg viruses, Lassa virus, Lujo virus, novel or new world arenaviruses, Crimean-Congo haemorrhagic fever

Conditions requiring immediate reporting by the most rapid means available upon diagnosis (even before the case is laboratory confirmed) followed by a written or electronic notification to the Department of Health within 24 hours of diagnosis by health care providers as well as private and public health laboratories

Disease	Short description	Incubation period	CDW/lab alert case definition	Suspected case	Probable case	Confirmed case
1. Acute flaccid paralysis	Viral infection transmitted through the oro-fecal route. Causes paralysis in about 1/100 infected individuals.	7-21 days	Polio test request on stool sample or CSF	Any child under 15 years of age with AFP (acute flaccid paralysis, or sudden onset of hypotonic weakness, including GuillianBarre syndrome) or any person of any age with paralytic illness if polio is suspected	Any child under 15 years of age with AFP (acute flaccid paralysis, or sudden onset of hypotonic weakness, including GuillianBarre syndrome) or any person of any age with paralytic illness if polio is suspected	See polio definition
2. Acute rheumatic fever				A primary episode of RF is two major, or 1 major+2 minor manifestations plus evidence of a preceeding group A streptococcal infection. Major manifestations include carditis; polyarthritis; chorea; erythema marginatum; subcutaneous nodules.		No laboratory diagnosis No immediate public health action

				Minor manifestations include clinical signs (fever, polyarthragia), laboratory signs (increased ESR or white cell count). Supporting evidence of streptococcal infection within the last 45 days are prolonged PP-R interval on ECG, elevated or rising antistreptolysin-O or other antistreptococcal antibody; a positive throat culture; a rapid antigen test for group A strep, recent scarlet fever.		
3. Anthrax	"Anthrax is an acute infectious disease caused by the spore-forming bacterium Bacillus anthracis. The disease most commonly occurs in wild and domestic animals such as cattle, sheep, goats, camels, antelope and other herbivores. Humans can also get anthrax when they are exposed to infected animals or tissue from these animals. Persons who may have been exposed to anthrax are not	2-7 days	B. anthracis isolated from any clinical sample. Gram+ve Bacillus (thick rods with truncated ends, with possible endospore) detected by any test on any specimen type	A person with either 1. Skin lesion evolving over 1-6 days from a papular through a vesicular stage, to a depressed black eschar invariably accompanied by oedema that may be mild to extensive with fever, malaise and lymphadenopathy OR 2. Nausea, vomiting and anorexia followed by fever, vomiting of blood, bloody diarrhoeaOR 3.	A probable case is a suspected case with laboratory Gram+ve Bacillus culture (and possible presence of endospores).	A confirmed case is a person with laboratory evidence of infection with Bacillus anthracis by (Culture isolation of Bacillus anthracis -like organisms or spores from any clinical specimen and PCR confirmation of cultured isolate).

	contagious, so quarantine is not appropriate Symptoms vary, depending on how the disease was contracted. Most (about 95 %) anthrax infections occur when the bacterium enters through skin lesions (cuts or abrasions) such as when handling contaminated wool, hides, leather or hair products (especially goat hair) of infected animals. Skin infection begins as a swollen itchy area that resembles an insect bite but within one to two days develops into a vesicle and then a painless ulcer, usually 1 to 3 cm in diameter, with a characteristic black necrotic (dying) area in the centre. Lymph glands in the adjacent area may be swollen. Deaths rarely occur when appropriate antimicrobial therapy is applied. About 20 % of untreated cases of cutaneous anthrax will result in death. Other forms are gastrointestinal anthrax: This form of anthrax may follow the consumption of contaminated meat and is characterised by an acute inflammation of the gastointestinal tract. Initial			Rapid onset of hypoxia, shortness of breath and high temperature, with radiological evidence of mediastinal widening or pleural effusion OR 4. Acute onset of high fever, convulsions, loss of consciousness and meningeal signs and symptoms AND having relevant epidemiological exposure (e.g. Occupational contact with ruminants that have died recently; or animal products e.g. skins; or contact with anthrax spores contaminated soil, in drugs or ingestion of undercooked, contaminated or raw meat).		

	signs of nausea, loss of appetite, vomiting and fever are followed by abdominal pain, bleeding when vomiting and severe diarrhoea. Intestinal anthrax results in death in 25 to 60 % of cases, unless treated intensively and early; And inhalation anthrax: Initial symptoms may resemble a common cold. After several days, the symptoms may develop into severe breathing problems and shock. Inhalation anthrax is usually fatal unless treated intensively and early by means of antibiotics. Anthrax is found throughout South Africa but more frequently in the Northern Cape and northern Kruger National Park (Limpopo).					
4. Botulism	Botulism is a rare but serious paralytic illness caused by a nerve toxin that is produced by the bacterium Clostridium botulinum and sometimes by strains of Clostridium butyricum and Clostridium baratii. Foodborne botulism is caused by eating foods that contain the botulinum	18 to 36 hours after eating a contaminated food, but as early as 6 hours or as late as 10 days.	Clostridium botulinum or gram+ve Bacillus (clubshaped) detected by any test on any specimen type; OR toxin+ve result by any test on any specimen type	A person with double or blurred vision, muscle and bulbar weakness. Symmetric paralysis may progress rapidly, death AND having relevant epidemiological exposure (Ingestion of foods contaminated with Botulinum toxin; or	A probable case is either a suspected case with laboratory toxin+ve assay in mice and/or Gram+ve Bacillus (clubshaped) anaerobic culture; OR a person with clinically compatible	A confirmed case is a person with laboratory evidence of Clostridium botulinum infection by (a. Culture isolation of Clostridium botulinum; OR b. Detection of Clostridium botulinum toxin in blood or faeces or patient's food via Mouse toxicity and neutralization assay).

	toxin. Botulism is suspected in humans when there is a history of ingestion of suspect food OR of a fresh, contaminated wound in the 2 weeks before onset of symptoms. The most frequent source is home-canned foods, prepared in an unsafe manner.Wound botulism is caused by toxin produced from a wound infected with Clostridium botulinum. Injection drug users are at increased risk for wound botulism. Infant botulism is caused by consuming the spores of the botulinum bacteria, which then grow in the intestines and release toxin.The classic symptoms of adult botulism are of the muscle paralysis caused by the bacterial toxin and include: double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing,dry mouth, and muscle weakness. If untreated, these symptoms may progress to cause paralysis of the respiratory muscles, arms, legs, and trunk. The disease can be fatal in 5 to 10% of cases.			Clostridium botulinum contaminated wound with in situ toxin production).	illness that ate the same food as a confirmed case.	

5. Cholera				A suspected case (WHO definition, cholera book, 2004) may be considered · in an area where the disease is not known to be present, a patient aged 5 years or more develops severe dehydration or dies from acute watery diarrhoea; · in an area where there is a cholera epidemic, a patient aged 5 years or more develops acute watery diarrhoea, with or without vomiting.	A suspected case with an epidemiologic link to a confirmed cholera case	A case of cholera is confirmed when Vibrio cholerae O1 or O139 is isolated from any patient with diarrhoea.
6. Food borne illness outbreak				An incident in which two or more persons experience a similar illness and are epidemiologically linked		No laboratory confirmation
7. Malaria	Systemic febrile infection caused by 5 species of mosquito-transmitted protozoal parasites, generally acquired in known risk areas, but occasionally associated with blood transfusions, needle injuries, and imported mosquitoes in non-endemic areas.	Usually 10 – 14 days; range 7-21 days, depending on species.	Positive malaria test (blood smear, rapid antigen, PCR) for any of the species: *Plasmodium falciparum, P. vivax, P. ovale, P malariae, P. knowlesi.*	Acute febrile flu-like illness (AFFI) in a person with a history of exposure in a known malaria-endemic area; or in a non-endemic area, AFFI with a history of blood transfusion or injections, or AFFI with no other cause for illness and compatible non-	Clinically suspected case in a recognized malaria outbreak situation.	Positive malaria test (blood smear, rapid antigen, PCR) for any of the species: *P. falciparum, P. vivax, P. ovale, P. malariae, P. knowlesi.*

