

Processing of specimens

Mrs OHOUD S. ALHUMAIDAN

Processing of specimens

Processing of clinical specimens:

- 1- Macroscopic examination
- 2- Microscopic examination
- 3- Culture
- 4- Serology

Processing of specimens

* Specimens are:

1- skin, nail, hair

2- blood

3- CSF

4- biopsy tissue

5- sputum

6- urine

7- body fluids

8- bone marrow / 9- bronchial brush / 10- abscesses

Processing of specimens

**Important Not:*

- 1- for any body fluid we have to centrifuge it ex; urine, CSF
- 2- for the mucoid specimens ex; sputum >>> we have to add N-Acetyl L- Cysteine (NALC)
- 2- For the tissue >>> we have to do grinding with sterile saline

1- Macroscopic examination:

- 1- immediate collection of specimens
- 2- proper collection(proper container and should be in plastic bag)
- 3- labeling
- 4- a good quantity

2- Direct mount :

1-10% KOH

2-Giemsa stain

3-H&E stain

4-Gram stain

5- silver stain(GMSS)

6-Periodic Acid Schiff (PAS)

7-ZN stain

8- Negative stain

3- culture

A-Sterile site:

* General medium:

* Enriched medium

BHI

B-Un sterile site :

• General medium:

* Selective medium:

SDA-CC

Processing of specimens

4- Serology:

The specimen in serology is not being cultured but its being tested against Ab or Ag

*there are various techniques used in serology but the most common ones is C.I.E and R.I.D

Collection and processing of the specimen

1- hair, nail and skin:

We have to collect them in a sterile method in a Petridish

* Hair:

- The infected hair can be selected by using Wood's lamp (UV light)>>> green flourcens
- Hair that are fluorescent should be culture
- Check your note

Collection and processing of the specimen

* Nail:

- Check your note

- It is better to talk from several nails

Collection and processing of the specimen

*Skin:

-check your note

- NOT: For hair, nail and skin we will do DM with 10% KOH and culture

Collection & Processing of the specimen

2- Urine:

- urine should be collected in a sterile container as a first morning (mid stream) specimen
- check your note

-3-Sputum

- It should be collected as a first early morning sample after the patient teeth are brushed
- sputum is very viscous therefore we add N-Acetylcysteine in order to liquefy the sputum
- then we will centrifuge .finally we will take the deposit to do slide and culture
- check your note

Collection and processing of the specimen

4-Blood

- check your note
- A blood specimen must be cultured immediately
- there are two types of blood media:
 - 1-diphasic media
 - 2-bactec media

Collection and processing of the specimen

5-CSF:

- check it if its bloody or viscose
- CSF should be centrifuged at 2000 rpm for 10 min
- we take the deposit and place drops on the slide with Indian ink
- Also from the deposit we will do culture
- The supernatant fluid used for Ag analysis

6-Tissue

- we have to do grinding with sterile saline
- check your note