

**AD HOC GROUP OF THE STATES PARTIES TO
THE CONVENTION ON THE PROHIBITION OF THE
DEVELOPMENT, PRODUCTION AND STOCKPILING
OF BACTERIOLOGICAL (BIOLOGICAL) AND
TOXIN WEAPONS AND ON THEIR DESTRUCTION**

BWC/AD HOC GROUP/WP.387
9 July 1999

ENGLISH
Original: SPANISH

Fifteenth session
Geneva, 28 June v 23 July 1999

Working paper submitted by Argentina

CLASSIFICATION AND CHARACTERISTICS OF BIOLOGICAL AGENTS

BIOLOGICAL AGENTS: VIRUSES

CLASSIFICATION AND CHARACTERISTICS

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AGENT	CHARACTERISTICS OF THE AGENT	SYMPTOMS	INCUBATION PERIOD	MORTALITY RATE	INFECTION ROUTES	AFFECTED ORGANISMS	SOURCE OF INFECTION v VECTOR	PROTECTION v PREVENTION	DETECTION	DECONTAMINATION v TREATMENT
INFLUENZA	SINGLEvSTRAND RNA VIRUS . HIGH MUTATION RATE. SIZE: 0.07v0.1 µm.	FEVER, WEAKNESS, GENERAL PAIN, SORE THROAT, COUGH, RESPIRATORY TRACT INFLAMMATION.	1v3 DAYS	0v1%	RESPIRATORY	HUMAN BEINGS	v AIR: PERSONvTOv PERSON. v INHALATION OF AEROSOLIZED RESPIRATORY SECRECTIONS.	<u>HUMAN BEINGS:</u> v VACCINE (RELATIVELY EFFECTIVE). v MASKS. <u>ENVIRONMENT:</u> v ISOLATION OF PATIENTS AND CONTAMINATED MATERIALS.	v ELISA v PCR	<u>HUMAN BEINGS:</u> v TREATMENT WITH ANTIBIOTICS TO PREVENT SECONDARY BACTERIAL INFECTIONS. v TREATMENT WITH ANTIVIRALS. <u>ENVIRONMENT:</u> v DISINFECTION: CAN BE EASILY ELIMINATED WITH WATER VAPOUR OR ORDINARY ANTISEPTICS.
SMALLPOX	DOUBLEvSTRAND DNA VIRUS. RESISTS MOST DISINFECTANTS. CAN SURVIVE IN WATER FOR SEVERAL YEARS AT 22v27°C. SIZE: 0.15v0.2 µm.	HIGH FEVER, MUCOUS MEMBRANE AND SKIN LESIONS (BLISTERS AND PUSTULES): WEAKNESS, HEADACHE. IN SEVERE CASES: GENERALIZED HAEMORRHAGIC SYNDROME.	10v14 DAYS	1v30%	RESPIRATORY AND CUTANEOUS (LESIONS)	HUMAN BEINGS, CATTLE	v AIR: INHALATION OF AEROSOLIZED SECRECTIONS FROM INFECTED RODENTS. v PERSONvTOvPERSON TRANSMISSION (MOST MPORTANT). v THROUGH CONTACT WITH INFECTED RODENTS AND CONTAMINATED MATERIALS. RESERVOIR: RODENTS.	<u>HUMAN BEINGS:</u> v VACCINE. <u>ENVIRONMENT:</u> v ISOLATION OF PATIENTS AND CONTAMINATED MATERIALS. v CONTROL OF RODENT POPULATIONS. v ENVIRONMENTAL HYGIENE.	v OBSERVATION OF LESIONS UNDER TEM TRANSMISSION ELECTRON MICROSCOPE). v MOLECULAR BIOLOGY TECHNIQUES.	<u>HUMAN BEINGS:</u> v TREATMENT WITH ANTIBIOTICS TO PREVENT SECONDARY BACTERIAL INFECTIONS. <u>ENVIRONMENT:</u> v SENSITIVE TO HUMID HEAT OVER 78°C AND DRY HEAT OVER 118°C. v DISINFECTION: WITH ALCOHOL AND ACETONE AT ROOM TEMPERATURE FOR AN HOUR. v EXTERMINATION OF RODENT POPULATIONS.
YELLOW FEVER	SINGLEvSTRAND RNA VIRUS. SURVIVES FREEZING AND DESICCATION. SIZE: 0.17v0.28 µm.	HEADACHE. DIZZINESS, 3v6 DAYS RENAL LESION SIGNS. IN SEVERE CASES, MUSCULAR PAIN, JAUNDICE, GASTROENTERITIS, SEVERE HAEMORRHAGE, CONGESTION OF MUCOUS MEMBRANES,	3v6 DAYS	5% IN CASES OF JAUNDICE THE PERCENTAGE IS HIGHER.	CUTANEOUS (BITES)	HUMAN BEINGS	BITES OF INFECTED AEDES AEGYPTI MOSQUITOES (VECTOR).	<u>HUMAN BEINGS:</u> v VACCINE. <u>ENVIRONMENT:</u> v CONTROL OF MOSQUITO POPULATIONS.	v ELISA v PCR	<u>HUMAN BEINGS:</u> v SUPPORT TREATMENT (FLUIDS AND ANTISEPTICS). <u>ENVIRONMENT:</u> v SENSITIVE TO HIGH TEMPERATURES OVER 78°C FOR 10' AND ORDINARY ANTISEPTICS. v EXTERMINATION OF

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		DELIRIUM, HEPATIC AND RENAL FAILURE.								MOSQUITO POPULATIONS.
CONGO AND CRIMEA HAEMORRHAGI C FEVER VIRUS	SINGLEvSTRAND RNA VIRUS	BEGINS WITH A FLUvLIKE SYNDROME. HAEMHORRAGIC SYNDROME WITH NAUSEA AND VOMITING, LIVER SWELLING, EXHAUSTION AND COMA.	3v6 DAYS	10v50%	CUTANEOUS (LESIONS, BITES) AND RESPIRATORY	HUMAN BEINGS, CATTLE, RODENTS	v AIR: PERSONvTOv PERSON. v CONTACT WITH CONTAMINATED MATERIALS, RESPIRATORY SECRETIONS OR EXCREMENT OF AFFECTED ORGANISMS. v STING OF THE HYALOMMA TICK (VECTOR).	<u>HUMAN BEINGS:</u> v NO VACCINE. <u>ENVIRONMENT:</u> v ENVIRONMENTAL HYGIENE. v CONTROL OF RODENT AND TICK POPULATIONS. v SANITARY CONTROL OF CATTLE.	v ELISA v PCR	<u>HUMAN BEINGS:</u> v THERE IS NO SPECIFIC TREATMENT. JUST SYMPTOMATIC. <u>ENVIRONMENT:</u> v EXTERMINATION OF TICK AND RODENT POPULATIONS.
DENGUE: HAEMORRHAGI C FEVER VIRUS	SINGLEvSTRAND RNA VIRUS. FOUR STRAINS ORIGINATE THE DISEASE. FROZEN AND DRIED AT 23°C, CAN BE STORED FOR 5 YEARS.	FEVER, HEADACHE, RETROvOCULAR PAIN, BEHIND THE EYES, IN THE BACK, MUSCLES AND JOINTS. WEAKNESS AND IRREGULAR RASH. CONSTIPATION, CRAMPS. IN SEVERE CASES: BLEEDING IN THE DIGESTIVE SYSTEM WITH LIVER SWELLING, FACIAL FLUSHES, SUDDEN HIGH FEVER; SHOCK AND DEATH.	3v8 DAYS	VERY LOW IN MILD CASES. MORE THAN 50% IN THE HAEMORRv HAGIC FORM.	CUTANEOUS (LESIONS, BITES)	HUMAN BEINGS, MONKEYS, LABORA TORY MICE.	v BITES OF INFECTED MOSQUITOES FROM THE FOLLOWING SPECIES: AEDES AEGYPTI AND OTHER INFECTED AEDES. v CONTACT WITH CONTAMINATED BLOOD.	<u>HUMAN BEINGS:</u> v NO VACCINE. <u>ENVIRONMENT:</u> v CONTROL OF MOSQUITO POPULATIONS. (IDENTIFICA TION OF DIFFERENT STRAINS).	v ELISA. v MOLECULAR BIOLOGY TECHNIQUES	<u>HUMAN BEINGS:</u> v THERE IS NO SPECIFIC TREATMENT. JUST SYMPTOMATIC. <u>ENVIRONMENT:</u> v EXTERMINATION OF MOSQUITO POPULATIONS. v INACTIVATION USING ULTRAVIOLET LIGHT AND FORMALIN.
EASTERN EQUINE ENCEPHALITIC VIRUS	SINGLEvSTRAND RNA VIRUS. RESISTANT TO CHLOROFORM 0.2%, PHENOL 1 TO 2%, MERCURY CHLORIDE 0.05%. RESISTANT TO TEMPERATURES 72°C FOR 10'. CAN BE PRESERVED AT v52°C.	HEADACHE, FEVER, NAUSEA, VOMITING, DROWSINESS, DELIRIUM, COMA.	1v3 DAYS	5v70%	CUTANEOUS (BITES) AND RESPIRATORY	HUMAN BEINGS, HORSES AND MULES. MOST SEVERE CASES OBSERVED IN NEUROLOGIvC ALLY IMMATURE INDIVIDUALS	v AIR: INHALATION OF CONTAMINATED AEROSOLIZED PARTICLES. v BITES OF INFECTED MOSQUITOES FROM THE CULISETA MELANURA SPECIES (VECTOR).	<u>HUMAN BEINGS:</u> vVACCINE (RESTRICTED DISTRIBUTION). <u>ENVIRONMENT:</u> v CONTROL OF MOSQUITO POPULATIONS. v SANITARY CONTROL OF HORSES AND MULES.	v ELISA	<u>HUMAN BEINGS:</u> v THERE IS NO SPECIFIC TREATMENT. JUST SYMPTOMATIC. v TREATMENT WITH ANTIBIOTICS TO PREVENT SECONDARY INFECTIONS. <u>ENVIRONMENT:</u> v EXTERMINATION OF MOSQUITO POPULATIONS. v SANITARY TREATMENT OF HORSES AND MULES.
HANTAAAN VIRUS	SINGLEvSTRAND RNA VIRUS. THERE ARE 122 DIFFERENT STRAINS.	IT MAY BE FOUND IN TWO TYPES: v HAEMORRHAGIC FEVER, WITH RENAL	10v30 DAYS	30% IN RENAL FORM. 60% IN RESPIRATORY	RESPIRATORY AND CUTANEOUS (THROUGH THE CONJUNC vTIVA)	HUMAN BEINGS	v AIR: INHALATION OF AEROSOLIZED EXCRETIONS OF VARIOUS INFECTED RODENTS (DEPENDING ON	<u>HUMAN BEINGS:</u> v NO VACCINE. <u>ENVIRONMENT:</u> v CONTROL OF RODENT	v ELISA. v THROUGH MOLECULAR BIOLOGY	<u>HUMAN BEINGS:</u> v THERE IS NO SPECIFIC TREATMENT. JUST SYMPTOMATIC.

