

**PCR OF STOOL FOR GIARDIA LAMBLIA, CRYPTOSPORIDIUM Spp, and ENTAMOEBIA HISTOLYTICA STARTS ON 7<sup>th</sup> January 2019 at RIE LABORATORY- SJH to FOLLOW**

We are introducing a more sensitive test for the common parasitic causes of chronic diarrhoea in order to improve the turnaround time of the test.

**Why are we doing this –**

We have not been able to meet the turnaround target for faecal parasitology for many years.

New PCR assays are now available which are more sensitive than microscopy. Microscopy cannot distinguish non pathogenic *E. dispar* from pathogenic *E. histolytica*. The PCR assay only detects *E. histolytica*.

We are still doing microscopy for other parasites such as *Ascaris*, *Schistosoma* etc. There is not currently a PCR assay suitable to detect all faecal parasites.

**How will this work.**

Order faecal parasitology as normal using ICE or TRAK. NB The clinical details will be used to determine which parasites are looked for.

Please ask the patient to put 5ml liquid or 5g of semi-solid / solid stool in a blue container ( a grape size lump).

We will update the laboratory medicine website as soon as practical with information about the new tests. <http://www.edinburghlabmed.co.uk/Pages/default.aspx>

Most of our parasitology requests are for chronic diarrhoea acquired in the UK and so will only get the new PCR assay. If there is a history of symptoms or travel history that suggests the need for microscopy as well then the microbiology staff will add on a microscopy for parasites.

The following indications will lead to microscopy being added:

- Patients returning from abroad outside Western Europe, North America, Canada, Australia and New Zealand i.e. central America, South America, Africa, Asia, travel to the Balkans, i.e. Albania, Serbia, Croatia, Montenegro, Bosnia, Macedonia, Slovenia, Bulgaria, Romania, European Russia, Ukraine and Moldova.
- Diagnosis of eosinophilia
- Worms seen in stool
- Patient concerned re enteric parasites.

**How often will we do the test?**

The PCR will be run in the batches twice a week so we anticipate a turnaround time of at most 5 working days.

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### **How will the reports come out?**

The parasite PCR will come as a separate report. Those samples getting microscopy will get a PCR result and a microscopy result. If a sample is getting microscopy we intend to have a comment on the PCR result that there is a further report for microscopy to follow

**We will still require separate stool samples for virology for Norovirus.**

### **What will we do with positive PCR results for Giardia, Cryptosporidium or Entamoeba histolytica.**

**Positive results will be phoned to the requesting GP surgery or hospital team. The microbiology laboratory will also inform the Health Protection team.** Reports will also be issued in the normal ways.

### **Where can I find information about treatment of positive results.**

There is guidance in the LJF

[http://www.ljf.scot.nhs.uk/LothianJointFormularies/Adult/5.0/\(a\)/Pages/default.aspx](http://www.ljf.scot.nhs.uk/LothianJointFormularies/Adult/5.0/(a)/Pages/default.aspx)

[http://www.ljf.scot.nhs.uk/LothianJointFormularies/Child/5.0/\(a\)/Pages/default.aspx](http://www.ljf.scot.nhs.uk/LothianJointFormularies/Child/5.0/(a)/Pages/default.aspx)

There is very good guidance on the NICE CKS website

<https://cks.nice.org.uk/gastroenteritis#!scenario recommendation:23>

If you cannot find the answer you can contact Microbiology for advice.

### **Can samples tested in Microbiology , SJH get parasite PCR?**

Due to fewer sample numbers St John's lab has not had a problem with turnaround times for faecal parasitology. They also have used a more sensitive microscopy method for detecting Giardia and look for it on all stool samples.

Once we have the service up and running at RIE we will consider extending the service to SJH at our annual management review.

In the meantime if there are specific cases that need parasite PCR, for example possible amoebic dysentery, then the stool sample can be referred to RIE Microbiology.