

DATE:	6 February 2023
TO:	All Medicine Hat and Area Laboratory Staff, Physicians, and Healthcare Providers
FROM:	Clinical Biochemistry, South Sector, Alberta Precision Laboratories (APL)
RE:	Pleural Fluid for pH Collection

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Key Message

- Pleural fluid samples for pH must now be collected anaerobically into a balanced heparinized blood gas syringe (PICO50® syringe or Westmed blood gas sampler syringe) to align practices for pleural fluid pH testing within South Zone
 - Samples collected in alternate containers, including orange sterile containers, will no longer be accepted.
- A reference interval will now be included due to a concurrent change in testing methodology
 - Pleural fluid pH reference interval: ≥ 7.20
- There will be no changes in ordering for Medicine Hat Regional Hospital. However, due to updated collection and testing requirements, pleural fluid pH will no longer be available at rural sites.

Why this is Important

- Exposure of the sample to air leads to a clinically significant increase in pH, resulting in misleading results that can negatively impact patient care.
- The change in the testing methodology will enhance the quality of the pleural fluid pH results, thereby improving the interpretation of results.

Action Required

- Update information to obtain the new blood gas syringes:
 - PICO50® or Westmed blood gas syringes are available from MHRH Respiratory department pager # 110. Respiratory is available as a resource to aid with this transition.
- Ensure the following are met during collection:
 - Samples are not exposed to air.
 - All bubbles are expelled from syringe.
 - Labelled syringes are sent to the laboratory immediately after collection.
- An update to the Test Directory has been requested.
- All other fluid testing should continue to be collected in orange sterile containers, as only pH can be tested from the heparinized syringe.

Effective February 14, 2023

Inquiries and feedback may be directed to

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This bulletin has been reviewed and approved by

- Dr. Spencer Paulson, Regional Laboratory Medicine Site Chief, Medicine Hat Regional Hospital
- Dr. Allison Venner, Clinical Biochemistry Associate Section Chief, Alberta Precision Laboratories
- Dr. Paul Klonowski, Associate Medical Director, South Sector