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AGENT	CHARACTERISTICS OF THE AGENT	SYMPTOMS	INCUBATION PERIOD	MORTALITY RATE	INFECTION ROUTES	AFFECTED ORGANISMS	SOURCE OF INFECTION v VECTOR	PROTECTION v PREVENTION	DECONTAMINATION v TREATMENT
		INVOLVEMENT, STARTING WITH HEADACHE, MYALGIA AND PHOTOPHOBIA FOLLOWED BY PROTEINURIA. GENERALIZED FEBRILE SYMPTOMS, WITH RESPIRATORY DISTRESS.		FORM.			GEOGRAPHICAL LOCATION). v CONTACT WITH THE EYES. INFECTED RODENTS: IN ARGENTINA OLIGORIZOMUS LONGICAUDATA AND IN THE UNITED STATES OF AMERICA PEROMISCUS MANICULATUS.	POPULATIONS. v ENVIRONMENTAL HYGIENE.	TECHNIQUES (IDENTIFICATION v OF DIFFERENT STRAINS).
JUNIN VIRUS	DOUBLEvSTRAND RNA VIRUS	HEADACHE, FEVER, MUSCULAR AND ABDOMINAL PAIN, NAUSEA, VOMITING, VASCULAR DAMAGE. IN SEVERE CASES: HAEMORRHAGIC SYNDROME AND NEUROLOGICAL SIGNS. DISEASE: ARGENTINE HAEMORRHAGIC FEVER.	7v16 DAYS	3v18%	RESPIRATORY	HUMAN BEINGS v	AIR: INHALATION OF AEROSOLIZED EXCRETIONS FROM INFECTED RODENTS OF THE CALOMYS MUSCULINUS SPECIES.	<u>HUMAN BEINGS:</u> v EXPERIMENTAL VACCINE EXISTS. <u>ENVIRONMENT:</u> v CONTROL OF RODENT POPULATIONS.	v ELISA v PCR <u>HUMAN BEINGS:</u> v THERE IS NO SPECIFIC TREATMENT. JUST SYMPTOMATIC. <u>ENVIRONMENT:</u> v EXTERMINATION OF RODENT POPULATIONS.
LASSA FEVER VIRUS	DOUBLEvSTRAND RNA VIRUS.	FEVER, MUSCULAR AND ABDOMINAL PAIN, NAUSEA, VOMITING, DIARRHOEA.	7v24 DAYS	15%	DIGESTIVE AND RESPIRATORY	HUMAN BEINGS v	AIR: INHALATION OF AEROSOLIZED EXCRETA OF RODENTS OF THE MASTOMYS TYPE. v INGESTION OF CONTAMINATED FOOD.	<u>HUMAN BEINGS:</u> v NO VACCINE. v TREATMENT WITH ANTIVIRALS (PREVENTION). <u>ENVIRONMENT:</u> v CONTROL OF RODENT POPULATIONS. v PROPER PREPARATION OF MEALS. v ENVIRONMENTAL HYGIENE.	v ELISA v PCR <u>HUMAN BEINGS:</u> v TREATMENT WITH ANTIVIRALS. <u>ENVIRONMENT:</u> v EXTERMINATION OF RODENT POPULATIONS. v DISINFECTION WITH SODIUM HYPOCHLORITE 5 G/L.
MARBURG VIRUS	SINGLEvSTRAND RNA VIRUS.	FEVER, HEADACHE, MYALGIA, MUSCULAR PAIN, VOMITING, DIARRHOEA, HAEMORRHAGIC DIATHESIS, PHOTOPHOBIA, SKIN RASH, JAUNDICE. PROMINENT MACULOPAPULAR	5v10 DAYS	25v50%	CUTANEOUS (WOUNDS)	HUMAN BEINGS v	CONTACT WITH BLOOD, INFECTED MATERIALS AND SECRETIONS. VECTOR: PROBABLY MONKEYS.	<u>HUMAN BEINGS:</u> v NO VACCINE. <u>ENVIRONMENT:</u> v ISOLATION OF PATIENTS.	v ELISA v PCR <u>HUMAN BEINGS:</u> v THERE IS NO SPECIFIC TREATMENT. JUST SYMPTOMATIC.

