

Appendix 5

Water- and sanitation-related diseases

1 . Environmental classification of water-related infections

Category	Infection	Pathogenic agent
1) Faecal–oral (water-borne or water-washed) a) Diarrhoeas and dysenteries	Amoebic dysentery Balantidiasis <i>Campylobacter</i> enteritis Cholera Cryptosporidiosis <i>E. coli</i> diarrhoea Giardiasis Rotavirus diarrhoea Salmonellosis Shigellosis Yersiniosis	Protozoon Protozoon Bacterium Bacterium Protozoon Bacterium Protozoon Virus Bacterium Bacterium Bacterium
b) Enteric fevers	Typhoid Paratyphoid Poliomyelitis Hepatitis A Leptospirosis Ascariasis Trichuriasis	Bacterium Bacterium Virus Virus Spirochaete Helminth Helminth
2) Water-washed a) Skin and eye infections	Infectious skin diseases Infectious eye diseases	Miscellaneous Miscellaneous
b) Other	Louse-borne typhus Louse-borne relapsing fever	Rickettsia Spirochaete
3) Water-based a) Penetrating skin	Schistosomiasis	Helminth
b) Ingested	Guinea worm Clonorchiasis Diphyllobothriasis Paragonimiasis Others	Helminth Helminth Helminth Helminth Helminth
4) Water-related insect vector a) Biting near water	Sleeping sickness	Protozoon
b) Breeding in water	Filariasis Malaria River blindness Mosquito-borne viruses Yellow fever Dengue Others	Helminth Protozoon Helminth Virus Virus Virus

Source: ACF: *Water, Sanitation and Hygiene for Populations at Risk, Annex 5, page 675*



2. Environmental classification of excreta-related infections

Category	Infection	Pathogenic agent	Dominant transmission mechanisms	Major control measure (engineering measures in italics)
1) Faecal–oral (non-bacterial) Non-latent, low infection dose	Poliomyelitis Hepatitis A Rotavirus diarrhoea Amoebic dysentery Giardiasis Balantidiasis Enterobiasis Hymenolepiasis	Virus Virus Virus Protozoon Protozoon Protozoon Helminth Helminth	Person to person contact Domestic contamination	Domestic water supply Improved housing Provision of toilets Health education
2) Faecal–oral (bacterial) Non-latent, medium, or high infectious dose Moderately persistent and able to multiply	Diarrhoeas and dysenteries Campylobacter enteritis Cholera <i>E. coli</i> diarrhoea Salmonellosis Shigellosis Yersiniosis Enteric fevers Typhoid Paratyphoid	Bacterium Bacterium Bacterium Bacterium Bacterium Bacterium Bacterium Bacterium	Person to person contact Domestic contamination Water contamination Crop contamination	Domestic water supply Improved housing Provision of toilets Excreta treatment before reuse or discharge Health education
3) Soil-transmitted helminths Latent and persistent with no intermediate host	Ascariasis (roundworm) Trichuriasis (whipworm) Hookworm Strongyloidiasis	Helminth Helminth Helminth Helminth	Yard contamination Ground contamination in communal defaecation area Crop contamination	Provision of toilets with clean floors Excreta treatment before land application
4) Beef and pork tapeworms Latent and persistent with cow or pig intermediate host	Taeniasis	Helminth	Yard contamination Field contamination Fodder contamination	Provision of toilets Excreta treatment before land application Cooking and meat inspection
5) Water-based helminths Latent and persistent with aquatic intermediate host(s)	Schistosomiasis Clonorchiasis Diphyllobothriasis Paragonimiasis	Helminth Helminth Helminth Helminth	Water contamination	Provision of toilets Excreta treatment before discharge Control of animals harbouring infection Cooking

Category	Infection	Pathogenic agent	Dominant transmission mechanisms	Major control measure (engineering measures in <i>italics</i>)
6) Excreta-related insect vectors	Filariasis (transmitted by <i>Culex pipiens</i> mosquitoes) infections Infections in categories 1–4, especially I and II, which may be transmitted by flies and cockroaches	Helminth Miscellaneous	Insects breed in various faecally contaminated sites	Identification and elimination of potential breeding sites <i>Use of mosquito netting</i>