				specific laboratory findings.		
8. Measles	Highly infectious viral disease transmitted by the respiratory route. Infectivity is greatest in the 3 days before the onset of rash, and 75%–90% of susceptible individuals develop the disease.	The incubation period is 8–12 days.	<u>Low alert:</u> Measles test request on any specimen type <u>High alert:</u> Positive measlesIgM antibodies OR the presence of a positive measles PCR result from any specimen type	Any person in whom a clinician suspects measles infection OR any person with fever and maculopapular rash (i.e. non-vesicular) and cough, coryza (i.e. runny nose) or conjunctivitis (i.e. red eyes).	N/A	• Compatible measles case (not epi linked, no blood specimen) • Confirmed measles cases (IgM+ve or PCR+ve or epidemiologically linked) • Discarded (IgM-ve or vaccine associated) • Denotified
9. Meningococcal disease	Meningococcal disease, caused by *Neisseria meningitidis*, can present as meningitis, septicaemia, respiratory or focal infections. Spread through droplets or intimate contact with nasopharyngeal secretions. Mortality rate is high if not treated and chemoprophylaxis is crucial for contacts. Asymptomatic carriage occurs.	3 – 5 days	Laboratory-confirmed by growth (culture Organism code = *N. meningitidis*) or detection (by Grams' stain Test code = Gram-negative intracellular diplococci/cocci, or antigen detection Test code = *N. meningitidis* antigen detection A or B or ACYW or by PCR positive) detected in any specimen. All ages.	See probable case definition.	Clinical diagnosis of meningitis, septicaemia or other invasive disease (e.g. orbital cellulitis, septic arthritis)where the public health physician, in consultation with the physician and microbiologist, considers that meningococcal disease is the most likely diagnosis. May progress rapidly to purpurafulminans, shock, and death.	Isolation of *N. meningitidis* from a normally sterile site specimen (e.g., blood; cerebrospinal, pericardial or synovial fluid), or a positive Gram stain and latex result, or a positive PCR result. ***** Although not meeting the definition of a confirmed case, meningococcal conjunctivitisis considered an indication for public health action because of the high immediaterisk of invasive disease.
10. Plague	Plague is a disease that affects humans and other mammals. It is caused by the bacterium, Yersinia pestis. Humans usually get plague after exposure to saliva or	1 – 6 days (bubonic), 12-48 hours (pneumonic).	Yersinia pestis isolated from any clinical sample. OR Gram-ve or bi-polar-	A person with fever, chills, headache, malaise, prostration, and leukocytosis that manifests in one or more of the following principal	A probable case is either a suspected case with laboratory suggestive evidence of Yersinia pestis infection by (a. If	A confirmed case is a person with laboratory detection and identification of Yersinia pestis infection by (a. If an organism cultured from the affected tissue is lysed by Yersinia pestis-specific

	feces of fleas that are carrying the plague bacterium or by handling an animal infected with plague. Pneumonic plague is transmissible from human-to-human via aerosolised droplets and is the most deadly form (90 - 95% CFR) . Bubonic plague is the most common form of plague. The key feature of bubonic plague is a swollen, painful lymph node, usually in the groin, armpit or neck. Other symptoms include fever, chills, headache, and extreme exhaustion. Antibiotics are effective in treating plague. If not treated early, the bacteria can spread to other parts of the body and cause septicemic or pneumonic plague and cause death (80% CFR). Plague epidemics have occurred in Africa, Asia, and South America but since the 1990s, most human cases have occurred in Africa. The 3 most endemic countries are Madagascar, the Democratic Republic of Congo and Peru. The last human cases of plague in South Africa were in 1982.		staining coccobacillus detected by any test on any specimen type	clinical forms: a. regional lymphadenitis in the groin, armpit or neck, b. septicemia without an evident bubo, c. pneumonia.	Gram-ve or bipolar-staining coccobacilli are seen on a smear taken from affected tissue (e.g. a bubo, or blood or a tracheal aspirate); OR b. Smear or tissue material is positive for the presence of Yersinia pestis F1 antigen by immunofluorescence or by ELISA or by other validated antigen detection system e.g. rapid dipstick assay; AND/OR a single serum specimen is positive for anti-F1 antibody by ELISA; OR a person with clinically compatible illness with epidemiological link to a confirmed case.	bacteriophage or verified by automated system (VITEK, Maldi-Tof, Microscan); OR b.IgGseroconversion or ≥4-fold rise in titre of anti-F1 antibody level over 2 weeks)

11. Poliomyelitis			Laboratory report of wildtype polio or vaccine derived polio virus (VDPV) or Sabin polio virus from stool sample or CSF	Any child under 15 years of age with AFP (acute flaccid paralysis, or sudden onset of hypotonic weakness, including GuillianBarre syndrome) or any person of any age with paralytic illness if polio is suspected	N/A	• Confirmed wild type polio • Confirmed vaccine derived polio • Confirmed vaccine associated polio • Compatible case • Discarded • Denotified
12. Rabies (human)	Rabies virus causes acute infection of the central nervous system. There is a wide variability in the time it takes for symptoms to appear following exposure to saliva of an infected animal (from about two weeks to several years, 30 days on average) and treatment with post-exposure prophylaxis comprising rabies immune globulin and/or vaccine can prevent the illness. The indication for post-exposure vaccination with or without rabies immune globulin is based on the animal a person was exposed to and the type of exposure. Dogs, mongoose, cats, jackal, cattle and goats are the commonest animal sources for human rabies in South Africa. Levels of exposures are touching or feeding animals or licking intact skin;	12 days - 6 months	Rabies virus or lyssavirus detected by any test on any specimen type *Exclude IgG serology	A person with one or more of the following signs and symptoms: encephalitis, myelitis (inflammation of the spinal cord), difficulty in swallowing, hydrophobia, anxiety, agitation, paresthesias or pain at the wound site, ascending flaccid paralysis and progresses to coma or death within 10 days after the first symptom.	A probable case is a suspected case AND having relevant epidemiological exposure (contact with a suspected rabid animal).	A confirmed case is a person with laboratory evidence of rabies infection by detection of (a. Rabies virus nucleic acid by RT PCR on saliva, skin biopsy or CSF or anti-rabies antibodies in CSF (ante-mortem); OR b. Rabies virus antigen in brain tissue by FAT or rabies virus nucleic acid in skin biopsy (post mortem)).

	nibbling of uncovered skin or superficial scratch without bleeding; bites or scratches penetrating skin or bat bites or scratches or licking of mucous areas or broken skin or abrasions. A person who had close contact (usually a bite or scratch) with a rabies-susceptible animal in (or originating from) a rabies-infected area) had a possible exposure; A person who had close contact with an animal displaying clinical signs consistent with rabies at time of the exposure, or within 10 days following exposure in a rabies-infected area had a probable exposure; Exposed: A person who has had close contact with a laboratory-confirmed rabid animal. If the animal is still alive and healthy 14 days after exposure, then risk of rabies exposure is very low. Rabies is endemic throughout South Africa, most reported from the Eastern portion. Once symptoms begin, rabies is almost invariably fatal. The first symptoms of rabies begin with flu-like illness, including headache, fever and fatigue and a feeling of					

	anxiety, cephalalgia. The excitation phase that follows is characterized by hyperesthesia, dilation of pupils and increased salivation. As the disease progresses swallowing dysfunction is seen in most patients and there may be spasms of the respiratory muscles and generalized convulsions. The illness progresses rapidly to paralysis, delirium, convulsions and death, usually within a week or two of the onset of illness.					
13. Respiratory disease caused by a novel respiratory pathogen**	Not available as pathogens may vary.	Not available as pathogens may vary.	Not available as pathogens may vary.	Clusters (e.g., 3 or more cases in 72 hours, or 5 or more cases in a 5-day period) of severe respiratory illness (hospitalised or warranting hospitalisation or ICU admission or death) with evidence of common exposure or epidemiologic link. Attention should be given to recent travel or exposure to animals implicated in zoonotic transmission of respiratory pathogens.	Not available as pathogens may vary.	Not available as pathogens may vary.
14. Rift valley fever (human)	Rift Valley fever is a viral disease affecting both	2-6 days	Rift Valley fever or Slenkdalkoors virus or	A person with acute onset of fever > 38°C	A probable case is a suspected case with	A confirmed case is a person with laboratory evidence of RVF virus

	domesticated ruminant animals and humans. Virus transmission is mosquito-borne amongst the animals (Culex and Aedes spp.) and occurs via zoonotic route to humans i.e. contact of blood or bodily secretions of infected livestock. There are vaccines available for animals but not for humans. Reducing risk for humans relies primarily on prevention of infection in animals.There is no antiviral treatment for RVF. Humans can experience a flu-like febrile illness, headache, nausea, myalgia, arthralgia, joint pain, neck stiffness, sensitivity to light, loss of appetite, vomiting; < 1% hemorrhagic and/or encephalitic form of disease, jaundice, neurological disease (1-4 weeks after disease onset) - intense headache, loss of memory, hallucinations, confusion, disorientation, vertigo, convulsions, lethargy, coma; hemorrhagic symptoms (2-4 days after disease onset) severe liver impairment, bleeding (from venepunture sites, petechia, purpura, ecchymoses,		bunyavirus detected by any test on any specimen type *Exclude IgG serology and HAI	with at least one of the following signs and symptoms: headache, nausea, myalgia, arthralgia, neck stiffness, sensitivity to light, loss of appetite, vomiting, diarrhoea, abdominal pain with sometimes either of severe clinical findings: 1. ALT, AST or γ-glutamyltranspeptidase level elevation (3 x), clinical jaundice, hepatitis; OR 2. features of encephalitis, such as confusion, disorientation, drowsiness, coma, neck stiffness, hemiparesis, paraparesis, or convulsions; OR 3. bleeding, into skin (ecchymosis, purpura, petechiae), vomiting of blood, blood in stool, or bleeding from rectum, nose, puncture sites or vagina, decreased platelets count; OR 4. retinitis, unexplained acute vision loss or blind spots (scotomas); OR 5. unexplicable sudden death with a history of fever, lethargy, diarrhea, abdominal pain, nausea,	laboratory IgM antibodies against RVF virus.	infection by (a.PCR positive and virus isolation from the patient's first (single) specimen; OR b.PCR positive and IgM positive result on patient's first (single) specimen; OR c. PCR positive on two separate specimens from the same patient collected at least one day apart; OR d. PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative but IgM/IgG positive result in patient's second specimen collected at least one day apart; OR e. Increase in IgM/IgGtitres between acute and convalescent specimens).

