Microlife: GP

From your local Clinical Microbiology Team

December 2012

Welcome

In this edition we provide an update on dealing with infectious intestinal disease samples.

We hope you find this newsletter useful. Please send any comments to: Savita.gossain@heartofengland.nhs.uk

Clinical enquiries:

Heartlands Hospital:
Microbiology Consultant
0121 424 3244

Good Hope Hospital:
Microbiology Consultant
07917 648323

Heartlands Hospital:
Virology enquiries:
Switchboard, bleep 2821

Out of Office Hours:
Switchboard
0121 424 2000

Laboratory results:

For all results enquiries, contact: 0121 424 3256

Laboratory Opening Hours:

Mon - Fri: 7am - 7pm

Sat, Sun & Bank Holidays: 8am - 4pm

Infectious Diarrhoea

Infectious intestinal disease affects up to 20% of the population each year and can be caused by many different microorganisms. Most episodes are short lived and often due to viral illness (e.g. Norovirus). Once diarrhoea has settled, culture is not usually indicated, as recovery of the pathogen is less likely.

Send faeces samples if:

- Patient is systemically unwell
- Bloody diarrhoea
- Post broad spectrum antibiotics or hospitalisation
- Requested by HPU e.g. public health hazard, contacts of cases of E. coli O157, etc
- Diarrhoea after foreign travel

Repeat specimens are usually not indicated – unless advised by microbiologist or CCDC.

What do we test for routinely?

In all faecal specimens requesting MC&S, we routinely test for the organisms below:

Organism	Positivity rate (2012 data)
Campylobacter spp	6.8%
E. coli 0157	2.3%*
Giardia lamblia cysts	1.1%
Cryptosporidium oocysts	1.0%
Salmonella spp	0.9%
Shigella spp	0.2%

** Includes several E. coli 0157 outbreaks, positivity rate not necessarily reflective of prevalence in patients presenting to GP's*

We can test for other more unusual pathogens if indicated by relevant details (e.g. *Vibrio sp* if travel to an endemic area), but **remember**, we will only know to perform additional investigations if relevant clinical details are clearly stated on the request form.

More unusual, specialist tests such as Mycobacterial stool culture or Strongyloides culture should only be sent following discussion with the laboratory.

What about *Clostridium difficile*?

C. difficile is the most common cause of diarrhoea in healthcare settings. It causes a spectrum of disease, from mild diarrhoea to pseudomembranous colitis and toxic megacolon. Infection is most commonly associated with prior antibiotic exposure, particularly broad spectrum antibiotics.

Testing for *C. difficile* is only indicated if the stools are sufficiently loose to take the shape of the container - we do not test formed samples for *C. difficile*.

Consider *C. difficile* as a diagnosis if:

- Recent antibiotics
- Recent hospitalisation

Please state the risk factor(s) on the request form and ask for ***C. difficile***.

What about Ova, Cysts and Parasites (OCP)?

In an audit of 4,034 faeces examined for OCP between 2009 and 2011 in two large microbiology laboratories, only seven samples contained significant parasites (0.17%). This excludes Giardia and Cryptosporidium, which are tested for routinely.

Request OCP where there has been relevant foreign travel, especially outside Europe (state destination). If you strongly suspect parasitic infection, send three faecal samples taken on different days.

If you suspect Threadworm / Pinworm infection, diagnosis by a faecal sample is unsuitable, as eggs are rarely found in the faeces.

Suitable methods for threadworm diagnosis are:

- A sellotape slide
- A swab - moisten a swab with sterile saline, repeatedly roll over the whole of the perianal area, then break the swab into a plain universal container and send to the laboratory, asking for **Threadworm** (not M,C&S). Samples should be taken first thing in the morning before bathing or defecation.

Viruses

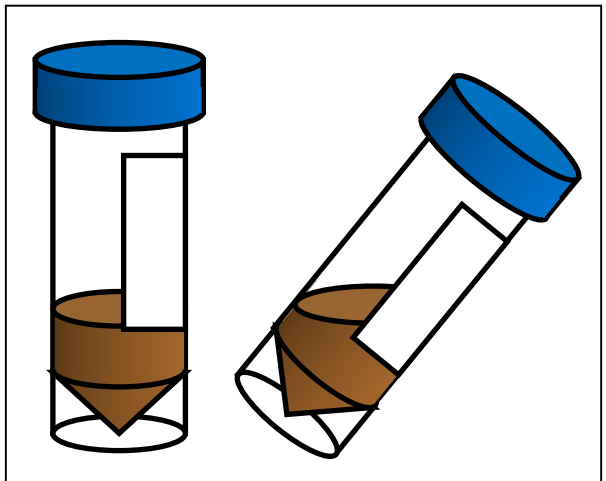
We can test for certain viruses, if specifically requested - Rotavirus and Adenovirus in patients who are ≤5 years or ≥60 years old, or Adenovirus and Enterovirus in patients who are six to 59 years old.

Norovirus is a common cause of infectious diarrhoea which is short-lived and associated with a high secondary attack rate. We usually only test samples for Norovirus when part of an outbreak notified to Environmental Health. We would be happy to discuss cases where there are specific reasons to make the diagnosis or any infection control issues. Contact the Duty Virologist (via switchboard 0121 424 2000).

We are currently experiencing a resurgence of Norovirus activity with some wards closed.

Why do we sometimes have to reject faeces samples?

In a recent survey of 239 samples received from GPs in one week, 67 samples were rejected, that's 28%! We are very eager to reduce this figure to prevent delays in diagnosis and the negative effect this has on patient care.



Container must be at least 1/4 filled (5ml) and sample must take the shape of the container

To reduce specimen rejection, please ensure the following:

- Send **at least 5ml** of loose (takes shape of container) or liquid stool
- For OCP send **10ml** of stool
- Include a minimum of two patient identifiers **both on form and specimen container**.
- Make sure tops are secured firmly and not cross threaded, preventing specimen loss.
- For *C. difficile* testing - only send if sufficiently loose to take the shape of the container.
- Please do not send stool samples for *H. pylori* faecal antigen testing - this test is not currently available at our laboratory.

References:

1. HPA quick reference guide on Infectious Diarrhoea: http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1203582652789
2. http://www.parasite-referencelab.co.uk/handbook/docs/DMP%20handbook%202008.pdf

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