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EBOLA VIRUS	SINGLEvSTRAND RNA VIRUS.	RASH, WIDESPREAD INTRAVASCULAR COAGULATION. DISEASE: MARBURG FEVER. FEVER, HEADACHE, MUSCULAR PAIN, NAUSEA, VOMITING, ANGINA, LIVER DYSFUNCTION. INTERNAL AND EXTERNAL BLEEDING WITH MACULOPAPULAR RASH.	2v21 DAYS	50v90%	RESPIRATORY	HUMAN BEINGS, CHIMPANv ZEES	v DIRECT CONTACT WITH SICK INDIVIDUALS OR THEIR SECRECTIONS.	<u>HUMAN BEINGS:</u> v NO VACCINE. v PROTECTION EQUIPMENT FOR SANITARY PERSONNEL. <u>ENVIRONMENT:</u> v ISOLATION OF PATIENTS.	v ELISA v ISOLATION. CULTURE AND EXAMINATION UNDER TEM.	<u>HUMAN BEINGS:</u> v THERE IS NO SPECIFIC TREATMENT. JUST SYMPTOMATIC. <u>ENVIRONMENT:</u> v INCINERATION AND BURIAL OF CORPSES WITHOUT RITUALS. v DISINFECTION: SODIUM HYPOCHLORITE 5 G/L AND FORMALDEHYDE 18.5 G/L.
CHIKUNGUNYA VIRUS	SINGLEvSTRAND RNA VIRUS	SEVERE PAIN IN JOINTS, SKIN LESIONS, FEVER. NAUSEA AND VOMITING IN CHILDREN. IT MAY RESULT IN HAEMORRHAGIC SYNDROME AND ENCEPHALITIS.	2 DAYS	LOWER THAN 1%	CUTANEOUS (BITES)	HUMAN BEINGS, MONKEYS	BITES BY INFECTED MOSQUITOES OF THE AEDES AEGYPTI SPECIES (VECTOR).	<u>HUMAN BEINGS:</u> v EXPERIMENTAL VACCINE EXISTS. v REPELLENTS. <u>ENVIRONMENT:</u> v CONTROL OF MOSQUITO POPULATIONS.	v ELISA	<u>ENVIRONMENT:</u> v EXTERMINATION OF MOSQUITO POPULATIONS.
LYMPHOCYTIC CHORIOMENINv GITIS VIRUS	DOUBLEvSTRAND RNA VIRUS	FEVER, MUSCULAR PAIN, HEADACHE, PHOTOPHOBIA, NAUSEA, VOMITING. AFFECTS: SALIVATORY GLANDS AND TESTICLES. IN SEVERE CASES (10%) NEUROLOGICAL INVOLVEMENT.	VARIABLE	LOWER THAN 1%	RESPIRATORY	HUMAN BEINGS	v AIR: INHALATION OF AEROSOLIZED EXCRETA OF INFECTED RODENTS OF THE FOLLOWING SPECIES: MUS DOMESTICUS AND MUS MUSCULUS.	<u>HUMAN BEINGS:</u> v NO VACCINE. <u>ENVIRONMENT:</u> v ENVIRONMENTAL HYGIENE. v CONTROL OF RODENT POPULATIONS.	v ELISA	<u>HUMAN BEINGS:</u> v THERE IS NO SPECIFIC TREATMENT. JUST SYMPTOMATIC. <u>ENVIRONMENT:</u> v EXTERMINATION OF RODENT POPULATIONS.
MONKEY POX VIRUS	DOUBLEvSTRAND DNA VIRUS	GENERALIZED RASH. IT AFFECTS THE UPPER RESPIRATORY TRACT. INGUINAL AND CERVICAL LYMPH NODES INCREASE IN SIZE. GANGLIAN INFARCT.	4v17 DAYS	VARIABLE	RESPIRATORY AND CUTANEOUS (LESIONS)	HUMAN BEINGS, MONKEYS	v CONTACT WITH INFECTED SQUIRRELS. THROUGH SKIN LESIONS AND MUCOUS MEMBRANES. v AIR: POSSIBLE PERSONvTOvPERSON TRANSMISSION. RESERVOIR: SQUIRRELS.	<u>HUMAN BEINGS:</u> v VACCINE (FOR RISK POPULATION). v MASKS. <u>ENVIRONMENT:</u> v CONTROL OF SQUIRREL POPULATIONS.	v ELISA v PCR	<u>ENVIRONMENT:</u> v EXTERMINATION OF SQUIRREL POPULATIONS.

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RIFT VALLEY FEVER VIRUS	SINGLEvSTRAND RNA VIRUS. SIZE: 23v35 µm.	FEVER, HEADACHE, MUSCULAR AND EPIGASTRIC PAIN, PHOTOPHOBIA, ANOREXIA. IN SEVERE CASES: HEPATIC NECROSIS, HAEMORRHAGIC SYNDROME (PETECHIAE) AND MENINGEOv ENCEPHALITIS.	1v6 DAYS	LOWER THAN 1%	CUTANEOUS (WOUNDS, BITES). DIGESTIVE AND RESPIRATORY	HUMAN BEINGS, CATTLE, SHEEP AND GOATS. CATS, RATS, MICE AND MONKEYS.	v BITES BY INFECTED MOSQUITOES OF THE FOLLOWING SPECIES: AEDES, CULEX, MANSONIA, ANOPHELES AND ERETMAPODITES. v CONTACT WITH FRESHLY CONTAMINATED BLOOD. v AIR: INHALATION OF AEROSOLIZED PARTICLES AND CONTAMINATED MATERIAL FROM INFECTED ANIMALS. v INGESTION OF CONTAMINATED MEAT. v POSSIBLE PERSONvTOv PERSON TRANSMISSION.	<u>HUMAN BEINGS:</u> v VACCINE (FOR RISK POPULATION). v PROTECTION EQUIPMENTS FOR HEALTH PERSONNEL. v REPELLENTS. <u>ENVIRONMENT:</u> v VACCINE FOR ANIMALS. v ENVIRONMENTAL HYGIENE. v CONTROL OF MOSQUITO POPULATIONS. v ANIMAL HEALTH AND HYGIENE. v ISOLATION OF CONTAMINATED ANIMALS.	<u>HUMAN BEINGS:</u> v ELISA v PCR v ISOLATION AND EXAMINATION UNDER TEM. <u>ENVIRONMENT:</u> v EXTERMINATION OF MOSQUITO POPULATIONS.
VENEZUELAN EQUINE ENCEPHALITIS VIRUS	SINGLEvSTRAND RNA VIRUS. THERE ARE 11 DIFFERENT STRAINS. IT IS PRESERVED AT v52°C	FEVER, HEADACHE, MUSCULAR PAIN, NAUSEA, VOMITING, EXHAUSTION, PHOTOPHOBIA, CONVULSIONS. FROM 0.5 TO 4% OF PATIENTS PRESENT NEUROLOGICAL SYMPTOMS.	1v5 DAYS	5v60%	CUTANEOUS (BITES) AND RESPIRATORY	HUMAN BEINGS, HORSES AND MULES	v BITES BY INFECTED CULEX TYPE MOSQUITO (VECTOR). v ACCIDENTAL INHALATION IN THE LABORATORY. RESERVOIR: BIRDS.	<u>HUMAN BEINGS:</u> v VACCINE. v PROTECTION EQUIPMENT FOR HEALTH AND LABORATORY PERSONNEL. <u>ENVIRONMENT:</u> v CONTROL OF MOSQUITO POPULATIONS. v ENVIRONMENTAL HYGIENE.	<u>HUMAN BEINGS:</u> v ELISA v PCR v ISOLATION AND EXAMINATION UNDER TEM. <u>ENVIRONMENT:</u> v EXTERMINATION OF MOSQUITO POPULATIONS.
SPRINGv SUMMER RUSSIAN ENCEPHALITIS VIRUS	SINGLEvSTRAND RNA VIRUS. IT IS PRESERVED AT v52°C.	FEVER, HEADACHE, DIZZINESS, STUPOR, CONVULSIONS, MENINGOENCEPHAv LITIS. FLUvLIKE SYNDROME.	3v7 DAYS	5v60%	DIGESTIVE AND RESPIRATORY	HUMAN BEINGS, GOATS	v AIR: INHALATION OF CONTAMINATED AEROSOLIZED PARTICLES. v INGESTION OF CONTAMINATED NONv PASTEURIZED MILK.	<u>HUMAN BEINGS:</u> v VACCINE. <u>ENVIRONMENT:</u> v PROPER PREPARATION OF MEALS. v ENVIRONMENTAL HYGIENE. v CONTROL OF GOATS.	<u>HUMAN BEINGS:</u> v ELISA v PCR v ISOLATION AND EXAMINATION UNDER TEM. <u>ENVIRONMENT:</u> v DISINFECTION: INACTIVATED AT 78°C FOR 10': WITH FORMALIN 1% AND PHENOL 1% FOR 10 DAYS.
WESTERN EQUINE ENCEPHALITIS VIRUS	SINGLEvSTRAND RNA VIRUS. PRESERVED AT v52°C. RESISTANT TO CHLOROFORM 0.2%, PHENOL 1% AND	FEVER, HEADACHE, NAUSEA, VOMITING, MUSCULAR AND ABDOMINAL PAIN, DELIRIUM, DROWSINESS,	VARIABLE	5v60%	CUTANEOUS (BITES), PROBABLY RESPIRATORY	HUMAN BEINGS, BIRDS. MOST SEVERE CASES OBSERVED IN NEUROLOGv	v BITES BY INFECTED MOSQUITOES OF CULEX TARSALIS AND AEDES AEGYPTI SPECIES (VECTORS). v AIR: ACCIDENTAL INHALATION IN THE	<u>HUMAN BEINGS:</u> v VACCINE. v PROTECTION EQUIPMENT FOR HEALTH AND LABORATORY PERSONNEL.	<u>HUMAN BEINGS:</u> v ELISA v PCR v ISOLATION AND EXAMINATION UNDER TEM. <u>ENVIRONMENT:</u> v EXTERMINATION OF

