



<b>DATE:</b>	2021 September 17
<b>TO:</b>	South Zone East (inc. Medicine Hat) Physicians and Nursing Staff
<b>FROM:</b>	Alberta Precision Laboratories (APL) - Medicine Hat Regional Hospital, Microbiology
<b>RE:</b>	<b>Temporary Change to Blood Culture Incubation and Reporting Times</b>

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### Key Message

- **Effective immediately**, at the Medicine Hat Regional Hospital (MHRH) laboratory, the incubation time of blood cultures is being reduced to 4 days (from the current 5 days).
- This is a temporary measure to preserve adequate capacity to continue performing blood culture testing at MHRH.

### Why this is important

- Blood culture utilization normally runs at ~80% of the capacity of the blood culture instrument. Due to recent increased volume of collected blood cultures, utilization is over 100% of capacity. This is a **critical situation**.
- A decrease in incubation time from 5 to 4 days using the same model of blood culture instrument at MHRH has previously been validated and implemented at other APL sites.
- Studies at other centres show minimal loss of sensitivity with 4 days of incubation versus 5.<sup>1</sup>

### Action Required

- **Reduce ordering of blood cultures where appropriate.** Some suggestions:
  - Collect 2 sets of blood cultures initially, and do not repeat for at least 48 hours. Timing of collection with fever spikes does not improve positivity.<sup>2</sup>
  - If documenting clearance after a positive blood culture, do not repeat collection of blood cultures until 48 - 72 hours has elapsed.
- If candidemia is suspected, 5 days of incubation may be required. Indicate *Candida* or yeast in the "suspected organism" field in the Meditech order or requisition.
- If a fastidious organism is suspected that requires prolonged incubation, the clinician may consult the Microbiologist-On-Call at 403-770-3799.

### Inquiries and feedback may be directed to

- Crystal Geddes, Microbiology Tech II, 403-502-8648 ext. 1202, [crystal.geddes@albertaprecisionlabs.ca](mailto:crystal.geddes@albertaprecisionlabs.ca)
- Dr. Wilson Chan, Medical Microbiologist, 403-770-3338, [wilson.chan@albertaprecisionlabs.ca](mailto:wilson.chan@albertaprecisionlabs.ca)

### This bulletin has been reviewed and approved by

- Dr. Paul Klonowski, MD, Associate Medical Director, South Sector, Alberta Public Laboratories

### References:

1. Cornish N et al. Diagn Microbiol Infect Dis 1998. 32(1):1-7.
2. Baron EJ et al. Cumitech 1C: Blood Cultures IV. 2005. ASM Press.