	gastrointestinal, from the nose, gums, menorrhagia); (disease onset-4 weeks) ocular disease (loss of acuity of central vision, sometimes scotomas, residual scarring of the retina or permanent uni-or bilateral blindness. Moderate leukopenia, later: leukocytosis, hemoconcentration if advanced stage, mild-to moderate thrombocytopenia, AST> ALT elevated, lactate level > 4 mmol/L (36 mg/dL), DIC not common, proteinuria.			vomiting, or headache in the preceding 2 weeks AND epidemiological evidence (a person belonging to a high risk category included the following: a) recent close contact with livestock and game animals in or from RVF-affected areas, including slaughtering and butchering (traditional or commercial), disposal of carcasses and fetuses, assisting with birthing or other animal husbandry activities that resulted in exposure to animal blood and body fluids, or veterinary procedures and necropsies; b) residing in an area where RVF is known to occur or has the potential to occur and recent mosquito bites; or c) consuming unpasteurized milk from RVF-affected areas).		
15. Smallpox	Smallpox is an acute contagious disease caused by the variola virus, a member of the orthopoxvirus family. It was one of the world's most devastating diseases known	7(12)-17 days	Pox virus detected by any test on any specimen type	"A person with acute onset of fever ≥38.3°C and malaise, and severe prostration with headache and backache occurring 2 to 4 days before rash onset AND	"A probable case is a suspected case with either laboratory evidence by (a. Detection of a poxvirus resembling variola virus by	A confirmed case is a person with laboratory evidence of smallpox virus infection by (a. Isolation of variola virus and PCR confirmation of cultured isolate; OR b. Detection of variola virus by PCR).

	to humanity. The last known natural case was in Somalia in 1977. It was declared eradicated in 1980 following a global immunization campaign led by the World Health Organization. Smallpox is transmitted from person to person via infective droplets during close contact with infected symptomatic people. Smallpox has two main forms: variola major and variola minor. The two forms showed similar lesions. The disease followed a milder course in variola minor, which had a case fatality rate of less than 1 per cent. The fatality rate of variola major was around 30%. In the past, smallpox was sometimes confused with chickenpox, a worldwide infection of children that is seldom lethal. Chickenpox can be distinguished from smallpox by its much more superficial lesions, their presence more on the trunk than on the face and extremities, and by the development of successive crops of lesions in the same area.			subsequent development of a maculopapular rash starting on the face and forearms, then spreading to the trunk and legs, and evolving within 48 hours to deep-seated, firm/hard and round well-circumscribed vesicles and later pustules, which may become umbilicated or confluent AND lesions that appear in the same stage of development (i.e. all are vesicles or all are pustules) on any given part of the body (e.g. the face or arm) AND no alternative diagnosis explaining the illness. "	electron microscopy; OR b. Isolation of variola virus pending confirmation; OR c. Detection of variola virus by nucleic acid testing pending confirmation); OR epidemiological linked to confirmed case). "	
16. Viral haemorrhagic fever diseases*						

Ebola	"Ebola is a hemorrhagic fever (EVD) caused by a filovirus of five distinct species. Bundibugyo, Sudan and Zaire viruses have been associated with large EVD outbreaks in Central and West Africa. An outbreak happens when Ebola is first introduced into the human population through close contact with the blood, secretions, organs or other bodily fluids of infected forest animals (e.g. non-human primates and other mammals, fruit bats). Secondary human-to-human then spreads in the community resulting from close contact with the blood, secretions, organs, or other bodily fluids of infected people. High risk exists for people when providing direct patient care or handling dead bodies (funerals). Transmission via infected semen can occur up to seven weeks after clinical recovery. Vaccines have been development and tried following the largest outbreak of Ebola in West Africa in 2014-2015. Generally, EVD is a severe febrile illness characterized	1-21 days	Ebola virus or filovirus detected by any test on any specimen	A person with sudden onset of fever > 38.5 with at least three of the following signs and symptoms:headaches, vomiting, anorexia, loss of appetite, diarrhoea, lethargy, stomach pain, myalgia, arthralgia, difficulty in swallowing, breathing difficulties, hiccups, bloody diarrhoea, bleeding from gums, bleeding into skin (purpura), bleeding into eyes and urine OR any sudden inexplicable death. AND having relevant epidemiological exposure (had contact with a suspected, probable or confirmed Ebola case or a dead or sick animal (bats, rodents, or primates) or residence in—or travel to—an endemic area within 21 days of illness onset or laboratory exposure or exposure to semen from a confirmed acute or convalescent case of EVD within the 10 weeks of that person's onset of symptoms).	Any deceased suspected case (where it has not been possible to collect specimens for laboratory confirmation) having an epidemiological link.	"A confirmed case is a person with laboratory evidence of Ebola virus infection by (a.PCR positive and virus isolation from the patient's first (single) specimen; OR b.PCR positive and IgM positive result on patient's first (single) specimen; OR c. PCR positive on two separate specimens from the same patient collected at least one day apart; OR d. PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative but IgM/IgG positive result in patient's second specimen collected at least one day apart; OR e. Increase in IgM/IgGtitres between acute and convalescent specimens) OR is a suspected case with laboratory suggestive evidence of Ebola virus infection by (IgM positive result on patient's first specimen). "

	by sudden onset of fever, and non-specific symptoms in the first 2 to 3 days e.g. severe headache, myalgia, intense weakness, sore throat, sometimes conjunctival injection, followed by 2 to 4 days period of deterioration with severe sore throat, chest, abdominal pain, maculopapular rash on trunk and shoulders, diarrhea, vomiting, impaired kidney and liver function and sometimes bleeding (petechiae, ecchymosis, from venepuncture sites, visceral hemorrhagic effusions), thrombocytopenia, leukopenia, elevated AST, ALT, abortion, hiccups, somnolence, delirium, shock, coma for fatal cases during 2-4 days period and occurs after 6 to 9 days, case-fatality rate is high at 25-90%. Filoviruses are endemic in Sub-Saharan Africa. South Africa has only had one encounter with the deadly Ebola virus, with two infections and one fatality.In 1996 a doctor who has been treating patients in Gabon travelled back to					

	Johannesburg South Africa.He fell ill but recovered, however the nurse who was treating him caught the virus and died.					
Marburg	Marburg is a haemorrhagic fever (MHF) caused by a filovirus. Originally, human infection results from prolonged exposure to mines or caves inhabited by Rousettus bats colonies. Transmission is mainly human-to-human, resulting from close contact with the blood, secretions, organs or other bodily fluids of infected persons. Burial ceremonies where mourners have direct contact with the body of the deceased can play a significant role in the transmission of Marburg. Transmission via infected semen can occur up to seven weeks after clinical recovery. No specific antiviral treatment or vaccine is available. Marburg and Ebola viruses are the two members of the Filoviridae family (filovirus). Though caused by different viruses, the two diseases are clinically similar. Case fatality ratio of MHF ranges from 24% up to 88%.	1-21 days	Marburg virus or filovirus detected by any test on any specimen	A person with sudden onset of fever > 38.5 with at least three of the following signs and symptoms:headaches, vomiting, anorexia, loss of appetite, diarrhoea, lethargy, stomach pain, myalgia, arthralgia, difficulty in swallowing, breathing difficulties, hiccups, bloody diarrhoea, bleeding from gums, bleeding into skin (purpura), bleeding into eyes and urine OR any sudden inexplicable death. AND having relevant epidemiological exposure (had contact with a suspected, probable or confirmed Marburg case or was in a mine or cave, residence in—or travel to—an endemic area within 9 days of illness onset, laboratory exposure, exposure to semen from a confirmed acute or convalescent case of	Any deceased suspected case (where it has not been possible to collect specimens for laboratory confirmation) having an epidemiological link.	"A confirmed case is a person with laboratory evidence of Marburg virus infection by (a.PCR positive and virus isolation from the patient's first (single) specimen; OR b.PCR positive and IgM positive result on patient's first (single) specimen; OR c. PCR positive on two separate specimens from the same patient collected at least one day apart; OR d. PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative but IgM/IgG positive result in patient's second specimen collected at least one day apart; OR e. Increase in IgM/IgGtitres between acute and convalescent specimens) OR is a suspected case with laboratory suggestive evidence of Marburg virus infection by (IgM positive result on patient's first specimen). "

	Outbreaks and sporadic cases have been reported Germany (from laboratory work with monkeys from Uganda), Serbia, Angola, Democratic Republic of the Congo, Kenya, South Africa (in a person with recent travel history to Zimbabwe) and Uganda. In 2008, two independent cases were reported in travelers who visited a cave inhabited by Rousettus bat colonies in Uganda.			Marburg within the 10 weeks of that person's onset of symptoms).		
Lassa Fever	Lassa Fever (LASF) is a viral hemorraghic fever endemic exclusively to West Africa, caused by a rodent-borne arenavirus. Transmission of LAS virus is believed to occur via exposure to rodent excreta, either from direct inoculation to the mucous membranes or from inhalation of aerosols produced when rodents urinate. Secondary human-to-human transmission via contact with infected blood or bodily fluids, from oral or mucosal exposure is generally moderate. The antiviral drug ribavirin seems to be an effective treatment for Lassa fever if given early on in the course of clinical	3-21 (7) days	Arena virus detected by any test on any specimen	A person with gradual onset of fever >38 °C AND 1. at least two minor signs or symptoms: headache, sore throat, vomiting, diffuse abdominal pain or tenderness, chest or retrosternal pain, cough, diarrhoea, generalized myalgia or arthralgia, profuse weakness, proteinuria, leucopenia AND one major sign or symptom: bleeding from the mouth, nose, rectum, or vagina, swollen neck or face, conjunctivitis or subconjunctival bleeding, spontaneous abortion, petechial or hemorrhagic rash, new onset of	Any deceased suspected case (where it has not been possible to collect specimens for laboratory confirmation) having an epidemiological link.	"A confirmed case is a person with laboratory evidence of Lassa virus infection by (a.PCR positive and virus isolation from the patient's first (single) specimen; OR b.PCR positive and IgM positive result on patient's first (single) specimen; OR c. PCR positive on two separate specimens from the same patient collected at least one day apart; OR d. PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative but IgM/IgG positive result in patient's second specimen collected at least one day apart; OR e. Increase in IgM/IgGtitres between acute and convalescent specimens) OR is a suspected case with laboratory suggestive evidence of Lassa virus infection by (IgM positive result on patient's first specimen).

