STANTON TERRITORIAL HEALTH AUTHORITY

POLICY/PROCEDURE

Category:	Biosafety and Biosecurity	**DISTRIBUTION:**	Hospital Wide Manuals
Subject:	Specimens Containing Suspected Risk Group 3 Pathogens	**Department:**	Laboratory
CURRENT EFFECTIVE DATE:	May 2016	**NEXT REVIEW DATE:**	May 2019

Stanton Territorial Health Authority (STHA) Laboratory routinely encounters pathogens that fall into Risk Groups 1 through 3. Activities involving these pathogens are regulated by the Human Pathogens and Toxins Act (HPTA) and Regulations. Under the Regulations, STHA is licensed to safely perform activities with only the Risk Group 3 pathogens in the *Mycobacterium tuberculosis* complex. All other Risk Group 3 pathogen testing is to be referred to Alberta Health Services: Provincial Laboratory for Public Health. Inadvertent possession is reportable locally, territorially and federally and poses serious health risks to laboratory workers.

SPECIAL POINTS

Clinical laboratories in health care facilities receive specimens for a variety of diagnostic and clinical support services. Pathogens in the Risk Group 3 Category are endemic in some geographic areas serviced by STHA. Typically, the infectious nature of the clinical material is unknown therefore it is important to establish standard procedures to address the issue of the infectious hazards.

The key message of this policy is if the STHA Laboratory is asked to culture anything suspected to contain any Risk Group 3 pathogen, or, to perform cultures from a sterile fluid from a patient in the Beaufort Delta or Nunavut, this must be clearly identified on the requisition as the STHA Laboratory must take additional precautions to handle these specimens safely. Please contact the laboratory if unsure if this process applies to a sample collected.

DEFINITIONS

***Mycobacterium tuberculosis* complex (MTBC):** a group of *Mycobacterium* species known to cause Tuberculosis (TB) in humans or animals. MTBC includes at least seven recognized RG3 agents: *M. tuberculosis* (excluding strain H37Ra), *M. bovis* (excluding strain BCG), *M. africanum, M. caprae, M. canettii, M. pinnipedii* and *M. microti*. Most cases of TB are caused by *M. tuberculosis*, and more rarely by *M. bovis*, which is the main cause of zoonotic transmission of TB from cattle to humans.

Risk Group: the classification of biological material based on its inherent characteristics,

including pathogenicity, virulence, risk of spread, and availability of effective prophylactic or therapeutic treatments, that describes the risk to the health of individuals and the public as well as the health of individuals and the public as well as the health of animals and the population.

Sterile body fluids: include blood, cerebrospinal fluid (CSF), pleural fluid, peritoneal fluid, and synovial fluid.

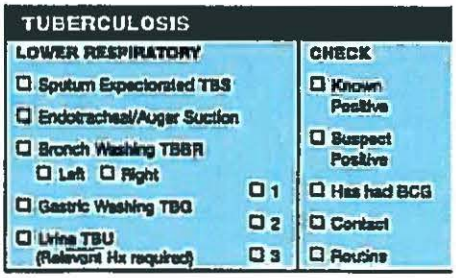
POLICY
See the Biosafety Policy in the STHA Biosafety Program Manual.

PROCEDURE

For Ordering Practitioners:

1. If the sample is suspected to contain a Risk Group 3 Pathogen (see Appendix A) other than the *Mycobacterium tuberculosis* complex, this must be clearly indicated on the laboratory requisition. These specimens will be forwarded directly for processing to the Provincial Laboratory for Public Health, in keeping with STHA's HPTA licence.

Orders for tuberculosis testing need to be completed on the appropriate section of the requisition.



2. If the specimen is from a sterile site (CSF, blood, or other body fluid) and the patient is from the Beaufort-Delta or Nunavut (see Appendix B), this must be clearly indicated on the Laboratory requisition. Risk Group 3 pathogens have been isolated in patients from these

areas and the laboratory must take additional precautions to handle these specimens safely.

For Laboratory Workers:

Follow the directions given in the Primary Specimen Handling Flow Chart found in Appendix C.

REFERENCES

1. Minister of Justice, Government of Canada. (2012, June 29). *Human Pathogens and Toxins Act.* Retrieved from http://laws-lois.justice.gc.ca
2. Public Health Agency of Canada. (2014, July 18). *Biosafety Directive for Mycobacterium tuberculosis Complex (MTBC).* Retrieved December 21, 2015, from Public Health Agency of Canada: http://www.phac-aspc.gc.ca/lab-bio/res/bio-dir-mtbc-cmtb-eng.php
3. Public Health Agency of Canada. (2015). *Canadian Biosafety Standard* (Second Edition ed.). Ottawa, ON, Canada: Her Majesty the Queen in Right of Canada, as represented by the Minister of Health and the Minster of Agriculture and Agri-Food.