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	MERCURIC CHLORIDE 0.05%. ALSO RESISTANT TO HEAT OF 72°C FOR 10'.	CONVULSIONS, STUPOR, DIZZINESS, COMA.				ICALLY IMMATURE INDIVIDUALS	LABORATORY. RESERVOIR: BIRDS.	<u>ENVIRONMENT:</u> v VACCINE FOR ANIMALS. v SANITARY CONTROL OF HORSES AND MULES. v CONTROL OF MOSQUITO POPULATIONS. v ENVIRONMENTAL HYGIENE.		MOSQUITO POPULATIONS.
MACHUPO VIRUS (BOLIVIAN HAEMORRHAGI C FEVER)	DOUBLEvSTRAND RNA VIRUS.	FEVER, ABDOMINAL PAIN, HEADACHE, HAEMORRHAGIC SYNDROME.	VARIABLE	25%	RESPIRATORY	HUMAN BEINGS	AIR: INHALATION OF AEROSOLIZED EXCRETA OF INFECTED RODENTS OF THE CALOMYS CALLOSUS SPECIES.	<u>HUMAN BEINGS:</u> v NO VACCINE. <u>ENVIRONMENT:</u> v ENVIRONMENTAL HYGIENE. v CONTROL OF RODENT POPULATIONS.	v ELISA	<u>HUMAN BEINGS:</u> v THERE IS NO SPECIFIC TREATMENT. JUST SUPPORTIVE. <u>ENVIRONMENT:</u> v EXTERMINATION OF RODENT POPULATIONS.
JAPANESE ENCEPHALITIS VIRUS	SINGLEvSTRAND RNA VIRUS. IT IS PRESERVED AT v52°C.	FEVER, HEADACHE, DIZZINESS, STUPOR, CONVULSIONS WITH NEUROLOGICAL INVOLVEMENT. STIFFNESS AND PARALYSIS OF UPPER LIMBS.	6v16 DAYS	10v70%	CUTANEOUS (BITES), PROBABLY RESPIRATORY	HUMAN BEINGS, HORSES AND MULES	v BITES BY INFECTED MOSQUITO OF CULEX TRITAEINORHYNCHUS SPECIES (VECTOR). v AIR: ACCIDENTAL INHALATION IN THE LABORATORY.	<u>HUMAN BEINGS:</u> v VACCINE. v PROTECTION EQUIPMENT FOR PERSONNEL. <u>ENVIRONMENT:</u> v CONTROL OF MOSQUITO POPULATIONS.	v ELISA	<u>HUMAN BEINGS:</u> v THERE IS NO SPECIFIC TREATMENT. JUST SUPPORTIVE. <u>ENVIRONMENT:</u> v DISINFECTION: INACTIVATED AT 74°C FOR 30'. v EXTERMINATION OF MOSQUITO POPULATIONS.

BIOLOGICAL AGENTS: TOXINS

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AGENT	CHARACTERISTICS OF THE AGENT	NATURAL SOURCE	GROWTH, DEVELOPMENT AND/OR ACCUMULATION CONDITIONS	SYMPTOMS	AFFECTED ORGANISMS	ABSORPTION
BOTULINUM TOXIN	EXOTOXIN POLYPEPTIDE OF HIGH MOLECULAR WEIGHT. SEVEN SUBTYPES WERE IDENTIFIED A (ALPHA), B (BETA), C, D, E, F AND G. BLOCKS NEUROTRANSMISSION INACTIVATED AT 80°C FOR 10 MINUTES.	CLOSTRIDIUM BOTULINUM (BACTERIUM)	PRODUCED BY BACTERIA DEVELOPED IN AN ANAEROBIC ENVIRONMENT: GENERALLY IMPROPER FOOD STORAGE CONDITIONS AND IN THE GUT. POISONING OCCURS BY EATING FOOD CONTAMINATED WITH THIS BACTERIUM AND BOTULINUM TOXIN.	FLACCID PARALYSIS: DROOPING EYELIDS, DRY MOUTH AND THROAT, DISTURBED SPEECH, SWALLOWING, BLURRED VISION AND DIPLOPIA.	HUMAN BEINGS, MAMMALS AND BIRDS	DIGESTIVE
AFLATOXINS	DERIVATIVES OF BISFURANOCOUMARINS. THERE ARE FOUR TYPES: B1, G1, B2 AND G2. CARCINOGENIC SUBSTANCE.	ASPERGILLUS FLAVUS, A. PARASITICUS AND A. OSTIANUS (FUNGI)	PRODUCED BY THE FUNGUS (WHICH GROWS IN PEANUTS, MAIZE, WHEAT AND COCONUT FRUIT, UNDER DEFICIENT STORAGE CONDITIONS) AND PASSES THROUGH THE HYPHAE TO THE ADJACENT SUBSTRATUM. THE OPTIMAL GROWTH CONDITIONS ARE: TEMPERATURE: 17v20°C CO ₂ : 20v40% HUMIDITY: 86v92% O ₂ : MAXIMUM 5% POISONING OCCURS BY EATING FOOD CONTAMINATED WITH THIS TOXIN.	DEGENERATIVE LIVER DISEASES (CIRRHOSIS AND CANCER). AFFECTS KIDNEYS SLIGHTLY.	HUMAN BEINGS, MAMMALS, FISHES AND BIRDS	DIGESTIVE AND RESPIRATORY
RICIN	MACROPROTEIN FORMED BY MANY POLIPEPTIDES JOINED BY DISULPHIDE BRIDGES. INHIBITS PROTEIN SYNTHESIS. HEMOAGGLUTINANT.	RICINUS COMMUNIS (PLANT). THE TOXIN IS A NATURAL COMPONENT OF THE PLANT SEEDS.		BREATHING DIFFICULTY, NAUSEA AND MUSCULAR PAIN, OEDEMA OF LYMPHATIC GANGLIA, HEADACHE, DROWSINESS, CONVULSIONS, DIARRHOEA WITH BLEEDING, DEHYDRATION, CYANOSIS, LOW BLOOD PRESSURE AND LESION OF THE OPTICAL NERVE. DEATH BY CORONARY VASOSPASM.	HUMAN BEINGS AND ANIMALS	DIGESTIVE
SAXITOXIN	FAMILY OF CHEMICALLY RELATED NEUROTOXINS; NEOSAXITOXIN, SAXITOXIN, DECARBAMYL, SAXITOXIN, GONYATOXIN. IT IS A TETRAHIDROPURINE THAT ACTS BY BLOCKING THE SODIUM CHANNELS.	UNICELLULAR DINOFLAGELLATE ALGAE (COMPONENTS OF THE MARINE PLANKTON): GONYAULAX SP. (ALEXANDRIUM SP.), PYRODINIUM BAHAMENSE, GYMNODINIUM CATENATUM. THE SEASONAL FLORESCENCE OF THESE ALGAE CAUSES A RED TIDES.	THE BIVALVE MOLLUSCS FILTER SEA WATER IN THEIR FEEDING PROCESS, CONCENTRATING ALGAE (PRODUCING SAXITOXIN) IN THEIR BRANCHIA. POISONING OCCURS BY EATING CONTAMINATED MOLLUSCS.	NAUSEA, VOMITING, RESPIRATORY PARALYSIS.	HUMAN BEINGS	DIGESTIVE
CONOTOXINS	MACROPROTEIN FORMED BY TWO SMALL PEPTIDES LINKED BY DISULPHIDE BRIDGES. THERE ARE DIFFERENT TYPES	MARINE SNAILS OF THE CONUS SPECIES. THE TOXIN IS A SUBSTANCE PRODUCED INTERNALLY BY THE		INTENSE PAIN FOLLOWED BY NUMBNESS IN THE AFFECTED AREA, AND EXPANDING TO THE REST OF THE BODY.	HUMAN BEINGS, FISHES, MOLLUSCS AND MARINE WORMS	CUTANEOUS