	illness.The disease has a gradual onset of fever with malaise, anorexia, headache, chest or retrosternal pain, sore throat, myalgia, arthralgia, lumbosacral pain, dizziness, erythemic or exudative pharynx, nausea, vomiting, epigastric, abdominal pain, tenderness, diarrhoea, morbilliform, maculopapular or petechial rash in fair-skinned people only, dry cough, no jaundice, edema, swelling of the face, and neck specific, bleeding (conjunctival injection or subconjunctival hemorrhage, facial flushing, hematemesis, melena, hematochezia, metrorrhagia, petechiae, epistaxis, bleeding from the gums and venepuncture sites, vaginal bleeding, hemoptysis or hematuria infrequent), mild-to moderate thrombocytopenia, hypotension, shock, moderate leukopenia, later leukocytosis, increased AST, ALT and AST> ALT, lactate level greater than 36 mg/dL, proteinuria common, spontaneous abortion, neurological complications (disorientation, tremor,			tinnitus or altered hearing, persistent hypotension, elevated AST or ALT OR 2. at least two major signs or symptoms; AND having relevant epidemiological exposure (known contact to a person suspected, probably or confirmed to have lassa fever or have travelled to an endemic area in the past 21 days).		"

	ataxia, seizures, coma), normothermic, hypothermic in late stage. The overall case-fatality rate is 1%. Observed case-fatality rate among patients hospitalized with severe cases of Lassa fever is 15%					
Lujo	Lujo is a hemorraghic fever/LHF caused by an arenavirus. LHF is contracted by humans via nosocomial route i.e. direct contact with infected blood, urine or pharyngeal secretions from infected person or rodent-borne through contact with virus-contaminated excreta, via inhalation of dust or aerosolized materials or vomites soiled with rodent feces or urine, or ingestion of contaminated food. First it presents as non-specific febrile illness with fever, headache and myalgia, followed by diarrhea, pharyngitis, terminal features include severe respiratory distress, neurological signs and circulatory collapse. Severe bleeding is not a prominent feature, moderate thrombocytopenia (20-104 x 10^9 cells/L), increased AST and leukocytosis. Ribavirine	7-13 days	Lujo virus or arena virus detected by any test on any specimen	A person with acute onset of fever >38.5°C, and at least three of the following signs and symptoms: severe headache, myalgia, diarrhea, pharyngitis, abdominal pain, retrosternal chest pain, respiratory distress, moderate thrombocytopenia, increased AST and leukocytosis, proteinuria, neurological signs or sudden inexplicable death AND having relevant epidemiological exposure (contact with a suspected, probable or confirmed Lujo case or a dead or sick animal (rodents) within the past 21 days).	Any deceased suspected case (where it has not been possible to collect specimens for laboratory confirmation) having an epidemiological link.	"A confirmed case is a person with laboratory evidence of Lujo virus infection by (a.PCR positive and virus isolation from the patient's first (single) specimen; OR b.PCR positive and IgM positive result on patient's first (single) specimen; OR c. PCR positive on two separate specimens from the same patient collected at least one day apart; OR d. PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative but IgM/IgG positive result in patient's second specimen collected at least one day apart; OR e. Increase in IgM/IgGtitres between acute and convalescent specimens) OR is a suspected case with laboratory suggestive evidence of Lujo virus infection by (IgM positive result on patient's first specimen). "

	may improve prognosis when administered in early course of disease. To date only five cases of LHF have been recognized and laboratory confirmed following a nosocomial outbreak in South Africa in 2008. The index case was medevacuated from Zambia to South Africa and consequently infected four HCWs. There was evidence of rodent activity on the index case farm.					
novel or new world arenaviruses			Arena virus detected by any test on any specimen			
Crimean-Congo viral haemorrhagic fever (human)	Congo fever is a viral hemorrhagic fever (CCHF) caused by a nairovirus. Humans become infected through the bites or crushing of ticks, by contact with a patient with CCHF during the acute phase of infection or by contact with blood or tissues from viremic livestock. The geographic range of the CCHF virus is known to be the most extensive one among the tick borne viruses related to human health. The disease has been reported in parts of Africa, Asia and Eastern	1 to 9 days	Crimean-Congo viral haemorragic fever virus or Bunyavirus detected by any test on any specimen	A person with acute onset of fever > 38°C, and with at least three of the following signs and symptoms: severe headache, nausea, vomiting, myalgia, prostration, pharyngitis, conjunctival injection, flushing, petechial rashes, bleeding into skin (ecchymoses), from nose, vomiting of blood, blood in urine or stool, decreased platelets count, hypotension and shock, leukopenia or leukocytosis, elevated	Any deceased suspected case (where it has not been possible to collect specimens for laboratory confirmation) having an epidemiological link.	A confirmed case is a person with laboratory evidence of CCHF virus infection by (a.PCR positive and virus isolation from the patient's first (single) specimen; OR b.PCR positive and IgM positive result on patient's first (single) specimen; OR c. PCR positive on two separate specimens from the same patient collected at least one day apart; OR d. PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative but IgM/IgG positive result in patient's second specimen collected at least one day apart; OR e. Increase in IgM/IgGtitres between acute and convalescent specimens) OR is a

	Europe. CCHF is the only endemic viral hemorrhagic fever to South Africa, primarily in the inland central plateau. No vaccine is available as yet and limited antiviral treatment, ribavirin for administration in the early phase of disease. Person presents in the first week of illness with high fever, headache, malaise, arthralgias, myalgias, nausea, abdominal pain, rarely diarrhea; hyptension, conjunctivitis, cutaneous flushing, skin rash, from 3-10 days: bleeding from various sites (petechiae, mucous membrane, conjunctival hemorrhage, hematuria, hematemesis, melena, mild to severe thrombocytopenia ((8 g/dL), platelet count < 105plts/L), moderate or severe leukopenia, sometimes leucosytosis, hemoglobulin and/or hematocrit could be decreased later in disease course, elevated liver enzymes (ALT >3 x, AST > 3x, GGT > 3 x, LDH > 2 x, usually AST> ALT), hemophagocytosis and DIC common, lactate dehydrogenase > 4			AST or ALT (> 100 U/L), oedema or neurologic signs. A rickettsial diagnosis is excluded. AND having relevant epidemiological exposure (History of being bitten by tick/s or crushed tick with bare hands OR Had direct contact with fresh blood or other tissues of livestock or game OR Had direct contact with blood, secretion or excretions of confirmed or suspected CCHF patient (including needle pricks) OR Resided in or visited a rural environment where contact with livestock or ticks was possible in the past 15 days).		suspected case with laboratory suggestive evidence of CCHF virus infection by (IgM positive result on patient's first specimen).

	mmmol/L (36 mg/dL), creatinephospokinase elevated > 2 x , blood urea nitrogen and creatinine (> 150um) increased, proteinuria, oliguria/anuria may occur. Further complications (1-2 weeks) are CNS abnormality, hepatomegaly, splenomegaly, jaundice, ascites, hemorrhagic diathesis, shock, multi-organ system failure, death (case-fatality rate 3-30%).					
17. Waterborne illness outbreak				An incident in which two or more persons experience a similar illness and are epidemiologically linked		No laboratory confirmation
18. Yellow fever	Yellow fever is an acute viral haemorrhagic disease transmitted by infected mosquitoes (Aedesaegypti). Humans can be fully potected if administered vaccination at least a month prior to travel to an endemic area in parts of Africa and South America. Vaccination at least ten days prior to travel provides 80-100% protection. Some infections can be mild but most lead to serious illness characterised by two stages. In the first stage fever, muscle pain,	3-6 days	Yellow fever virus detected by any test on any specimen type *Exclude IGG serology	A person with sudden onset of fever >38.5°C and with at least one of the following signs and symptoms: chills, headache, back and muscle pain, nausea and vomiting either or not followed by a 24hr. remission and a recurrence of signs and symptoms with jaundice, hepatitis, albuminuria, renal failure within two weeks or haemorrhagic signs, shock or death within three weeks of	Any deceased suspected case (where it has not been possible to collect specimens for laboratory confirmation) having an epidemiological link.	A confirmed case is a yellow fever unvaccinated person with laboratory evidence of yellow fever virus infection by (a.PCR positive and virus isolation from the patient's first (single) specimen; OR b.PCR positive and IgM positive result on patient's first (single) specimen; OR c. PCR positive on two separate specimens from the same patient collected at least one day apart; OR d. PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative but IgM/IgG positive result in patient's second specimen collected at least one day apart; OR

	back ache, nausea, vomiting, headache and weakness occur. In most cases, symptoms disappear after 3 to 4 days. About 15 to 25 per cent of those with yellow fever progress to the second stage also known as the 'toxic' stage, within 24 hours of recovering from initial symptoms, of which half die within 10 to 14 days after onset of illness. Visible bleeding from the mouth, nose, eyes or stomach, jaundice, dark urine, abdominal pain, vomiting, kidney and liver failure can occur during the second stage.			onset of illness AND having relevant epidemiological exposure (History of travel to a yellow fever endemic area in the week preceding the onset of illness, in the absence of having received vaccination against yellow fever in the past).		e. Increase in IgM/IgGtitres between acute and convalescent specimens).

