

'Gastrointestinal Infections'

More than just diarrhoea





'Gastrointestinal'

Confusing?!



'Any illness causing Diarrhoea'

- A common misunderstanding by the 'General Public' and 'Travel Medicine Specialists'!!

'Any illness affecting the stomach and/or the intestines'

- Definition linked to the speciality of 'Gastroenterology'

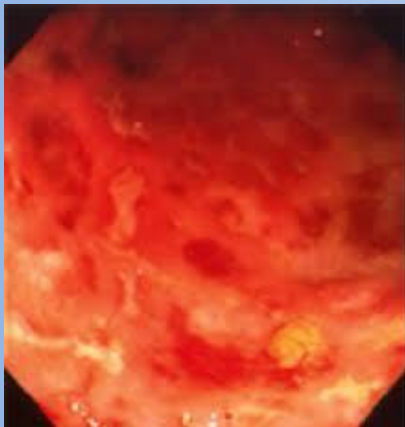
Let's use the term – 'Alimentary Tract'

(Mouth to Anus)

While many Infections of the Alimentary Tract cause Diarrhoea

Remember!

Not all diarrhoeal illnesses are due to infection



Ulcerative colitis



Crohn's disease



Severe malnutrition

The Mouth, Throat and Salivary Glands

Usually contracted through saliva or respiratory secretions



Herpes Simplex



Varicella



Measles



Glandular fever



Mumps
(+ herpes simplex)

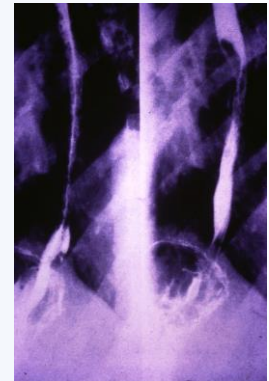


Scarlet fever

Oesophagus, Stomach and Duodenum

Candidiasis

- Commensal but may be symptomatic especially in the immunocompromised
 - E.g. HIV infection and cortico-steroids
- Route of entry for blood-stream and systemic infection



Helicobacter Pylori

- Duodenal Ulcer and chronic infection may be associated with Gastric Carcinoma
- Probably spread by faecal contamination of food or water, hand to mouth or by saliva.



Typhoid

- Septicaemic illness – rarely diarrhoea (may occur late on in illness)
- Normal or low white cell count – in differential diagnosis of malaria
- Slow onset of fever with headache, vomiting, malaise, delirium –
- Untreated ‘crisis’ (death or recovery) after about 10-14 days



Enteroviruses

Poliomyelitis

- Highly infectious oral/oral and faecal/oral
- Can cause death (encephalitis) and serious lifelong disabilities
- Community spread – faecal/oral: water, food, droplets
- Salk injectable vaccine introduced in 1950s and used again recently when cost and logistics allow to reduce cases of vaccine associated illness
- Oral live 'Sabin' vaccine campaigns take advantage of ease of community spread



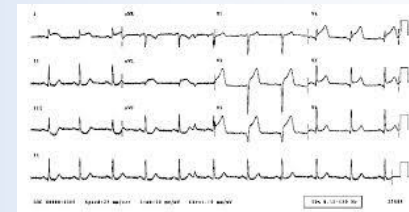
More Enteroviruses

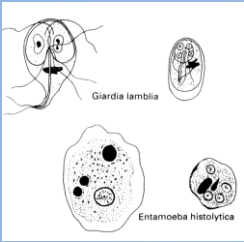
Coxsackie, rhino and echoviruses

- All enter through the alimentary tract: very common and easily spread
- If symptomatic usually may only cause fever, mild rash, coryza

- But can occasionally cause more serious illness

- Herpangina
- Myocarditis and pericarditis
- Aseptic meningitis
(probably the most common more serious complication)
- Pancreatitis
- Bormholm's Disease
- Hand, foot and mouth Disease

