Review Article

BIOMEDICAL Journal of Scientific & Technical Research

ISSN: 2574 -1241 DOI: 10.26717/BJSTR.2024.55.008771

Annex 2

Laboratory Procedure

For Collection and Culturing of Urine Sample: Midstream urine specimen: - a specimen obtained from the middle part of urine flow:

A clean urine specimen was collected. The ideal technique uses "clean catch" urine, which is collected in the following ways:

- After thoroughly cleaning with soap and water, the genital region should be rinsed. This is done to prevent skin microorganisms from contaminating the sample of urine. A tiny amount of urine should be produced by the patient and disposed of.
- The next urine sample, known as the mid-stream specimen, needs to be collected into a 30- to 50-milliliter sterile container.
- The patient keeps urinating after the specimen is taken, and this is discarded.
- If the urine exhibits a noticeably alkaline or acidic response, including bacteria, cells, protein, or nitrite, a urine culture is necessary.
- For both blood agar and MacConkey agar, thoroughly mix the urine by repeatedly tilting the container. On blood agar and MacConkey agar, inoculate a loopful of urine using a sterile, calibrated wire loop.
- Only the loop needs to be dipped in the urine, and it must be held vertically. More pee will be injected than necessary if the stem is submerged as well.
- In addition to MacConkey agar, blood agar is advised for the quick identification of pathogens and for isolating hemolytic streptococci and other Gram-positive organisms that do not grow well or at all on MacConkey agar.
- For the duration of the night, inoculate the plates aerobically at 35–37°C.
- Calculating the number of microorganisms
- Estimating the estimated amount of bacteria in urine is required since normal specimens typically contain fewer than 10,000 (104) contaminating organisms per milliliter of urine. Untreated urinary infection patients typically have urine that has 100,000 (105) or more bacteria per milliliter. (Cheesbrough, 2004).