CATEGORY 2 NOTIFIABLE MEDICAL CONDITIONS

Conditions to be notified through a written or electronic notification to the Department of Health within seven (7) days of diagnosis by health care providers as well as private and public health laboratories

Disease	Short description	Incubation period	CDW/lab alert case definition	Suspected case	Probable case	Confirmed case
1. Agricultural or stock remedy poisoning						
2. Bilharzia (schistosomiasis)	Parasitic fluke (schistosome) infection, acquired by skin exposure to surface water inhabited by infected intermediate host snails.	2-6 weeks for acute infection, variable for other	Schistosome eggs reported in urine or faeces, or on histopathology in biopsy samples; or positive	A person with compatible clinical features of acute infection (fever, hepatosplenomegaly,	A person with compatible clinical features and history of exposure in an endemic area, plus a	Schistosome eggs reported in urine or faeces, or on histopathology in biopsy samples; or ≥4-fold rise in titre of serological test over 2 weeks; or repeatedly positive

	Two species of schistosome produce urogenital and intestinal infections, respectively, with both shared and organ-specific clinical features.	presentations	serological or rapid antigen test for schistosomiasis.	urticaria, diarrhoea, etc), or intermediate infection (haematuria, cervicitis, etc) or late infection (hydronephrosis, portal hypertension, etc), and history of exposure in an endemic area.	single positive serological or antigen test, and/or haematuria, and/or raised eosinophil count (>0.45 x 10^9/L).	antigen test
3. Brucellosis	Brucellosis is an infectious disease caused by Brucellabacteria (melitensis and abortus). People can get the disease when they are in contact with infected animals or animal products contaminated (unpasteurised milk/dairy products) with the Brucella bacteria. Animals that are most commonly infected include sheep, cattle, goats. Pig, and dog brucellosis have not occurred in South Africa. Initial symptoms can include: fever, sweats, malaise, anorexia, headache, pain in muscles, joint, and/or back, fatigue. Some signs and symptoms may persist for longer periods of time. Others may never go away or reoccur and include recurrent fevers, arthritis, swelling of the testicle and scrotum area, swelling of the	5-60 days	Brucella or gram-ve Bacillus detected by any test on any specimen type OR Positive culture for Brucella species; or a positive serological test.	A person with acute or insidious onset of intermittent or irregular fever of variable duration, night sweats, undue fatigue, anorexia, weight loss, headache, and arthralgia. Local infection of organs may occur AND having relevant epidemiological exposure (e.g Occupational contact with infected ruminants or birth excretions or fetuses; or by eating or drinking unpasteurized/raw dairy products or undercooked meat; or breathing brucella bacteria in slaughterhouses or laboratory).	A probable case is a suspected case with a. laboratory Gram-ve Bacillus culture; OR b. A single high agglutination titre to Brucella; OR c. Detection of Brucella species by PCR testing from a normally sterile site other than blood.	A confirmed case is a person with laboratory evidence of Brucella infection by (a. Culture isolation of Brucella species; OR b.Detection of Brucella species by PCR testing from a blood sample; OR c.IgGseroconversion or a significant increase in IgG antibody level (e.g. fourfold or greater rise) to Brucella).

	heart (endocarditis), neurologic symptoms (in up to 5% of all cases), chronic fatigue, depression, swelling of the liver and/or spleen. There is a vaccine available for prevention in animals and reduce risk of exposure to humans. Treatment of human brucellosis requires longterm multiple antibiotic course. Brucellosis is rarely fatal if treated; in untreated persons, estimates of the case fatality rate vary from less than 2% to 5%. Deaths are usually caused by endocarditis or meningitis.					
4. Congenital rubella syndrome	Clinical syndrome consisting of birth defects occurring in an infant whose mother had rubella infection in pregnancy	N/A	A child less than 12 months of age with at least one of the following: detection of rubella-specific immunoglobulin M antibody OR positive rubella-specific immunoglobulin G antibodies OR a specimen that is PCR-positive for rubella virus	A child less than 12 months of age with at least one of the following: cataracts, glaucoma, congenital heart disease, hearing impairment, pigmentary retinopathy, purpura, hepatosplenomegaly, jaundice, microcephaly, developmental delay, meningoencephalitis, radioluscent bone disease	1)An infant with no laboratory confirmation of rubella infection but at least two of the following without a more plausible etiology: -cataracts or congenital glaucoma, -congenital heart disease -hearing impairment, -pigmentary retinopathy; 2)An infant with no laboratory confirmation of	A suspected case with at least one of the following: detection of rubella-specific immunoglobulin M antibody OR positive rubella-specific immunoglobulin G antibodies whose titre does not drop by at least two fold within a 4 week period OR a specimen that is PCR-positive for rubella virus

					rubella infection but at least one of the following without a more plausible etiology; -cataracts or congenital glaucoma, -congenital heart disease -hearing impairment, -pigmentary retinopathy; **AND** one or more of the following: -purpura, -hepatosplenomegaly, -jaundice, -microcephaly, -developmental delay, -meningoencephalitis, -radiolucent bone disease.	
5. Congenital syphilis	A condition affecting an infant or child (< 2 years) whose mother had untreated or inadequately treated syphilis.	**Early Congenital Syphilis**: may present anytime in infancy or early childhood (< 2 years).	Infant or child < 2 years who has a REACTIVE non-treponemal test on serum/ blood (RPR POSITIVE) ? Ante-natal clinic attendee who has a		Infant or child < 2 years whose mother had **untreated or *inadequately treated syphilis at delivery,regardless of signs in infant** OR	Probable case with confirmatory laboratory tests on placenta/ amniotic fluid/ autopsy material/ exudates from suspicious lesions/ body fluids e.g. nasal discharge, CSF • motile treponemes seen on darkfield microscopy

		An infected infant may be asymptomatic at birth and develop signs 4-8 weeks after birth.	REACTIVE non-treponemal test on serum/ blood (RPR or rapid test POSITIVE)		An infant or child who has a **reactive non-treponemal test for syphilis (RPR) AND any one of the following**: • Any evidence of congenital syphilis on physical examination: hepatosplenomegaly, skin rash, jaundice, anaemia, mucosal lesions, nasal discharge • Any evidence of congenital syphilis on x-ray of long bones: e.g. periostitis, tibial erosions • An elevated cerebrospinal fluid (CSF) white cell count and protein (without other cause) • A reactive cerebrospinal fluid (CSF) venereal disease research laboratory test	and/or • *Treponemapallidum* DNA positive on PCR

					(VDRL) test • A reactive serum IgM antibody test (e.g. FTA-Abs IgM) OR Stillborn neonate whose mother had **untreated or *inadequately treated syphilis at delivery** *Inadequately treated mother: reactive ante-natal non-treponemal test (RPR or rapid test) AND inadequate penicillin dosing (i.e. **did not receive** at least **1 dose** of benzathine penicillin **more than 30 days before** delivery)	
6. Diphtheria	Caused by infection with toxin-producing strains of *Corynebacteriumdiphtheriae*, *C. ulcerans* or *C. pseudotuberculosis*. Occurs in two forms: the most common form is disease affecting the upper respiratory tract mucosa	Usually 2-5 days, may range from 1-10 days.	Laboratory-confirmed by growth (culture Organism code = *C. diphtheriae*) or detection in <u>any specimen</u>(by PCR positive). All ages.	A person who presents with an upper-respiratory tract illness characterised by sore throat, low-grade fever AND an adherent membrane of the nose, pharynx, tonsils, or larynx.	A person who presents with an upper-respiratory tract illness characterised by sore throat, low-grade fever AND an adherent membrane of the nose, pharynx,	Any person with signs and symptoms consistent with diphtheria (respiratory and/or cutaneous) and culture or detection by PCR of *C. diphtheriae* or *C. ulcerans* or *C. pseudotuberculosis* from a clinical specimen which is confirmed to be tox gene positive by PCR or toxin-