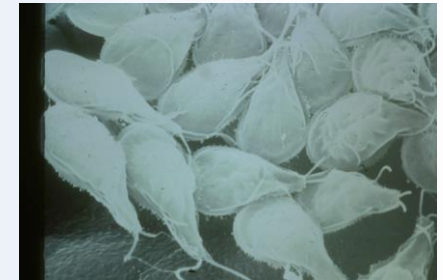




Protozoal Infections

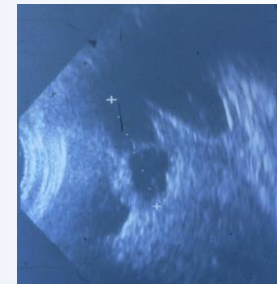
Giardiasis

- Trophozoites in jejunum and upper intestine
- Slow onset (weeks) – nausea
- Early morning frothy, smelly motion(s)
- Fluid diarrhoea unusual
- Often diagnosis missed - especially in UK!



Amoebiasis

- May present as fever and hepatitis or liver abscesses without diarrhoea



Other Liver infections

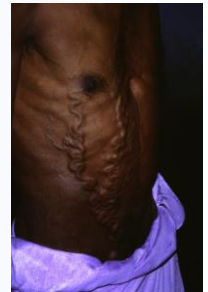
Hepatitis A

- Easily spread through food, water or person to person
- 80+% of adults in many countries have evidence of past infection



Hepatitis E

- Spread as hepatitis A – probably more through water
- Particular risk of serious disease during pregnancy



Leptospirosis

- Contracted through skin or mouth from urine of infected animals especially rats and voles
- River, canal and sewer workers and veterinarians at special risk



Milk and milk products

Bovine Tuberculosis

- Spread through unpasteurised milk
- No evidence of spread through meat



Brucellosis

- Predominantly milk spread
- Fever often prolonged and non-specific symptoms



Listeriosis

- A ubiquitous organism
- Mainly spread by milk and other contaminated foods
- Fever, septicaemia, neurological complications
- Particularly vulnerable are:
 - The elderly and immunocompromised
 - Pregnant women, unborn babies and neonates

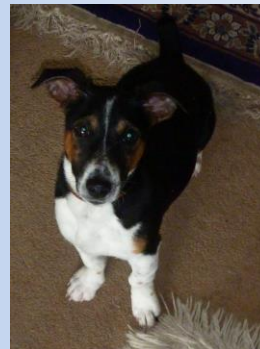


Other Animal related infections

Toxoplasmosis



Toxocariasis



Parasitic Worms (Helminths)

–Spread by ingestion of contaminated faeces (usually human) – through food, drinks or from hand to mouth



–Or in some instances through ova directly from infected meat (e.g. taenia)

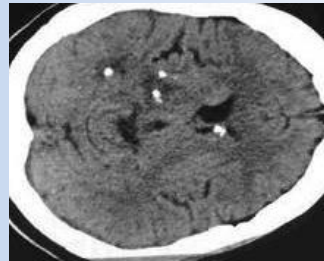


Tapeworms

Taenia Solium

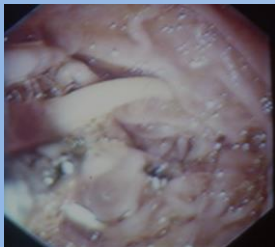


(Cysticercosis)

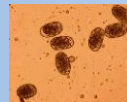


Roundworms

Ascaris lumbricoides,



Ankylostoma
(Hookworms)



Trichuriasis
(Whipworms)



Strongiloides



Enterobius
(Threadworms)



Remember some Helminths mainly spread through skin but may enter through mucous membranes (e.g. the mouth)

Hookworm



Schistosomiasis (bilharzia flukes)



S. Mansoni

Preventing Infections - The Global Context

Education: understanding sources and means of spread



Wealth does not equate to Health

Although a little money can make a big difference!

A Global Effort but requiring Local Responsibility



AN INVITE!

