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## WHAT ARE PROTOZOA?



Protozoa are abundant in the world.

Wherever there are bodies of water, soil, bogs or desert you can more or less guarantee that it will be teeming with single celled life such as the amoeba and ciliates.

Of the 50,000 different types, some protozoa are solitary organisms; others live within colonies, whereas others are parasitic and live within plants, animals and humans.

They are remarkably hardy and have remained largely unchanged for millennia.

Their longevity and the thing that makes protozoa as impressive as they are is they behave in a similar fashion to animals. Through simple, yet ingenious, means they can move under their own power and they display predatory behaviour.

The amoeba, for example, can effectively hunt other single-celled organisms before absorbing them and breaking them down entirely.

The process can be brutally violent.

However, despite their name literally meaning first-animals, protozoa (or protists to use its more accurate term), bear no real relation to the animal kingdom what-so-ever.

Whilst largely harmless to humans, some protozoa do actually pose a risk. Whilst it's possible to contract a protozoan infection – which often inhabits the intestine – they are largely treatable with antiprotozoal agents.

However, certain types of protozoa are carriers for a number of potentially fatal infectious diseases including Sleeping Sickness, Chagas disease and Giardiasis.

Plasmodium protozoa are also known to cause Malaria. Mosquitos become carriers through inhabiting contaminated water.

The parasitic protozoa are most often spread through contaminated or stagnant water, biting insects such as the mosquito & tsetse fly and in some cases, food.

Whilst localised to Africa and South America, international travel and trade has meant that non-natives can pick up the disease and become vectors. Cases of Sleeping Sickness have been reported in Europe although instances remain thankfully very low.

The human body, unfortunately, is the ideal incubator for protozoan parasites to spread, infecting the bloodstream and nervous system. Without rapid treatment these conditions can prove fatal or permanently life changing.

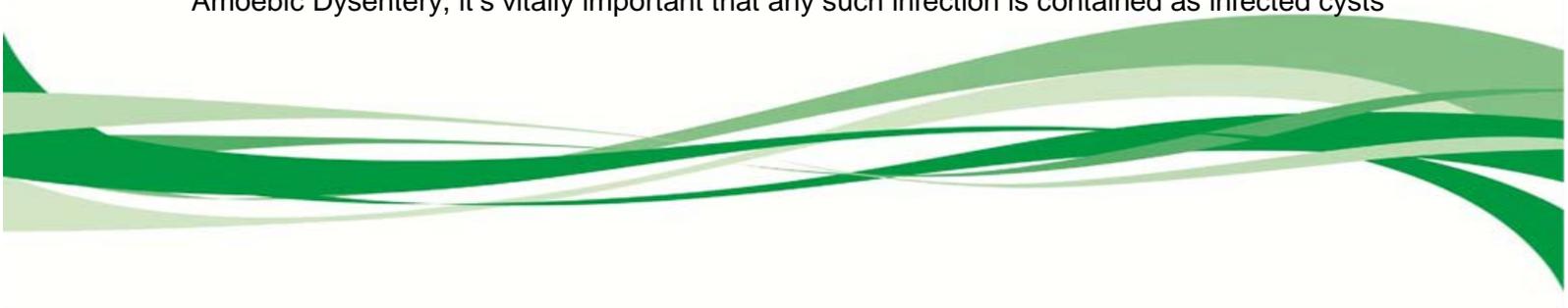
With no vaccine available to protect against protozoan parasites, prevention remains the best defence and early treatment the only real cure.

However, there is another means of infection that poses the greatest risk to clinicians and other patients when treating those infected by parasitic protozoa. The parasite can be transmitted through faecal matter should it enter the digestive system or the blood stream.

As unpalatable as that sounds, it's a reality and surprisingly easy for contamination to occur when applied to a hospital setting. Especially if the individual is bed bound.

Improper hand hygiene procedures, incorrect glove use or ineffective infection control measures can all result in particulates making their way on to surfaces, clothes or skin.

Considering the most common form of protozoan infection in the UK is the highly contagious Amoebic Dysentery, it's vitally important that any such infection is contained as infected cysts



can easily spread and prolonged exposure without treatment can cause long term damage to the intestines including ulcers and bleeding.

Although rarely contracted in the UK – the disease more common to tropical areas – it can be contracted as a result of travel of improperly treated food stuffs such as salads, unpeeled fruits and ice cream.

Unlike much other protozoan disease, amoebic dysentery can incubate for months or even years before symptoms manifest themselves. However, they are a vector throughout this period so the spread of infection could be vast.

Because of the unpredictable nature of the incubation period it may not be immediately apparent when or where the patient became infected, making diagnosis harder.

Whilst relatively easy to treat, in the closed confines of a hospital ward, it doesn't take much for something as aggressive as a protozoan parasite, to spread.

In the event of your facility receiving a patient with a protozoan parasitic infection, infection control procedures should be rigorously observed, especially hand hygiene and glove best practices.

Ensuring you have the means to safely dispose of any infectious material is fundamental to containment. Disposing of any infectious material in short order maximises the chances of keeping clinicians and patients safe from protozoan infection.

For more information on how we can support your infection control strategy through sluice/dirty utility room design, machinery and consumables, contact us today and one of our solution experts can help.

**Contact Details: -**

**Tel: +44 1202 731555**

**E-mail: [info@ddcdolphin.com](mailto:info@ddcdolphin.com)**

**Website: [www.ddcdolphin.com](http://www.ddcdolphin.com)**



**DDC Dolphin Ltd, The Fulcrum, Vantage Way, Poole, Dorset, BH12 4NU, United Kingdom.**