	('respiratory' diphtheria), and the skin (cutaneous diphtheria). Spread via droplets or direct contact with infected skin lesions or respiratory secretions.			OR cutaneous diphtheria as described in probable definition.	tonsils, or larynx; OR a person who has an epidemiological link to a confirmed case, who has respiratory tract symptoms but no membrane; OR a patient with a skin lesion;AND *C. diphtheriae/C. ulcerans/C. pseudotuberculosis* has been isolated from relevant specimens but toxigenicity status has not been confirmed.	producing by ELEK testing.
7. Enteric fever (typhoid or paratyphoid fever)			*Salmonellatyphi*detected by any test on any specimen type	Cannot be notified as a clinically suspected case		All specimens: Culture-confirmed Salmonella isolate, biochemically confirmed as Salmonella; biochemically consisitent with *Salmonella Typhi*; serotyping confirmed as *Salmonella Typhi* (O:9; H:d). *Note serological tests have poor sensitivity and specificity in the South African context and should not be used to prove/disprove diagnoses.*
8. *Haemophilusinfluenzae* type B	*Haemophilusinfluenzae* type b (Hib) causes pneumonia, septicaemia, meningitis, epiglottitis, septic arthritis, cellulitis, otitis media, and purulent pericarditis, as well	Unknown; probably 2–4 days.	Laboratory-confirmed by growth (culture Organism code = H. influenzae) or detection (by antigen detection Test code = H.	See probable case definition.	Invasive disease such as bacteremia, meningitis, epiglottitis, cellulitis, septic arthritis, pneumonia,	The isolation of *Haemophilusinfluenzae* type b from a normally sterile site specimen (e.g., blood; cerebrospinal, pericardial or synovial fluid), or a positive Gram stain and latex

	as less common invasive infections such as endocarditis, osteomyelitis, and peritonitis. Infections are clinically indistinguishable from infections caused by other bacteria. Spread by dropletsor direct contact with respiratory tract secretions. Asymptomatic carriage occurs.		influenzae b or by PCR positive) detected in a CSF, blood culture or fluid. All ages.		empyema, pericarditis or osteomyelitis where the public health physician, in consultation with the physician and microbiologist, considers that Hib disease is the most likely diagnosis	result, or a positive PCR result.
9. Hepatitis A				This condition cannot be notified clinically, as it mimics any other cause of jaundice.		The presence of Hepatitis A-specific IgMantibodies(Anti-HAV IgM).
10. Hepatitis B	Viral infection of the liver. Modes of transmission include perinatal, blood borne (e.g. health-care setting, PWID) and Sexual.	2-6 months	IgM anti-HBc positive, OR HBsAg positive OR total anti-HBc OR HBeAg positive OR HBV DNA positive	-Acute: discrete onset of an acute illness with signs/symptoms of (i) acute infectious illness (e.g. fever, malaise, fatigue) and (ii) liver damage (e.g. anorexia, nausea, jaundice, dark urine, right upper quadrant tenderness, AND/OR raised alanine aminotransferase (ALT) levels more than ten times the upper limit of normal) - Chronic: person not meeting the case definition for acute hepatitis (e.g. person tested in the	N/A	1)Acute: -IgM anti-HBc positive, or - IgM anti-HBc +ve AND HBsAg positive 2)Chronic: - HBsAg +ve OR -Dual positive for total anti-HBc AND HBsAg

				context of the evaluation of a chronic liver disease, a check-up or a survey)		
11. Hepatitis C	Viral infection of the liver. Main route of transmission is blood borne (e.g.health-care setting, PWID). Perinataland Sexual transmission rare.	2-6 months	HCV RNA positive OR anti-HCV positive OR OR HCV Ag positive	-Discrete onset of an acute illness with signs/symptoms of (i) acute infectious illness (e.g. fever, malaise, fatigue) and (ii) liver damage (e.g. anorexia, nausea, jaundice, dark urine, right upper quadrant tenderness, AND/OR raised alanine aminotransferase (ALT) levels more than ten times the upper limit of normal) - Chronic: person not meeting the case definition for acute hepatitis (e.g. person tested in the context of the evaluation of a chronic liver disease, a check-up or a survey)	N/A	1)Acute: HCV RNA +ve and anti-HCV –ve OR Seroconversion to anti-HCV positive 2)Chronic: HCV RNA +ve OR HCV Ag +ve
12. Hepatitis E				This condition cannot be notified clinically		The presence of Hepatitis E-specific IgM antibodies(Anti-HEV IgM).
13. Lead poisoning						
14. Legionellosis	Disease caused by bacteria from the genus *Legionella* commonly presents with a spectrum of illness ranging from asymptomatic, to severe pneumonia (Legionnaire's Disease), often requiring hospitalisation. Acquired from inhalation of	2 – 19 days.	Laboratory-confirmed by growth (culture Organism code = *Legionella* (any species, L. *pneumophila*, *L. longbeachae*, etc.) or detection (by PCR positive) detected in any specimen, or by antigen detection in urine (test	Any person with clinical/radiological evidence of pneumoniawhere the public health physician, in consultation with the physician and microbiologist, considers that Legionnaire's disease as the most likely	Any person with clinical/radiological evidence of pneumonia with: 1)*Legionella pneumophila*non-serogroup 1 or other *Legionella* spp. specific antibody response (fourfold or	Any person with clinical/radiological evidence of pneumonia and at least one of the following: 1) Isolation of *Legionella* spp. from a respiratory specimen or any normally sterile site 2) Detection of *Legionella pneumophila*serogroup 1 antigen in urine 3) Detection of *Legionella*spp.

	contaminated aerosols.		code Legionella IFA) or *Legionella* serology (use final result POSITIVE - cut offs may differ; or flag if legionella serology done, and interpret at NICD). All ages. Human cases ONLY (to exclude environmental samples).	diagnosis.	greater rise in specific serum antibody titer).	nucleic acid in a clinical specimen 4)*Legionella*pneumophilaserogroup 1 specific antibody response (fourfold or greater rise in specific serum antibody titer).
15. Leprosy						
16. Maternal death (pregnancy, childbirth and puerperium)						
17. Mercury poisoning						
18. Pertussis	Highly contagious bacterial respiratory tract disease, caused by *Bordetella pertussis.* It occurs mainly in infants and young children and is transmitted through respiratory secretions.	Usually 7– 10 days, can range from 4–21 days.	Laboratory-confirmed by growth (culture Organism code = *Bordetella pertussis*) or detection (by PCR positive) detected in any upper respiratory tract sample or Pertussis serology (use final result POSITIVE - cut offs may differ; or flag if pertussis serology done, and interpret at NICD). All ages.	Any person with an acute cough illness lasting ≥14 days (cough illness of any duration for children <1 year), without an apparent cause plus one or more of the following signs or symptoms: paroxysms of coughing; or inspiratory "whoop"; or post-tussive vomiting.	A suspected case with signs and symptoms consistent with pertussis and confirmed epidemiologic linkage to a laboratory-confirmed case of pertussis in the 21 days before the onset of symptoms.	Any person with signs and symptoms consistent with pertussis and Isolation *of B. pertussis* from a clinical respiratory specimen OR polymerase chain reaction positive for pertussis OR specific antibody response (fourfold or greater rise in specific serum antibody titer).
19. Tetanus						
20. Tuberculosis: pulmonary						

21. Tuberculosis: extra-pulmonary						
22. Tuberculosis: multidrug-resistant (MDR-TB)						
23. Tuberculosis: extensively drug-resistant (XDR-TB)						

CATEGORY 3 NOTIFIABLE MEDICAL CONDITIONS

To be notified through a written or electronic notification to the Department of Health within seven (7) days of diagnosis by private and public health laboratories

Disease	Short description	Incubation period	CDW/lab alert case definition	Suspected case	Probable case	Confirmed case
1. Endemic arboviral diseases						
chikungunya fever	Chikungunya is caused by a virus transmitted by mosquitoes (certain Aedes species). Animal reservoirs of the virus include monkeys, birds, cattle, and rodents.No direct human-to-human transmission occurs.There are no vaccines to prevent infection with chikungunya virus and the most effective protective measures are those that avoid mosquito bites. No specific antiviral treatments	1- (2- 4) 12 days	Chikungunya virus or alphavirus detected by any test on any specimen type *Exclude IgG serology and HAI	A person with acute onset of fever >38.5°C and severe arthralgia particularly in wrist and ankles, with at least one of the following signs and symptoms maculo-papular rash, headache, myalgia AND having relevant epidemiological exposure (Residing in area known to be endemic or having travelled to chikungunya endemic or epidemic	A probable case is a suspected case with laboratory IgM antibodies against chikungunya virus in the absence of IgM to other alphaviruses.	A confirmed case is a person with laboratory evidence of chikungunya virus infection by (a.PCR positive and virus isolation from the patient's first (single) specimen; OR b.PCR positive and IgM positive result on patient's first (single) specimen; OR c. PCR positive on two separate specimens from the same patient collected at least one day apart; OR d. PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative but IgM/IgG positive result in patient's

	for chikungunya virus infection are available. The most common symptoms are fever and joint pain. Other symptoms may include muscle pain, headache and rash. Most patients feel better in 1 to 2 weeks but there may be some lasting symptoms such as joint pain and inflammation. Symptoms can be severe and disabling. Chikungunya is endemic in the northern eastern portion of South Africa (Limpopo, KwaZulu Natal) but human cases are mostly seen in travellers. Outbreaks have occurred in parts of South Africa and in Africa, Asia, Europe, the Indian and Pacific Oceans and the Carribean.			location with ongoing outbreak in the past 15 days of onset of acute illness).		second specimen collected at least one day apart; OR e. Increase in IgM/IgGtitres between acute and convalescent specimens).
West Nile disease	West Nile virus is most commonly transmitted to humans by mosquitoes (Culex species). No direct human-to-human transmission occurs.There are no medications to treat or vaccines to prevent West Nile virus infection and the most effective protective measures are those that avoid mosquito bites. About 1 in 5 people who are	3-14 days	West Nile virus or flavivirus detected by any test on any specimen type *Exclude IgG serology and HAI	A person with acute onset of fever >38.5°C AND with at least one of the following signs and symptoms rash, headache, myalgia OR meningoencephalitis (focal neurological disease or an abnormal computerisedtomograph or magnetic resonance image or electrocardiographclearly	A probable case is a person with laboratory IgM antibodies against West Nile virus in the absence of IgM to other flaviviruses AND having relevant epidemiological exposure.	A confirmed case is a person with laboratory evidence of West Nile virus infection by (a.PCR positive and virus isolation from the patient's first (single) specimen; OR b.PCR positive and IgM positive result on patient's first (single) specimen; OR c. PCR positive on two separate specimens from the same patient collected at least one day apart; OR d. PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative

