

August 2007

## Fungal Blood Culture Requests

To Health Care Providers:

### Instructions for Yeasts, excluding *Malassezia* species

Fungal bloodstream infections occur most commonly in immunocompromised or seriously ill, hospitalized patients with specific risk factors. The vast majority of these infections are due to *Candida* species or other yeasts or yeast-like organisms such as *Cryptococcus neoformans* and less frequently, *Trichosporon*, *Geotrichum* or *Rhodotorula* species. **These organisms are adequately detected by the commercial blood culture systems available in most hospital diagnostic laboratories. No further testing by the Ontario Public Health Laboratory is required.**

Furthermore, it is not necessary to hold blood cultures for yeast detection for more than the standard 5-7 day incubation. Older guidelines recommending extended incubation for 2-4 weeks for fungal blood culture are no longer indicated unless other more fastidious organisms are being strongly considered, i.e. *Histoplasma capsulatum* or other filamentous fungi.

*Malassezia* is the one yeast that is not optimally detected by automated blood culture systems. Suspect *Malassezia* infections, i.e. central line or total parenteral nutrition infections and undiagnosed neonatal sepsis, are to be noted on the clinical information section of the requisition, and specimens should be collected and handled as specified below for filamentous fungi.

### Instructions for Fastidious, mainly Filamentous Fungi

It should be noted that with the exception of *Fusarium* species, most filamentous fungi are difficult to grow from the blood despite the fact that infections such as disseminated aspergillosis and zygomycosis are spread via the bloodstream. When *Aspergillus* is isolated from the blood, it is more often a contaminant than a true positive.

## Fungal Blood Culture Request (Continued)

For the detection of fastidious fungi such as *Histoplasma*, *Blastomyces*, and *Malassezia* species, and for clinical situations in which a disseminated fungal infection is strongly suspected but routine bacterial and fungal cultures are negative, a special request for fungal blood culture can be made.

For this purpose:

- Collect up to 10 ml of blood per septic episode in a sterile sodium heparinized test tube (green top).
- During holding and transport, this specimen should NOT be refrigerated. Please keep at room temperature.
- Send this **without delay** to the local Public Health Laboratory where it will be forwarded to the Central Public Health Laboratory and processed using the Isolator fungal blood culture system, with an extended incubation period of 4 weeks.

### For Further Information:

- Contact the Mycology Lab at 416-235-5720