

Collection and Handling of Cerebrospinal Fluid (CSF) Specimens

Applicability This document applies to all Central Zone – ECH personnel of AHS Laboratory Services and laboratories administered under the Covenant Health Group and the Lamont Health Centre collectively referred to here as Laboratory Services.

Purpose: This procedure provides instructions for the collection and handling of Cerebrospinal Fluid for culture, cell count, cytology, virology and miscellaneous chemistry.

Materials:

- Lumbar puncture kit
- Sterile tubes (screw top preferred)
- Iodine swabs
- Alcohol swabs

Specimen

Requirements: Aseptically collected CSF fluid in 3 or 4 sterile tubes.

Tube #	Test	Volume Required	Min Volume Required
1	Miscellaneous chemistry – protein, glucose, etc	3-5 mL	0.2 mL/test
2	Gram Stain and Culture	3-5 mL	N/A
3	Cell count and differential	3-5 mL	1 mL
4	Other tests as required – cytology, virology	3-5 mL	1 mL

Procedure: Physician / Nurse notifies Laboratory PRIOR to lumbar puncture (LP) so that the laboratory is prepared to receive the specimen.

Step	Action	Notes
Physician	Physician collects a total of 5 to 20 mL CSF into 3 or 4 sterile tubes.	<ul style="list-style-type: none"> • The tubes MUST BE LABELLED as to the order of collection (i.e. #1, #2, #3). • He/she is responsible for ordering the specific tests required.
Nursing staff	<ul style="list-style-type: none"> • Enter the test orders requested in MediTech and generate bar code labels. • Label the tubes as per Specimen Labelling procedure SPS-0023. <ul style="list-style-type: none"> ○ Tube #1 – glucose and protein testing ○ Tube #2 – culture 	<ul style="list-style-type: none"> • The appropriate requisition must accompany the specimens. • If glucose and protein tests are requested, serum levels should be requested at the same

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Step	Action	Notes
	<ul style="list-style-type: none"> ○ Tube #3 – cell count • Deliver specimens to the laboratory immediately 	<ul style="list-style-type: none"> time. • Do not refrigerate specimens.
Laboratory	<ul style="list-style-type: none"> • If only 1 tube is sent, Microbiology tests are performed first, then cell counts and finally chemistry. • CSF specimens should be analyzed within one (1) hour from time of collection. Specimens > 1 hour old will be processed but include the comment "Results may be erroneous due to a delay in transit/processing". 	<ul style="list-style-type: none"> • Do not refrigerate specimens. • Send specimens ASAP to testing facility.

References:

- Capital Health Guide to Lab Services, Oct 29, 2007.
- CLSI document H56-A Body Fluid Analysis for Cellular Composition; Approved Guideline Volume 26 Number 26 - 2006

Related

Documents:

MIS-0018 Cerebrospinal Fluid Cultures
AHS Specimen Acceptance of Laboratory Samples & Test
Request Policy on Insite

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