	infected will develop a fever with other symptoms e.g. headache, body aches, joint pains, vomiting, diarrhea, or rash. Most people with this type of West Nile virus disease recover completely, but fatigue and weakness can last for weeks or months. Less than 1% of infected people develop a serious, sometimes fatal, neurologic illness such as encephalitis or meningitis and symptoms include headache, high fever, neck stiffness, disorientation, coma, tremors, seizures, or paralysis. Recovery from severe disease may take several weeks or months. Some of the neurologic effects may be permanent. About 10 percent of people who develop neurologic infection due to West Nile virus will die. West Nile virus is endemic in South Africa and more prevalent in the central inland plateau.			impaired level of consciousness presence of pleocytosis in cerebrospinal fluid) AND having relevant epidemiological exposure (Residing in area known to be endemic or having travelled to West Nile endemic or epidemic location with ongoing outbreak in the past 15 days of onset of acute illness).		but IgM/IgG positive result in patient's second specimen collected at least one day apart; OR e. Increase in IgM/IgGtitres between acute and convalescent specimens).
Sindbis fever	Sindbis virus is an alphavirus most commonly transmitted to humans by mosquitoes (Culex species). Sindbiscycles between ornithophilic mosquito species and birds.	< 7 days	Sindbis virus or alphavirus detected by any test on any specimen type *Exclude IgG serology and HAI	A person with fever > 38°C and with at least one of the following signs and symptoms: rash, arthralgia, polyarthritis, myalgia,	A probable case is a suspected case with laboratory IgM antibodies against Sindbis virus in the absence of IgM to	A confirmed case is a person with laboratory evidence of Sindbis virus infection by (a.PCR positive and virus isolation from the patient's first (single) specimen; OR b.PCR positive and IgM positive result on

	No direct human-to-human transmission occurs.There are no vaccines to prevent infection with Sindbis virus and the most effective protective measures are those that avoid mosquito bites. No specific antiviral treatments for Sindbis virus infection are available. Most people infected with Sindbisvirus will have no symptoms. About 1 in 5 people who are infected will develop a fever with other symptoms e.g. headache, body aches, joint pains, vomiting, diarrhea, or rash. Sindbisvirus is endemic in South Africa and more prevalent in the central inland plateau.			headache, nausea and vomiting, malaise, weakeness, disorientation, drowsiness. AND having relevant epidemiological exposure (Residing in area known to be endemic or having travelled to Sindbis endemic or epidemic location with ongoing outbreak in the past 15 days of onset of acute illness).	other alphaviruses.	patient's first (single) specimen; OR c. PCR positive on two separate specimens from the same patient collected at least one day apart; OR d. PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative but IgM/IgG positive result in patient's second specimen collected at least one day apart; OR e. Increase in IgM/IgGtitres between acute and convalescent specimens).
2. Non-endemic arboviral diseases						
Dengue fever + warning signs	"Dengue is caused by any one of four related viruses transmitted by mosquitoes (Aedesaegypti). The four dengue viruses originated in monkeys and independently jumped to humans in Africa or Southeast Asia between 100 and 800 years ago. The vector mosquitos usually bite during the day, especially in the early	3 - 14 days	Dengue virus or flavivirus detected by any test on any specimen type *Exclude IgG serology and HAI	A person with acute onset of fever >38.5°C and two of the following signs and symptoms e.g. rash, nausea, and vomiting, headache, retro-orbital pain, joint pain, myalgia, arthralgia, leukopenia and any of following warning signs e.g. abdominal pain or tenderness, bleeding	A probable case is a suspected case with laboratory IgM antibodies against Dengue virus in the absence of IgM to other flaviviruses.	A confirmed case is a person with laboratory evidence of dengue virus infection by (a.PCR positive and virus isolation from the patient's first (single) specimen; OR b.PCR positive and IgM positive result on patient's first (single) specimen; OR c. PCR positive on two separate specimens from the same patient collected at least one day apart; OR d. PCR positive but IgM/IgG negative result in patient's

	morning and late afternoon. No direct human-to-human transmission occurs. There are not yet any vaccines to prevent infection with dengue viruses and the most effective protective measures are those that avoid mosquito bites. No specific antiviral treatments for dengue viruses infection are available. Dengue causes illness that can range from a mild fever to a severe, even fatal condition. Some people, particularly young children, may have no symptoms; however most adults and older children get sick. The disease lasts about a week.Typical symptoms include: sudden onset of fever, intense headache (especially behind the eyes), muscle and joint pain (ankles, knees and elbows), loss of appetite, vomiting, diarrhoea, abdominal pain, a metallic taste in the mouth, flushed skin on face and neck, fine red skin rash as fever subsides, rash on arms and legs, severe itching, peeling of skin and hair loss, minor bleeding (nose or gums) and heavy menstrual periods, extreme fatigue.			from gums, nose, into eyes rapid decrease in platelets count, lethary, restlessness, liver enlargement >2 centimeters, increasing hematocrit AND having relevant epidemiological exposure (Travel to a dengue endemic or epidemic location with ongoing outbreak in the past 15 days of onset of acute illness).		first specimen and PCR negative but IgM/IgG positive result in patient's second specimen collected at least one day apart; OR e. Increase in IgM/IgGtitres between acute and convalescent specimens).

	A small proportion of cases can progress to severe dengue (sometimes called dengue haemorrhagic fever and dengue shock syndrome), which can occur in both adults and children. A rapid deterioration can occur 2-5 days after onset of fever. The complications of severe dengue can lead to collapse and sometimes death. Dengue is endemic in Africa, Asia, South and Central America and the Indian Ocean Islands; but not in South Africa. A large epidemic with > 40 000 cases occurred in Durban in 1927. Dengue is the most widespread arthopod-borne disease globally with yearly estimates of 400 million infections. "					
Sever Dengue				A person with dengue AND one of the following additional clinical findings: 1. pleural or pericardial effusion, ascites, respiratory distress, shock OR 2. vomiting of blood, blood in stool or bleeding from vagina OR 3. elevated AST or ALT (≥ 1000 U/L),		

				low level of conciousness, encepahlitis, meningitis, myocarditis, cholecystitis, pancreatitis AND having relevant epidemiological exposure (Travel to a dengue endemic country or epidemic location with ongoing outbreak in the past 15 days of onset of acute illness).		
Zika virus disease	Zika virus is spread by mosquitoes (Aedesaegypti or Aedesalbopictus).These are the same mosquitos that can carry dengue, chikungunya, and yellow fever viruses. When Zika virus appears in an area for the first time, it can spread very quickly in susceptible comptent mosquito and consequently in human population via mosquito bites. There are no vaccines to prevent infection with zika virus and the most effective protective measures are those that avoid mosquito bites. Approximately one person in five who catches Zika virus is likely to feel sick, and if they do, the disease is generally not severe and lasts only a few days. People who do get	2-12 days	Zika virus or flavivirus detected by any test on any specimen type *Exclude IgG serology	A person with 2 or more of the following signs and symptoms: Fever, headache, myalgia, arthralgia, rash, non-purulent conjunctivitis AND having relevant epidemiological exposure (Travel to an area with active zika virus transmission OR exposure to semen from traveler to these areas up to 10 weeks after return); OR with Congenital clinical findings in the infant or fetus: Microcephaly or other CNS abnormalities.	A probable case is a person with laboratory IgM antibodies against West Nile virus in the absence of IgM to other flaviviruses AND having relevant epidemiological exposure.	A confirmed case is a person with laboratory evidence of zika virus infection either by (a.PCR positive and virus isolation from the patient's first (single) specimen; OR b.PCR positive and IgM positive result on patient's first (single) specimen; OR c. PCR positive on two separate specimens from the same patient collected at least one day apart; OR d. PCR positive but IgM/IgG negative result in patient's first specimen and PCR negative but IgM/IgG positive result in patient's second specimen collected at least one day apart; OR e. Increase in IgM/IgGtitres between acute and convalescent specimens).

