



## CSF Policy

**Priority:** STAT

**Sample:** 3 separate samples at the same setting

- 1- One sample is centrifuged for direct smear and cytological examination
- 2- Another one is left uncentrifuged for microbiological examination
- 3- The third sample is preserved

### Examination

A- **Physical:** volume, aspect, deposit, color

B- **Cytological:** for neutrophils and/or lymphocytes from the deposit of centrifuged sample

#### C- Microbiological examination

a) **direct smear:** stained by Gram and ZN stain (prepare the film from the deposit of centrifuged sample by dropping drop by drop of CSF and leave to dry, never spread

1- Gram stained smear:

- Gram positive or negative
- cocci or bacilli
- arrangement

2- ZN stained smear

b) **culture:** the sample is cultured on:

- blood agar
- chocolate agar
- MacConkey's agar

c) **preliminary antibiotic sensitivity:** done with positive or negative direct Gram stained smear

#### D- Bacterial antigen test

#### E- Notification system:

- 1- direct smear: if positive or negative immediate reporting
- 2- primary sensitivity
- 3- final report and identification after 48-72 hours