AGENT	CHARACTERISTICS OF THE AGENT	NATURAL SOURCE	GROWTH, DEVELOPMENT AND/OR ACCUMULATION CONDITIONS	SYMPTOMS	AFFECTED ORGANISMS	ABSORPTION
	OF CONOTOXINS ALPHA, MU, AND OMEGA CONOTOXINS, DEPENDING ON THE TYPE THEY INHIBIT. RECEPTORS OF ACETYLCHOLINE OR BLOCK SODIUM CHANNELS (MUSCLES) AND CALCIUM CHANNELS (NEURONES).	SNAIL'S POISON GLAND TO PARALYSE ITS PREY.		IN SERIOUS CASES BLURRED VISION, PARALYSIS OF VOLUNTARY MUSCLES, CYANOSIS AND LOSS OF CONSCIOUSNESS ARE ADDED.		
SHIGA TOXIN	INHIBITS PROTEIN SYNTHESIS, PRODUCES CYTO. ENTERO AND NEUROTOXICITY.	SHIGELLA DYSENTERIAE TYPE I (BACTERIUM)	THE TOXIN IS RELEASED BY THE BACTERIUM INTO THE GUT, AFTER THE MICROORGANISMS HAVE INVADDED INTESTINAL MUCOUS CELLS. THE INFECTION IS PRODUCED BY THE INGESTION OF FOOD CONTAMINATED WITH THIS BACTERIUM AND THE SHIGA TOXIN.	FEVER, DIARRHOEA, VOMITING, BLOODY AND PURULENT FAECES.	HUMAN BEINGS AND FISHES	DIGESTIVE
STAPHYLOCOCCUS AUREUS TOXIN	DIFFERENT TYPES OF TOXINS WERE IDENTIFIED: ALPHA, BETA, GAMMA, DELTA, LEUCOCIDIN, ENTEROTOXINS (6 DIFFERENT TYPES), A AND B EXFOLIATIVE TOXINS. IT IS VERY RESISTANT TO HEAT, REFRIGERATION AND FREEZING. THE TOXIN ACTS SPECIFICALLY ON THE INTESTINAL MUCOUS MEMBRANE CELLS.	STAPHYLOCOCCUS AUREUS (BACTERIUM)	THE TOXIN IS PRODUCED BY BACTERIA DEVELOPED IN IMPROPERLY HANDLED FOOD (PREFERABLY WITH HIGH PROTEIN, SALT AND/OR SUGAR CONTENT). POISONING OCCURS BY EATING FOOD CONTAMINATED WITH THIS TOXIN.	FEVER, HEADACHE, NAUSEA, VOMITING, DIARRHOEA AND IN SEVERE CASES PULMONARY OEDEMA. THE TOXIN INTERACTS WITH THE IMMUNE SYSTEM OF THE VICTIM.	HUMAN BEINGS	DIGESTIVE
TETRODOTOXIN	NONPROTEINIC TOXIN: OCTAHYDRO-12-HYDROXY-2-METHYL-2-IMINO-5,9) ACID. BLOCKS THE SODIUM CHANNELS OF CELLS.	SEVERAL FAMILIES OF OSTEICHTHYES FISHES (CANTHIGASTERIDAE, DIODONTIDAE, MOLIDAE, TETRAODONTIDAE) SPECIFICALLY THE FUGU OR GLOBE FISH. IT IS ALSO FOUND IN SOME CRAB, MOLLUSC, WORM, ALGAE, RODENT AND TOAD SPECIES. ACCORDING TO THE LATEST RESEARCH THE WIDE DISTRIBUTION OF THE TOXIN MAY BE THE RESULT OF A SYMBIOTIC RELATIONSHIP BETWEEN THE PRODUCING BACTERIA AND THE ABOVEMENTIONED ORGANISMS.		MUSCULAR RELAXATION, HYPOTENSION, ARRHYTHMIAS, RESPIRATORY FAILURE, COMA AND DEATH.	HUMAN BEINGS	DIGESTIVE
MICROCYSTIN	HEPTACYCLIC POLYPEPTIDE.	CYANOBACTERIA	THE ALGAE ACCUMULATE IN THE	NAUSEA, DIARRHOEA, MOUTH	HUMAN BEINGS,	DIGESTIVE,

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AGENT	CHARACTERISTICS OF THE AGENT	NATURAL SOURCE	GROWTH, DEVELOPMENT AND/OR ACCUMULATION CONDITIONS	SYMPTOMS	AFFECTED ORGANISMS	ABSORPTION
	TWO TYPES WERE IDENTIFIED ACCORDING TO THEIR EFFECTS: NEURO AND HEPATOvTOXIC. BLOCKS PROTEIN PHOSPHATASES, INHIBITING GROWTH AND CELLULAR DIFFERENTIATIONS, STABLE TOXIN: IT CAN REMAIN IN WATER FOR SEVERAL WEEKS.	(BLUEvGREEN ALGAE), OF THE MICROCYSTIS SPECIES, SPECIFICALLY M. AERUGINOSA. OTHER SPECIES ALSO PRODUCE THIS TOXIN, BUT M. AERUGINOSA IS THE MOST NOTABLE.	SURFACE LAYER AND ON THE SHORES OF BODIES OF FRESH WATER. POISONING OCCURS BY DRINKING WATER CONTAMINATED WITH THESE ALGAE.	ULCERS, CONTACT DERMATITIS, HEPATIC CELL DAMAGE. IT CAN CAUSE HEPATIC TUMORS UNDER CONDITIONS YET TO BE DETERMINED.	HIGHER MAMMALS AND BIRDS	BWC/AD HOC GROUP/WP. 387 page 10 RESPIRATORY AND CUTANEOUS (LESIONS)
CHOLERA TOXIN	THE TOXIN IS A PROTEIN THAT BLOCKS SODIUM CHANNELS. IT ACTS ON THE ENZYME ADENYLATE CYCLASE IN THE INTESTINAL CELLS, INCREASING WATER, SODIUM, POTASSIUM, CHLORINE AND BICARBONATE SECRETION. HALOPHILOUS BACTERIUM.	VIBRIO CHOLERAEE (BACTERIUM) HAS A PLASMID WHICH MAKES IT PATHOGENIC.	THE TOXIN IS RELEASED INTO THE GUT BY THE BACTERIA. AFTER ITS ADHESION TO THE INTESTINAL MUCUS. THE INFECTION OCCURS BY THE INGESTION OF FOOD OR WATER CONTAMINATED WITH THIS BACTERIUM AND THE TOXIN.	SERIOUS LOSS OF LIQUIDS AND ELECTROLYTES, DIARRHOEA, VOMITING, SEVERE WEAKNESS AND SHOCK.	HUMAN BEINGS AND ANIMALS	DIGESTIVE
TETANUS TOXIN (TETANOv SPASMIN)	DOUBLE vCHAIN POLYPEPTIDE JOINED BY A DISULPHIDE BRIDGE. THIS EXOTOXIN BLOCKS THE SYNAPSE WHICH INHIBITS THE CENTRAL NERVOUS SYSTEM. HEATvLABILE CYTOPLASMIC PROTEIN. ACTS AT NEUROvMUSCULAR JUNCTIONS TO INHIBIT THE RELEASE OF ACETYLCHOLINE AND BLOCKS INHIBITORY IMPULSES TO THE MOTOR NERVES. SENSITIVE TO FORMALDEHYDE.	CLOSTRIDIUM TETANI (BACTERIUM)	THE TOXIN IS PRODUCED BY BACTERIA IN THE SOIL OR IN THE INTESTINE IN ANAEROBIC CONDITIONS. INFECTION OCCURS THROUGH INGESTION OF OR CONTACT WITH CONTAMINATED ELEMENTS.	THERE ARE TWO CLINICAL FORMS: <u>GENERAL</u> : BACK, NECK AND THIGH PAIN AND STIFFNESS. DIFFICULTY IN OPENING THE MOUTH. REFLEX SPASMS, PERIPHERAL VASOCONSTRICTION, TACHYCARDIA AND PROFUSE SWEATING, PNEUMONIA, VENOUS THROMBOSIS, ASPHYXIA AND BREATHING AND HEART DIFFICULTIES. <u>LOCAL</u> : MUSCULAR STIFFNESS AND SPASMS IN THE AREAS CLOSE TO THE WOUND.	HUMAN BEINGS AND HORSES AND MULES	CUTANEOUS (LESIONS) AND DIGESTIVE
ABRIN	POLYPEPTIDE (TWO CHAINS JOINED BY A DISULPHIDE BRIDGE), 50% SIMILAR TO THE RICIN TOXIN. INHIBITS PROTEIN SYNTHESIS. SHOWS SPECIFIC ANTIvCARCINOGENIC ACTIVITY, USED AS AN IMMUNOvTOXIN. HEAT RESISTANT: 60°C FOR 30 MINUTES. IT LOSES PART OF ITS TOXICITY AT 80°C FOR 30 MINUTES.	ABRUS PRECATORIUS (ROSARY PEA) OR A. PRECATUS. THIS TOXIN IS A NATURAL COMPONENT OF THESE PLANTS.		INTERNAL BLEEDING, INTESTINAL UPSET AND MUCOUS MEMBRANE IRRITATION.	HUMAN BEINGS	DIGESTIVE

