Alberta Health Services

Laboratory Bulletin

Date: **January 23, 2013**

To: **Central Zone (Former David Thompson Health Region)**
Physicians, Nurses and Laboratory Directors and Managers

From: **AHS Laboratory Services - Microbiology Laboratory, Red Deer Regional Hospital**

Re: **Discontinuation of Charcoal Swabs**

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Key Messages:

- Effective February 1, 2013, the supply of charcoal swabs to clinics, offices and hospital wards will be discontinued.
- Swabs will be replaced with the current clear Copan 140CQ swab transport system. The clear swab has proven to be at least equivalent if not better for preservation of micro-organisms during transport.
- The clear swabs allow for easier reading of Gram smears, and will be the only swab available for aerobic bacteria applications.

Background:

For many years it was thought that charcoal swabs provided better preservation of microorganisms during transport to the microbiology laboratory. This included bacterial species such as Neisseria gonorrhoeae, organisms from the gastrointestinal tract, and other fastidious species. The presence of charcoal in the semi-solid transport medium was designed to absorb potentially toxic compounds found in abscesses, etc.

Why this is important:

- More recent advances in transport media have shown that the charcoal does not provide an advantage. In some cases, the viability of these bacteria may actually be reduced when swabs are transported in media containing charcoal.
- Another important issue for the laboratory is that Gram smears prepared from swabs transported in charcoal are difficult to read. The charcoal on the slide obscures the microscopic field and can mask the observation of bacteria (including potential pathogens) and cells on the slide.

References:

- Olsen CC et al. 1999. Comparison of Direct Inoculation and Copan Transport Systems for Isolation of *Neisseria gonorrhoeae* from Endocervical Specimens. J Clin Microbiol. 1999 November; 37(11): 3583–3585.
- C. L. Brosnikoff, R. P. Rennie and L. C. Turnbull 2005. Evaluation Of Organism Recovery After Twelve Months Using The Roll Plate Method Described In CLSI Document M40: Quality Control Of Microbiological Transport Device. American Society for Microbiology Annual Meeting. Atlanta, Georgia. Abstract 9615.

Inquiries and feedback may be directed to:

- Tracy Bennett, Microbiology Tech III, Red Deer Regional Hospital Laboratory at 403-343-4740.

This bulletin has been reviewed and approved by:
Dr. Robert P. Rennie, AHS Consultant Microbiologist, Central Zone
Dr. James Wesenberg, AHS Provincial Medical / Scientific Director, Laboratory Services, Central Zone Clinical Department Head - Pathology and Laboratory Medicine