	sick may have: A fever, pain in the joints, especially in the hands and feet possibly with swelling, muscle pain, headache, especially with pain behind the eyes, conjunctivitis, a skin rash that may be flat in some areas and bumpy in others, weakness or lack of energy. Zika virus can be transmitted from human to human by sexual route via semen for a period after infection. Recent outbreaks of Zika virus in the Pacific and the Americas and subsequent published studies show that the virus may be passed to the baby if the woman is infected while pregnant, and this can cause certain severe birth defects. Further studies are ongoing to provide further understanding of the likelihood of this occurring. There is also strong scientific consensus that Zika virus can cause a rare paralysing condition called Guillain-Barré Syndrome, noting that Zika is one of a number of possible causes. This condition has been found in areas where Zika virus outbreaks are occurring and in cases of individual					

	travellers returning from affected areas. There is currently no active zika virus transmission in South Africa.					
3. Shiga toxin-producing *Escherichia coli*			Detection of E.coli by any test from any specimen	Cannot be notified based on clinical symptoms only		All specimens: Culture-confirmed E. coli isolate; positive by PCR for stx gene
4. Rubella	Viral infection caused by an enveloped, ribonucleic acid (RNA) togavirus of the genus Rubivirus. Transmission is through respiratory droplets expelled by an infected individual.	The incubation period is 14 days (ranges from 12 to 23 days)	A positive laboratory test for rubella-specific immunoglobulin M antibody OR a specimen that is PCR-positive for rubella virus	Any person in whom a clinician suspects measles infection OR any person with fever and maculopapular rash (i.e. non-vesicular)		A suspected case with at least one of the following: detection of rubella-specific immunoglobulin M antibody OR a specimen that is PCR-positive for rubella virus
5. Non-typhoidal Salmonellosis			Detection of Salmonella spp. other than S. Typhi and S. Paratyphi by any test from any specimen	Cannot be notified based on clinical symptoms only		All specimens: Culture-confirmed Salmonella isolate, biochemically confirmed as Salmonella/ NTS; serologically NOT Salmonella Typhi
6. Shigellosis			Detection of *Shigella*by any test from any specimen	Cannot be notified based on clinical symptoms only		All specimens: Culture-confirmed Shigella
7. Healthcare-associated infections or multi drug-resistant organisms of public health importance	Carbapenemase-producing Enterobacteriaceae			Based on evidence blood culture and CSF (with increased WCC, protein and decreased glucose) are confirmed cases. Endotracheal aspirate, urine, and pus are probably cases. Criteria for specific types of infections: Urine: a. positive dipstick for leukocyte esterase and/or nitrate; b. pyuria (urine specimen with >10 000 white blood cell c. at least 2 urine cultures with repeated isolation of the MDRs d. >10to 5 colonies/mL of a single uropathogen. Pus aspirate or deep incision: a. neutrophils on microscopy b. organisms from aseptically obtained specimen submission. Tracheal aspirate: a. microscopically PMN and organism. Four main categories for HAI all from sterile sites: 1. blood stream infections (first isolate in 21 days);		
	Vancomycin-resistant enterococci					
	Staphylococcus aureus: hGISA and GISA					
	Colistin-resistant Pseudomonas aeruginosa					

				2. CSF - meningitis; 3. pneumonia (endotracheal aspirate, 4. urinary tract infections (Symptomatic urinary tract infections UTI), 5. surgical site infections (SIP/SIS-Superficial incisional Surgical site infections-primary and secondary). These infections are confirmed from specimens sent after <48h of hospital admission.		
	Colistin-resistant Acinetobacterbaumanii					
	Clostridium difficile					
Multi drug-resistant organisms of public health importance	*Neisseria gonorrhoeae* with decreased susceptibility to extended-spectrum cephalosporins (DSC NG)	Few days (3-5)	*Neisseria gonorrhoeae* culture isolate with cefixime MIC >/= 0.25 and/ or ceftriaxone MIC >/= 0.25 NB: all MICs in µg/ml	Persistent urogenital discharge (male urethritis syndrome/ vaginal discharge syndrome) following syndromic management with currently recommended dual treatment regimen for gonorrhoea (250mg ceftriaxone IM + 1g azithromycin stat PO) AND no likelihood of reinfection		Symptomatic or asymptomatic for gonorrhoea with *culture isolate of *Neisseria gonorrhoeae showing* decreased susceptibility to cefixime and/ or ceftriaxone. *Specimens for culture: swabs of urogenital tract/ pharynx/ rectum/ ocular discharge; sterile sites specimens (blood, synovial fluid)
	Extensively-drug resistant *Neisseria gonorrhoeae* (XDR NG)	Few days (3-5)	*Neisseria gonorrhoeae* culture isolate showingresistance to at least TWO *Class I antibiotics: Cefixime MIC >/=0.25 Ceftriaxone MIC >/= 0.25 Azithromycin MIC >/= 0.5 PLUS resistance to at least THREE **Class II antibiotics Penicillin MIC >/=2	Persistent urogenital discharge (male urethritis syndrome/ vaginal discharge syndrome) following syndromic management with currently recommended dual treatment regimen for gonorrhoea (250mg ceftriaxone IM + 1g azithromycin stat PO) AND no likelihood of reinfection		Symptomatic or asymptomatic for gonorrhoea with *culture isolate of *Neisseria gonorrhoeae*showing XDR. *Specimens for culture: swabs of urogenital tract/ pharynx/ rectum/ ocular discharge; sterile sites specimens (blood, synovial fluid)

			Ciprofloxacin MIC >/= 0.12 Gentamicin MIC >/=8 Spectinomycin MIC >/=64 Tetracycline MIC >/=2 *Class I antibiotics: those currently recommended for gonorrhoea treatment (dual therapy used) **Class II antibiotics:used less frequently or proposed as salvage therapy NB: all MICs in µg/ml			

Table 1: Data elements to be reported by health care providers for Category 1 and Category 2 notifiable medical conditions

Patient details	First names
	Surname
	Sex (M/F)
	Citizenship
	ID number
	Passport number (if applicable)
	Other ID number (if applicable)
	Date of birth (dd/mm/yyyy)
	Age
	Patient HPRS-PRN
	Patient File/Folder #
	Hospital number (if applicable)
	Ward name (if hospitalised)
	Residential address
	Telephone number
	Name and address of employer, school or other institution where patient spends much of the day
	Telephone number of employer, school or other institution where patient spends much of the day
Medical condition details	Method of diagnosis (clinical, lab, x-ray, etc)
	Notifiable medical condition diagnosed
	ICD10 code
	Clinical symptoms
	Date of onset
	Date of presentation to health establishment
	Vaccination status
	Treatment given
	Case EPID number
Specimen details	Specimens collected (yes or no)
	Specimen type
	Date of specimen collection (dd/mm/yyyy)
	Specimen laboratory barcode/number
Patient outcome/status	Deceased (yes/no)
	Date of death (dd/mm/yyyy)
	Outpatient/discharged
	Transferred to another facility (yes/no)
	Name of health establishment if transferred
Travel history	Places travelled to in the last 60 days (country, province, locality)
	Dates travelled to and from the place of travel (dd/mm/yyyy)
Health care provider details	Health care provider name
	Health care provider practice number
	Health care provider contact number
Health establishment details	Health establishment name
	Health establishment registration number
	Sub-district
	District/ Municipality
	Province
	Health establishment contact number
	Date of notification

Additional information may be requested as when necessary

Table 2: Data elements to be reported by private and public health laboratories for Category 1, 2 and 3 notifiable medical conditions

Patient details	First names	
	Surname	
	Sex (M/F)	
	Citizenship	
	ID number	
	Passport number (if applicable)	
	Other ID number (if applicable)	
	Date of birth (dd/mm/yyyy)	
	Age	
	Hospital number (if applicable)	
	Ward name (if hospitalised)	
	Residential address	
	Telephone number	
Specimen and laboratory test details	Specimen type	
	Date of specimen collection (dd/mm/yyyy)	
	Date of specimen receipt into laboratory (dd/mm/yyyy)	
	Laboratory test performed	
	Pathogens isolated	1.
		2.
		3.
		4.
	Final laboratory test result	
	Date final result authorised and reported to health care provider (yyyy/mm/dd)	
Additional comments		
Health care provider details	Health care provider name	
	Health care provider practice number	
	Health care provider contact number	
Health establishment details	Health establishment name	
	Health establishment registration number	
	Sub-district	
	District/ Municipality	
	Province	
	Health establishment contact number	
Testing laboratory details	Laboratory name	
	Laboratory practice number	
	Pathologist or laboratory personnel name	
	Sub-district	
	District/Municipality	
	Province	
	Laboratory contact number	

Additional information may be requested as and when necessary

Table 3: Data elements to be reported by medical schemes for Category 1, 2 and 3 notifiable medical conditions

Patient details	First names	
	Surname	

	Sex (M/F)	
	Citizenship	
	ID number	
	Passport number (if applicable)	
	Other ID number (if applicable)	
	Date of birth (dd/mm/yyyy)	
	Age	
	Hospital number (if applicable)	
	Ward name (if hospitalised)	
	Residential address	
	Telephone number	
Medical condition details	Method of diagnosis (clinical, lab, x-ray, etc)	
	Notifiable medical condition diagnosed	
	ICD10 code	
	Clinical symptoms	
	Date of onset	
	Date of presentation to health establishment	
	Treatment given	
Specimen and laboratory test details	Specimen type	
	Date of specimen collection (dd/mm/yyyy)	
	Date of specimen receipt into laboratory (dd/mm/yyyy)	
	Laboratory test performed	
	Pathogens isolated	1.
		2.
		3.
		4.
	Final laboratory test result	
	Date final result authorised and reported to health care provider (yyyy/mm/dd)	
Additional comments		
Health care provider details	Health care provider name	
	Health care provider practice number	
	Health care provider contact number	
Health establishment details	Health establishment name	
	Health establishment registration number	
	Sub-district	
	District/ Municipality	
	Province	
	Health establishment contact number	
Testing laboratory details	Laboratory name	
	Laboratory practice number	
	Pathologist or laboratory personnel name	
	Sub-district	
	District/Municipality	
	Province	
	Laboratory contact number	

Additional information may be requested as and when necessary