AGENT	CHARACTERISTICS OF THE AGENT	NATURAL SOURCE	GROWTH, DEVELOPMENT AND/OR ACCUMULATION CONDITIONS	SYMPTOMS	AFFECTED ORGANISMS	ABSORPTION
VEROTOXIN (OR SHIGA _v -LIKE TOXIN1)	PROTEIN WITH ENTERO AND NEUROTOXICITY. INHIBITS PROTEIN SYNTHESIS.	E. COLI (BACTERIUM) OF THE STRAINS: O157:H7 (THE MOST WELL KNOWN) 026, 0111, 0121, AND 0145.	THE TOXIN IS RELEASED BY THE BACTERIA INTO THE GUT. INFECTION OCCURS BY EATING FOOD CONTAMINATED WITH THIS BACTERIUM AND WITH THE TOXIN.	WATERY DIARRHOEA, ABDOMINAL CRAMP, FEVER, NAUSEA AND VOMITING. IN SEVERE CASES HAEMOLYTIC UREMIC SYNDROME.	HUMAN BEINGS	DIGESTIVE

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BIOLOGICAL AGENTS: RICKETTSIAS

Classification and characteristics

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AGENT	DISEASE	CHARACTERISTIC S OF THE AGENT	SYMPTOMS	INCUBATION PERIOD	MORTALITY RATE	INFECTION ROUTE	AFFECTED ORGANISMS	SOURCE OF INFECTION v VECTOR	PROTECTION v PREVENTION	DETECTION	DECONTAMINATION v TREATMENT
RICKETTSIA BURNET II (COXIELLA BURNET II)	Q FEVER	GRAMvNEGATIVE. CAN SURVIVE ON SURFACE UP TO 60 DAYS. RESISTANT TO TEMPERATURE VARIATION (v521 C TO 401 C), TO DESICCATING CONDITIONS AND TO PHENOL 0.5%.	FEVER, HEADACHE, MUSCULAR AND ARTICULAR PAIN, LIVER AND SPLEEN DILATATION.	10v25 DAYS	LOW	RESPIRATORY, DIGESTIVE AND CUTANEOUS (BITES)	MAMMALS	v AIR: AEROv SOLIZED PARTv ICLES FROM FAECES, WOOL AND/OR EXCRETIONS. v EATING CONTAMINATED FOOD v TICK (VECTOR) BITES: TRANSv MISSION BETWEEN MAMMALS.	<u>HUMAN BEINGS:</u> v VACCINE. <u>ENVIRONMENT:</u> v SANITARY CONTROL OF ANIMALS. v ENVIRONMENTAL HYGIENE. v CONTROL OF TICK POPULATIONS	v ELISA. v MICROAGGLUv TINATION. v PCR 1/	<u>HUMAN BEINGS:</u> v TREATMENT WITH ANTIBIOTICS. <u>ENVIRONMENT:</u> v DISINFECTION WITH FORMALIN 0.5%. v EXTERMINATION OF TICK POPULATIONS.
RICKETTSIA QUINTANA (ROCHA LIMAEA QUINTANA, BARTONv ELLA QUINTANA)	BARTONv ELLOSIS, TRENCH FEVER	GRAMvNEGATIVE AEROBE	HIGH FEVER WITH PERIODS OF IMPROVEMENT AND SUCCESSIVE RELAPSES, HEADACHE, MUSCULAR AND ARTICULAR PAIN.	3 DAYS TO 5 WEEKS	NOT FATAL	CUTANEOUS (BITES, LESIONS) BEINGS AND RESPIRATORY	HUMAN	v LOUSE (VECTOR) BITES. v AIR: INHALv ATION OF CONTAMINATED PARTICLES. v CONTACT WITH CONTAMv INATED MATERIALS.	<u>HUMAN BEINGS:</u> v THERE IS NO VACCINE. <u>ENVIRONMENT:</u> v ENVIRONMENTAL HYGIENE. v CONTROL OF LOUSE POPULATIONS.	v PCR	<u>HUMAN BEINGS:</u> v TREATMENT WITH ANTIBIOTICS. <u>ENVIRONMENT:</u> v EXTERMINATION OF LOUSE POPULATIONS.
RICKETTSIA PROWAZEKI I	EPIDERMIC TYPHUS, ENDEMIC TYPHUS.	GRAMvNEGATIVE AEROBE	SHIVERING, FEVER, EXANTHEMA. MUSCULAR PAIN, HEADACHE, COUGH.	6v15 DAYS	10v80%	CUTANEOUS (BITES, LESIONS) BEINGS AND RESPIRATORY	HUMAN	v LOUSE (VECTOR) BITES. v AIR: INHALv ATION OF CONTAMINATED PARTICLES. v CONTACT WITH CONTAMv INATED MATERIALS	<u>HUMAN BEINGS:</u> v VACCINE. <u>ENVIRONMENT:</u> v ENVIRONMENTAL HYGIENE. v CONTROL OF LOUSE POPULATIONS	v WEILvFELIX REACTION	<u>HUMAN BEINGS:</u> v TREATMENT WITH ANTIBIOTICS. <u>ENVIRONMENT:</u> v EXTERMINATION OF LOUSE POPULATIONS. v DISINFECTION WITH FORMALIN 0.01%, PHENOL 0.5% AND AT 621 C OVER 15 TO 30 MINUTES
RICKETTSIA RICKETTSII	Q FEVER, ROCKY MOUNTAIN	GRAMvNEGATIVE. AEROBE.	FEVER, PHOTOPHOBIA, MUSCULAR PAIN,	2v12 DAYS	10v60%	CUTANEOUS (BITES, LESIONS) BEINGS	HUMAN	v TICK (VECTOR) BITES. v CONTACT	<u>HUMAN BEINGS:</u> v VACCINE. <u>ENVIRONMENT:</u>	v WEILvFELIX REACTION	<u>HUMAN BEINGS:</u> v TREATMENT WITH ANTIBIOTICS.

AGENT	DISEASE	CHARACTERISTIC S OF THE AGENT	SYMPTOMS	INCUBATION PERIOD	MORTALITY RATE	INFECTION ROUTE	AFFECTED ORGANISMS	SOURCE OF INFECTION v VECTOR	PROTECTION v PREVENTION	DETECTION	DECONTAMINATION v TREATMENT
	FEVER, SPOTTED FEVER, SAO PAULO FEVER (IN SOUTH AMERICA)		CUTANEOUS RASH, GENERAL WEAKNESS					WITH FAECES AND/OR CONTAMINATED TISSUE. RESERVOIR: PROBABLY RODENTS IN THE WILD.	v ENVIRONMENTAL HYGIENE v CONTROL OF TICK POPULATIONS. v CONTROL OF RODENT POPULATIONS.		<u>ENVIRONMENT:</u> v EXTERMINATION OF TICK POPULATIONS. v DISINFECTION WITH FORMALIN 0.01%, PHENOL 0.5% TEMPERATURE AT 621 FOR 10 MINUTES AND BY DISINFECTING OVER 10 HOURS.

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1/ POLYMERASE CHAIN REACTION, USED TO IDENTIFY FRAGMENTS OF GENETIC MATERIAL.