Reviewed and approved by: MAY 05 2016
Chair, CPAC (signed and dated)

Reviewed and approved by: MAY 05 2016
Chief Executive Officer (signed and dated)

Appendix A

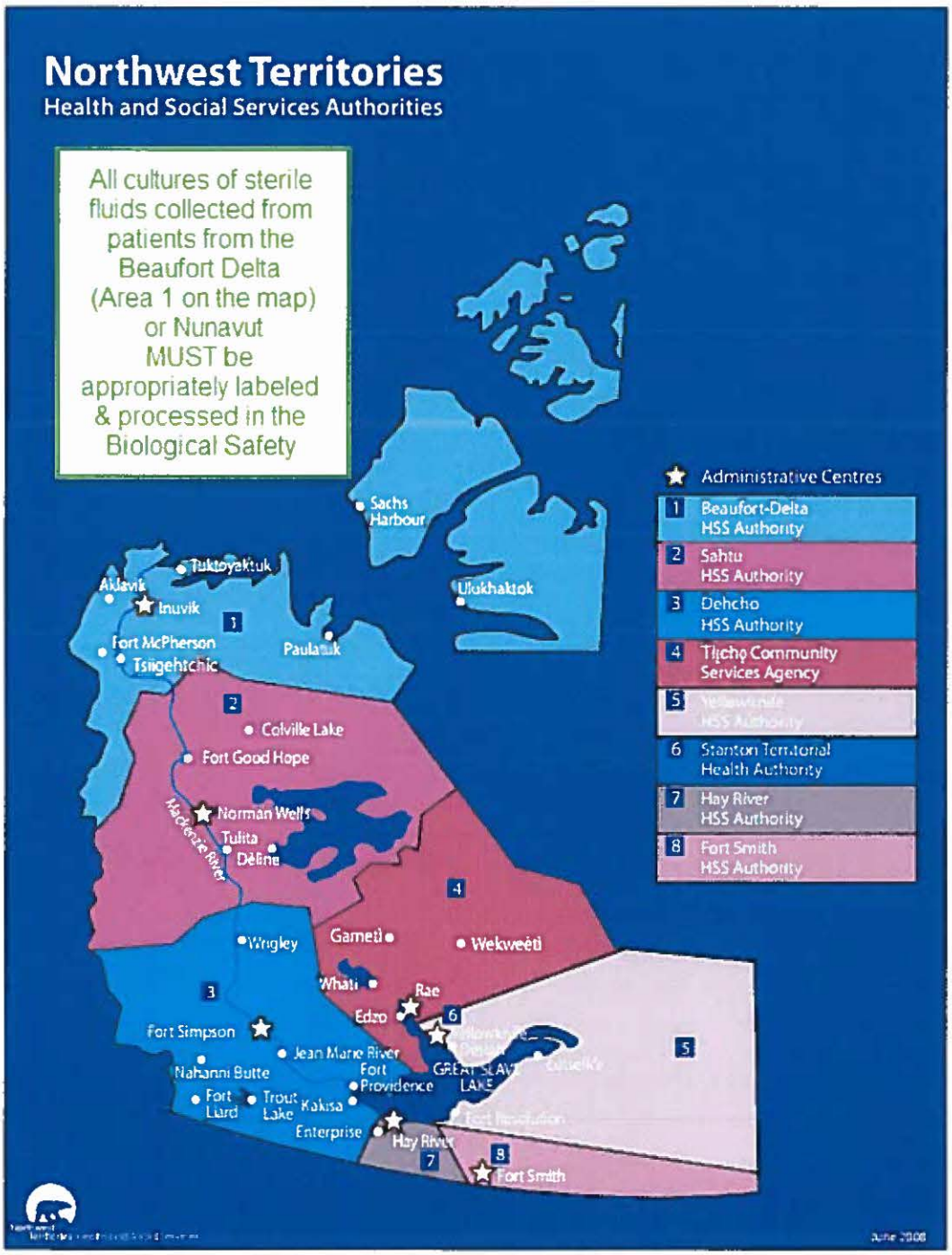
Bacteria found in Risk Group 3[1]

- *Bacillus anthracis*
- *Brucella abortus*
- *Brucella canis*
- *Brucella melitensis*
- *Brucella ovis*
- *Brucella suis*
- *Burkholderia mallei*
- *Burkholderia pseudomallei*
- *Chlamydia psittaci*
- *Coxiella burnetii*
- *Francisella tularensis*
- *Mycobacterium africanum*
- *Mycobacterium bovis*
- *Mycobacterium canettii*
- *Mycobacterium microti*
- *Mycobacterium tuberculosis*
- *Neorickettsia sennetsu*
- *Rickettsia akari*
- *Rickettsia australis*
- *Rickettsia conorii*
- *Rickettsia japonicum*
- *Rickettsia prowazekii*
- *Rickettsia rickettsii*
- *Rickettsia siberica*
- *Rickettsia typhi*
- *Yersinia pestis*

[1] Human Pathogens and Toxins Act

Appendix B

Map of Areas for which Patient Samples Require Special Handling



Appendix C

Primary Specimen Handling Flow Chart