Alberta Public Laboratories (APL) DynaLIFE MEDICAL LABS Laboratory Bulletin

Date: **July 2, 2019**
To: **North Zone, Edmonton Zone - All Physicians, Nurse Educators, Nurses, Laboratories and Laboratory Directors**
From: **Alberta Public Laboratories (APL) and *DynaLIFE* Medical Labs**
Re: **Discontinuation of Prolonged Incubation of Bacterial and Fungal Blood Cultures**

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Messages:

- Studies demonstrate that prolonged incubation of blood cultures in standard automated blood culture instruments beyond 5 days does not improve the yield of clinically significant microorganisms (bacteria and yeast).
- Review of our local cumulative laboratory data for both bacterial and yeast blood isolates confirms the above findings.
- Current blood culture vials and incubation methodology only support the growth of yeasts, but do not support the growth of filamentous or dimorphic fungi.
- For patients where fungaemia with a filamentous or dimorphic fungus is suspected, 10mL of blood should be collected in an SPS tube or an isolator tube, and cultures will be held for 28 days.
- This change does not apply to blood cultures for transfusion reactions and cord blood sterility.

Why this is important:

Effective **June 15, 2019**:

- Blood cultures submitted for bacterial culture will only be held for 5 days. This applies to both non-endocarditis and endocarditis suspect cases.
- Blood cultures submitted with fungal culture requests will only be incubated for yeasts and held for 5 days.
- If blood stream infection with a fungus, other than a yeast, is suspected, submit 10mL of blood in an SPS or isolator tube.

Action Required:

- No action is required for routine blood cultures where bacteria or yeast are suspected. These will be held for 5 days.
- Please ensure maximum blood volumes are collected to produce optimal culture yield.
- Information on collection and volumes can be accessed at: www.albertahealthservices.ca/lab (choose Test Directory) and https://www.dynalife.ca/testdirectory
- Consult the Guide to Services for collection details when fungaemia with a filamentous or dimorphic fungus is suspected.

Inquiries and feedback may be directed to:

- Prenilla Naidu**,** MD, FRCPC, DTMH, Medical Microbiologist, Public Health, APL**:** Prenilla.Naidu@albertapubliclabs.ca
- Tanis Dingle, Ph.D., FCCM, D(ABMM), Clinical Microbiologist, Public Health, APL: Tanis.Dingle@albertapubliclabs.ca
- Mao Cheng Lee, MD, FRCPC, Medical Microbiologist, DynaLIFE Medical Labs: Mao-Cheng.Lee@dynalife.ca

This bulletin has been reviewed and approved by:

Dr. Graham Tipples, Medical/Scientific Director, Public Health, APL
Dr. Raymond Lai, Medical Director, DynaLIFE Medical Labs