BIOLOGICAL AGENTS: BACTERIA

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CLASSIFICATION AND CHARACTERISTICS

CHARACTERISTIC S				SOURCE OF							
AGENT	DISEASE	OF THE AGENT	SYMPTOMS	INCUBATION PERIOD	MORTALITY RATE	INFECTION ROUTE	AFFECTED ORGANISMS	INFECTION VECTOR	PREVENTION v PROTECTION	DETECTION	DECONTAMINATION v TREATMENT
BACILLUS ANTHRACIS	ANTHRAX, MALIGNANT CARBUNCLE, MALIGNANT PUSTULE	GRAMv POSITIVE, AEROBE. FORMS HIGHv RESISTANCE SPORES	HEADACHE, SEVERE FEVER, VESICULAR LESIONS, COUGH, FATIGUE, RESPIRATORY FAILURE, COMA AND DEATH (MORE SERIOUS AND RAPID IN THE CASE OF INHALATION).	2-8 DAYS	UNDER 25% IF CUTANEOUS, CUTANEOUS; ALMOST 100% IF RESPIRATORY; 100% IF DIGESTIVE.	CUTANEOUS, RESPIRATORY AND DIGESTIVE	HUMAN BEINGS, CATTLE, GOATS, HORSES, MULES AND SHEEP	AIR, SOIL, WATER AND CONTAMINATED FOOD	HUMAN BEINGS: v VACCINE (TO MILITARY AND RISK POPULATIONS) v SPECIAL GLOVES AND CLOTHES	ANALYSIS OF EXUDATE MATTER (CUTANEOUS FORM) OR BLOOD CULTURE	HUMAN BEINGS: v TREATMENT WITH ANTIBIOTICS (CIPROFLOXACIN) AND IMMUNE SERUM. ENVIRONMENT: v INCINERATION AND BURIAL OF CORPSES OF INFECTED ANIMALS v DISINFECTION OF ITEMS AND ZONES WITH FORMv ALDEHYDE, ETHYLENE OXIDE AND BLEACH v THE SPORE IS DESTROYED AT 159EC FOR 1 HOUR OR WHEN THE CONTAMINATED MATERIAL IS BOILED 30 MINUTES.
CLOSTRIDIUM BOTULINUM	BOTULISM	GRAMv POSITIVE, STRICTLY ANAEROBE. PRODUCES AN EXOTOXIN. FORMS HIGHv RESISTANCE SPORES.	LOSS OF VOICE, DIPLOPIA, TONGUE PARALYSIS, EYELID DROOPING, CARDIOv RESPIRATORY FAILURE, FLACCID PARALYSIS. ACTS ON THE NERVE ENDINGS, INHIBITING THE RELEASE OF	1-8 DAYS	VERY HIGH	DIGESTIVE AND RESPIRATORY	HUMAN BEINGS AND LOWER VERTEBRATES	SOIL, WATER, AIR AND CONTAMINATED FOOD	HUMAN BEINGS: - BLOOD TEST (TOXIN) v NO VACCINE ENVIRONMENT: - FAECES TEST (BACTERIUM) v ENVIRONv MENTAL HYGIENE v PROPER COOKv ING OF FOOD	- BLOOD TEST (TOXIN) - FAECES TEST (BACTERIUM)	HUMAN BEINGS: v TREATMENT WITH ANTIBOTULINIC SERUM ENVIRONMENT: v ELIMINATION OF CONTAMINATED FOOD

CHARACTERISTIC S				INCUBATION PERIOD	MORTALITY RATE	INFECTION ROUTE	AFFECTED ORGANISMS	SOURCE OF INFECTION	PREVENTION v PROTECTION	DETECTION	DECONTAMINATION v TREATMENT
AGENT	DISEASE	OF THE AGENT	SYMPTOMS					v VECTOR			
CLOSTRIDIUM PERFRINGENS	GAS GANGRENE	ACETYL CHOLINE.		8 HOURS TO 7 DAYS	HIGH	DIGESTIVE AND CUTANEOUS	HUMAN BEINGS AND ANIMALS	FAECES, SOIL AND CONTAMINATED FOOD	<u>HUMAN BEINGS:</u>	vBLOOD TEST (TOXIN)	<u>HUMAN BEINGS:</u>
		GRAMvPOSITIVE, STRICTLY ANAEROBE.	DIGESTIVE COMPLAINTS, GAS								v REHYDRATION OF
		PRODUCES AN EXOTOXIN. FORMS HIGHvRESISTANCE SPORES.	GANGRENE, INTESTINAL AND MUSCULAR NECROSIS, BLOOD PRESSURE DROP AND DEATH.								PATIENTS
											<u>ENVIRONMENT:</u>
											ELIMINATION OF
CLOSTRIDIUM TETANI	TETANUS	GRAMvPOSITIVE, ANAEROBE. FORMS HIGHv RESISTANCE SPORES.	INTENSE PAIN IN THE AFFECTED AREA. MUSCULAR STIFFNESS IN GENERAL, TRISMUS, RESPIRATORY FAILURE (RIGID PARALYSIS).	7-14 DAYS	HIGH	CUTANEOUS (DEEP WOUNDS)	MAMMALS	CONTAMINATED SOIL	<u>HUMAN BEINGS:</u> v VACCINE	v CLINICAL	<u>HUMAN BEINGS:</u> v TREATMENT WITH ANTIBIOTICS, GAMMA GLOBULIN, MUSCLE RELAXANTS, MECHANICAL RESPIRATORY AID
FRANCISELLA TULARENSIS (PASTURELLA TULARENSIS)	RABBIT FEVER, DEER FLY FEVER, TULARAEMIA	GRAMvNEGATIVE. NONvSPORULATING	SEVERAL FORMS HAVE BEEN IDENTIFIED: v ULCEROv GLANDULAR: SKIN LESIONS AND OEDEMAS IN REGIONAL GANGLIA v OCULAR v PULMONARY (MOST SERIOUS FORM)	2-10 DAYS	30-40%	CUTANEOUS (BITES, LESIONS). DIGESTIVE AND RESPIRATORY	HUMAN BEINGS AND LOWER VERTEBRATES	v AIR, FOOD AND WATER CONTAMINATED WITH EXCRETIONS OF INFECTED LOWER VERTEBRATES v BITES BY INFECTED INVERTEBRATES SUCH AS MOSQUITOES AND HORSEFLIES (VECTORS)	<u>HUMAN BEINGS:</u> v VACCINE	v AGGLUTINATION TEST	<u>HUMAN BEINGS:</u> v TREATMENT WITH ANTIBIOTICS (STREPTOMYCIN)
											<u>ENVIRONMENT:</u> v INCINERATION OF DEAD RODENTS AND ANIMALS

CHARACTERISTIC S											SOURCE OF		BWC/AD HOC GROU
AGENT	DISEASE	OF THE AGENT	SYMPTOMS	INCUBATION PERIOD	MORTALITY RATE	INFECTION ROUTE	AFFECTED ORGANISMS	INFECTION v VECTOR	PREVENTION v PROTECTION	DETECTION	DECONTAMINATION v TREATMENT	page 11	
YERSINIA PESTIS (PASTEUR-ELLA PESTIS)	BLACK DEATH, PLAGUE, BUBONIC PLAGUE	GRAMvNEGATIVE, AEROBE. NONvSPORULATING	IN HUMAN BEINGS PRESENTS THREE CLINICAL TYPES: BUBONIC, PNEUMONIC AND SEPTICAEMIC. THE MOST COMMON CHARACTERISTICS ARE: COUGH, FATIGUE, BREATHING DIFFICULTIES, HIGH FEVER, GANGLIAN INFARCT, PNEUMONIA, CYANOSIS, COMA, DEATH.	1-12 DAYS	90%	CUTANEOUS (BITES) AND RESPIRATORY	HUMAN BEINGS AND RODENTS	v AIR: INHALATION OF AEROSOLIZED EXCRETIONS FROM INFECTED RODENTS v BITES BY INFECTED RODENT FLEAS OF THE XENOPSYLLA CHEOPIS SPECIES (VECTOR) v CONTACT WITH CONTAMINATED MATTER	<u>HUMAN BEINGS:</u> v VACCINE <u>ENVIRONMENT:</u> CONTROL OF RODENT AND FLEA POPULATIONS	v PCR v MICROSCOPE EXAMINATION	<u>HUMAN BEINGS:</u> v TREATMENT WITH ANTIBIOTICS (STREPTOMYCIN AND TETRACYCLINE) <u>ENVIRONMENT:</u> v SENSITIVE TO LIGHT, HIGH TEMPERATURES (DRY HEAT) AND DISINFECTANTS (BLEACH) v EXTERMINATION OF FLEA AND RODENT POPULATIONS		
CHLAMYDIA PSITTACI 1/	PSITTACOSIS, ORNITHOSIS, PARROT FEVER	GRAMvNEGATIVE. IT SURVIVES ON SURFACE FROM 20 TO 30 DAYS, AND IN DRY FAECAL MATTER. NONvSPORULATING	HIGH FEVER, INTENSE HEADACHE, COUGH, CHEST PAIN, RESPIRATORY FAILURE, CYANOSIS, COMA AND DEATH.	7-15 DAYS	9-20%	CUTANEOUS (LESIONS) AND RESPIRATORY	HUMAN BEINGS AND BIRDS	v AIR: INHALATION OF SECRETIONS, FEATHERS AND/OR EXCREMENT FROM INFECTED BIRDS v CONTACT WITH CONTAMINATED MATTER v LOW INCIDENCE OF PERSONvTOv PERSON TRANSMISSION	<u>HUMAN BEINGS:</u> - ELISA v NO VACCINE <u>ENVIRONMENT:</u> v HYGIENE MEASURES IN BIRDvBREEDING FACILITIES	- ELISA	<u>ENVIRONMENT:</u> v INACTIVATED BY FORMALIN 0.1 %, PHENOL 0.5% FOR 24v36 HOURS AND CRESOL 2% v INCINERATION OR DISINFECTION OF CONTAMINATED MATTER		

