

<b>DATE:</b>	11 July 2024
<b>TO:</b>	All Health Care Providers
<b>FROM:</b>	Section of Microbiology, Alberta Precision Laboratories
<b>RE:</b>	<b>Blood Culture Bottle Shortage</b>

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## PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

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### Key Message

- **BD BACTEC blood culture bottles will experience a supply shortage of up to 50% over the next several months.**
- Clinicians across the province are being asked to adhere to best practice recommendations when ordering blood cultures.
- If provincial mitigation strategies are insufficient to counteract the reduction in supply, additional measures, such as restricting routine blood culture orders to a single set (1 aerobic and 1 anaerobic bottle) instead of the current 2 sets, may need to be considered.

### Background

- BD has provided notification of an international shortage affecting aerobic, anaerobic and pediatric bottles. The duration is unknown but is anticipated to last for several months with supplies potentially reduced by up to 50%.
- All microbiology laboratories in Alberta, except for the Calgary Hub Lab (DSC), use the BD BACTEC FX Blood culture system. BD BACTEC bottles are required for these instruments and there are no alternative products available.
- The Calgary Hub Lab (DSC) uses the bioMérieux BacT/ALERT VIRTUO platform, which is not affected.

### How this will impact you

- Mitigation strategies will be based on the availability of bottles. Currently, these strategies include:
  - Encouraging all clinicians to **follow best practice recommendations for blood culture utilization:**
    - Avoid ordering blood cultures in patients with low suspicion of bacteremia.
      - e.g., community-acquired pneumonia, cellulitis, and UTIs without signs of sepsis
    - Avoid repeating blood cultures within 48 hours if there have already been 2 sets drawn and are still incubating.
    - Avoid repeating blood cultures in patients with bacteremia with organisms with low risk of endovascular complications, including most Gram-negatives (e.g., *E. coli*, *Klebsiella* spp.) and certain Gram-positives (e.g., Group A strep, *S. pneumoniae*). Documentation of bacteremia clearance is not routinely necessary for these organisms.
    - If repeat blood cultures are necessary (e.g., *S. aureus* bacteremia), repeat at most once every 48-72 hours.



- Implementing BacT/ALERT blood culture bottles in other Zones and redirect testing to the Calgary Hub Lab (DSC). Sites affected will be informed when this will be in effect.
- If supply constraints continue to worsen, further measures may be necessary and will be communicated.

**Effective      Immediately**

**Questions/Concerns**

- Dr. Byron Berenger, Microbiology Provincial Section Chief, APL ([Byron.Berenger@aplabs.ca](mailto:Byron.Berenger@aplabs.ca))
- Dr. Bob Verity, Microbiology Lead, Edmonton Base Laboratory, APL ([Robert.Verity@aplabs.ca](mailto:Robert.Verity@aplabs.ca))
- Dr. Dan Gregson, Microbiologist, Calgary DSC, APL ([dan.gregson@albertaprecisionlabs.ca](mailto:dan.gregson@albertaprecisionlabs.ca))

**Approved by**

- Dr. Carolyn O'Hara, Interim Chief Medical Laboratory Officer, Alberta Precision Laboratories

*Effective September 1, 2023, APL has become the sole provider of all public lab services in Alberta. As a result, community lab services formally provided by DynaLIFE Medical Labs will become the responsibility of Alberta Precision Labs (APL). This change impacts all zones.*