'LetUsShine'



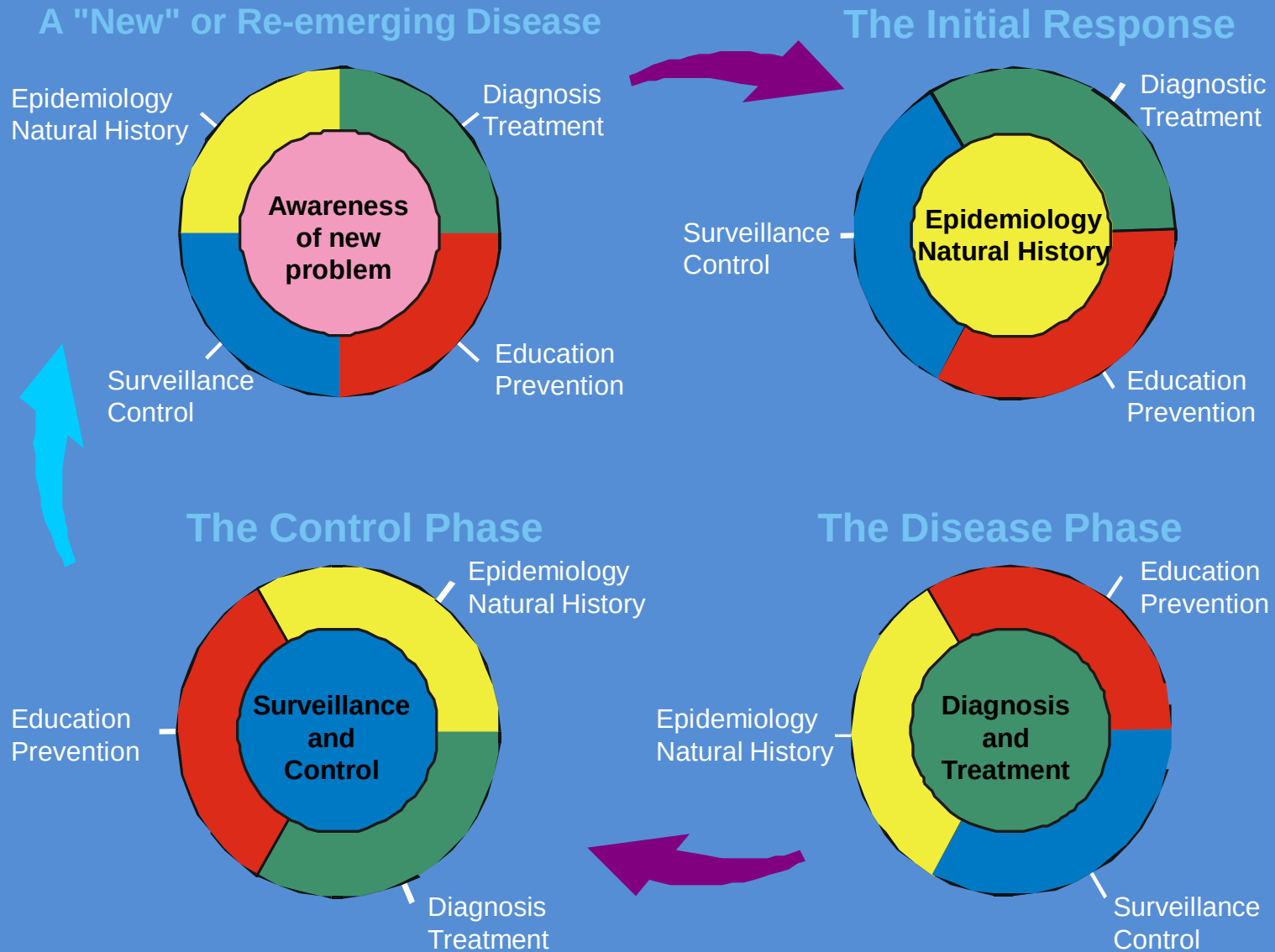
A Scottish based Charity dedicated to providing opportunities in education, training and employment for some of the poorest children in Ghana



You can sponsor my 'Electricity, Car and Wife free week' at:

<http://www.justgiving.com/Eric-Walker>

Preventing Travel Related Illness





Prevention through Education and Personal Responsibility

Knowledge of sources of risk including animals in the country or region concerned

How to maintain personal food, water and personal hygiene

Consider vaccination if relevant