CHARACTERISTIC S				SOURCE OF							
AGENT	DISEASE	OF THE AGENT	SYMPTOMS	INCUBATION PERIOD	MORTALITY RATE	INFECTION ROUTE	AFFECTED ORGANISMS	INFECTION VECTOR	PREVENTION v PROTECTION	DETECTION	DECONTAMINATION v TREATMENT
ESCHERICHIA COLI	INFECTIOUS DIARRHOEA STRAIN 0157:117	NONvSPORULATING, HIGH LEVEL OF SURVIVAL IN THE ENVIRONMENT (60 DAYS). SEVERAL STRAINS EXIST THAT CAUSE INTESTINAL DISORDERS.	SEVERE DIARRHOEA, ABDOMINAL PAIN, IN ACUTE CASES WITH INTESTINAL HAEMv HAEMv ORRHAGIC COLITIS	2-6 DAYS	NOT LETHAL	DIGESTIVE AND CUTANEOUS (WOUNDS)	HUMAN BEINGS AND CATTLE	FOOD, WATER AND OBJECTS CONTAMINATED WITH THE FAECES OF INFECTED ANIMALS	HUMAN BEINGS: NO VACCINE ENVIRONMENT: HYGIENE AND PROPER COOKING OF FOOD CONTROL OF CATTLE FOR HUMAN CONSUMPTION WASHING AND CLEANING OF PRODUCE FROM ORGANIC FARMS	- PCR STOOL CULTURE	ENVIRONMENT: INACTIVATION FOR IONIZED RADIATION AND HEAT AT 72EC WC/AD HOC GROUP age 17
SHIGELLA DYSENTERIAE	BACILLARY DYSENTERY	GRAMvNEGATIVE, AEROBE. NONvSPORULATING, REMAINS VIABLE IN WATER, ICE AND MUCOUS SECRETIONS FOR LONG PERIODS OF TIME.	HIGH FEVER, EPIGASTRIC PAIN, BLOODY DIARRHOEA.	1-2 DAYS	LOW	DIGESTIVE	HUMAN BEINGS	FOOD, WATER AND ITEMS CONTAMINATED WITH EXCRETIONS OF ILL HUMAN BEINGS. RESERVOIR: MONKEYS.	HUMAN BEINGS: NO VACCINE ENVIRONMENT: STRICT SANITARY MEASURES CONTROL OF FLY POPULATIONS (PROMOTE CONTAMINATION)	v STOOL CULTURE	HUMAN BEINGS: ANTIBIOTIC TREATMENT ENVIRONMENT: STERILIZATION WITH DISINFECTANTS AND VAPOUR v SENSITIVE TO SUN EXPOSURE
VIBRIO CHOLERAE	CHOLERA	GRAMvNEGATIVE, AEROBE. MOTILE, NONvSPORULATING	DIARRHOEA, VOMITING, WEAKNESS, MAJOR LOSS OF FLUIDS	6 HOURS TO 5 DAYS	3-30% OF PEOPLE UNDER TREATMENT. 50v80% OF PEOPLE NOT UNDER TREATMENT.	DIGESTIVE	HUMAN BEINGS	CONTAMINATED NONvCOOKED FOOD, WATER, OBJECTS (FAECES, VOMIT, ETC.)	HUMAN BEINGS: VACCINE PERSONAL HYGIENE ENVIRONMENT: PROPER COOKING OF FOOD ADDING BLEACH TO WATER	v OBSERVATION OF FAECES UNDER MICROSCOPE	HUMAN BEINGS: REHYDRATION OF PATIENT ENVIRONMENT: TREATMENT WITH HEAT, CHLORINE AND STANDARD DISINFECTION PRODUCTS

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AGENT	DISEASE	CHARACTERISTICS		INCUBATION PERIOD	MORTALITY RATE	INFECTION ROUTE	AFFECTED ORGANISMS	SOURCE OF INFECTION	PREVENTION v PROTECTION	DETECTION	BIOCONTAMINATION v TREATMENT
		OF THE AGENT	SYMPTOMS					v VECTOR	(PROMOTE CONTAMINATION)		
BRUCELLA SUI	BRUCELLA SUI	GRAMvNEGATIVE, AEROBE.	WEARINESS, FEVER, SHIVERING, PROFUSE NIGHT	1-3 WEEKS	3-6%	DIGESTIVE, RESPIRATORY,	ZOOONOSIS THAT OCCASIONv	CONTAMINATED CANNED MEAT, DAIRY	HUMAN BEINGS: - AGGLUTINATION TEST		HUMAN BEINGS: v TREATMENT WITH ANTIBIOTICS
BRUCELLA MELITENSIS	BRUCELLA MELITENSIS	ING. CAN REMAIN ALIVE IN WATER, SOIL AND NONv	SWEATING, WEAKNESS, REDUCTION OF WHITE BLOOD CELLS. THE INHALATORY FORM CAUSES MENINGITIS, PNEUMONIA AND ENDOCARDITIS.			CUTANEOUS (OCULAR AND CASUAL INOCULv	ALLY AFFECTS HUMAN BEINGS COMMON DISEASE OF GOATS, GUINEA PIGS, RABBITS, SHEEP, ETC.	PRODUCTS AND WATER	v CONTROL OF FOOD AND WATER FOR HUMAN CONSUMPTION v ISOLATION OF SICK ANIMALS		ENVIRONMENT: v STERILIZATION OF INFECTED MATERIAL USING TRADITIONAL METHODS (PASTEURIZATION)
BRUCELLA ABORTUS	BRUCELLA ABORTUS	PASTEURIZED DAIRY PRODUCTS. RESISTANT TO LOW TEMPERATURES.									
SALMONELLA TYPHI (SALMONELLA TYPHOSA)	SALMONELLA TYPHI (SALMONELLA TYPHOSA)	GRAMvNEGATIVE, AEROBE, NONvSPORULATING. REMAINS ALIVE FROM 2 TO 3 WEEKS IN WATER, MORE THAN 3 MONTHS IN SNOW OR ICE, AND 1 TO 2 MONTHS IN EXCREMENT.	CONSTANT FEVER, AFFECTS LYMPHATIC TISSUE, INTESTINE ULCERATION, SPLEEN ENLARGEMENT, DIARRHOEA, PINK SPOTS ON THE SKIN.	3-38 DAYS	0-10%	DIGESTIVE	HUMAN BEINGS	v MATERIAL, FOOD AND WATER CONTAMINATED WITH EXCRETIONS FROM SICK PERSONS. HUMAN BEINGS ACT AS A RESERVOIR DUE TO THE EXISTENCE OF CHRONIC CARRIERS.	HUMAN BEINGS: v VACCINE ENVIRONMENT: v PROPER COOKING OF FOOD v CONTROL OF WATER SUPPLY AND FINAL DISPOSAL OF SEWAGE	v CULTURE OF CONTAMINATED MATTER	HUMAN BEINGS: v TREATMENT WITH ANTIBIOTICS ENVIRONMENT: v PASTEURIZATION v INACTIVATION BY HEATING 73°C FOR 20', WITH PHENOL 5% OR MERCURY BICHLORIDE 1:500 FOR 5'
BURKHOLDERIA	GLANDERS	GRAMvNEGATIVE, AEROBE,	SHIVERING, FEVER, NAUSEA,	2-5 DAYS	50-70%	RESPIRATORY AND	HUMAN BEINGS,	v AIR: INHALATION OF	HUMAN BEINGS: v NO VACCINE	v COMPLEMENT FIXATION TEST	HUMAN BEINGS: v TREATMENT WITH

