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**Section : A**

**Assignment : Pharmacology**

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## **Antiprotozoal drugs:**

Antiprotozoal drugs are a class of medication used to treat infections caused by protozoa, which are single cell parasites. Protozoal infections occur throughout the world and are a major cause of morbidity and mortality in some regions such as Africa and South-East Asia.

A few of the protozoa of medical importance include plasmodium (the cause of malaria); Entamoeba histolytica (the cause of amebiasis, amebic dysentery) and Trichomonas vaginalis (a cause of vaginal infection); and pneumocystis carinii (a common cause of pneumonia [PCP] in immunodeficient persons).

Some antiprotozoal drugs include the antimalarials Aralen (Chloroquine), Daraprim (pyrimethamine), Lariam (mefloquine) and Plaquenil (hydroxychloroquine); Flagyl (metronidazole) which is active against Entamoeba histolytica and Trichomonas vaginalis and Mepron (atovaquone) for Pneumocystis carinii.

## **Agent Antiprotozoal:**

An agent that destroyed protozoa or inhibits their growth and ability to reproduce.

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## **Class of Oral antiprotozoal drugs:**

Commonly used oral antiprotozoal drugs can be generally classified into two main groups: antimalarial drugs and miscellaneous antiprotozoal.

The actions of antiprotozoal drugs against the infections are complex and are not fully understood. Some of them may interfere with reproduction of or damage Protozoal DNA to limit the spread of an infection.

## **Antimalarial drugs:**

Antimalarial drugs include mefloquine, chloroquine, proguanil with atovaquone and doxycycline. They kill or inhibit the growth of protozoa by affecting different stage of the parasitic life cycle. They are used both to treat and prevent malaria.

For prevention of malaria the choice of drugs is based on the destinations you are going to visit, the risks as determined by your travelling behavior and your previous health status.

## **Miscellaneous antiprotozoal:**

Commonly used miscellaneous antiprotozoal include metronidazole, tinidazole and nifuratel. Metronidazole is the most common treatment for trichomoniasis and giardiasis. Its action in the treatment of Protozoal infections remains poorly understood, however, it may work by damaging Protozoal DNA.