

A 28-year-old IV drug user male presented with fever on and off for last 2 weeks with tiredness. Clinician suspects bacterial endocarditis

Answer the following regarding blood culture sample collection for this case

- | | |
|--|---|
| 1. Describe the correct method of venepuncture site preparation | 1 |
| 2. The amount of blood , number of samples collected with the name of the media used | 2 |
| 3. Explain the reason for multiple sampling at intervals | 1 |
| 4. What is the most correct method of keeping the blood sample with media in case of any delay in transport to the laboratory? | 1 |

1)

Perform hand hygiene and use sterile gloves

Apply tourniquet, palpate the vein and mark the area

Use chlorhexidine/ providone iodine to disinfect the site, concentric inside out. Wait for 1 min. (allow the skin to dry)

Use 70% alcohol to disinfect the site upside down. Wait for 30 sec. (allow the skin to dry)

2) amount : 8-10 ml

- ❖ Two blood culture sets should be collected at an interval of >12hr between 1st and 2nd set
- ❖ Alternatively, three blood culture sets can be collected over one hour (e.g. 30 min gap between 1st and 2nd set and 30 min gap between 2nd and 3rd set).

Note: Blood culture set refers to 'pair of bottles'; collected from different venipuncture sites.

~ each set : 1 aerobic & 1 anaerobic bottles

Conventional culture media:

a) monophasic : BHI broth

b) biphasic : castaneda

3) It help to: increase the yield of diagnosis

~ determine intermittent bacteremia

~ Differentiate b/w commensals & pathogen

4) ~ keep at 35°C in an incubator (if available) or keep at room temperature.

~ never be refrigerated .

A 7-year-old boy was admitted to the hospital with complaints of high-grade fever, altered mental status and neck rigidity. Clinical diagnosis of acute bacterial meningitis is made

Answer the following regarding sample collection for this case

- | | |
|--|-------|
| 1. What is the sample collected? | 1/2 |
| 2. Describe the correct method of site preparation for sample collection | 3 1/2 |
| 3. What is the correct method of sample storage in case of any delay in transport? | 1 |

1) CSF

2) CSF is obtained by lumbar puncture under strict aseptic conditions.

~ Hand wash

~ wear hand glove

~ disinfect the site (b/w L3 & L4) with 70% alcohol & allow to dry.

~ disinfect with Povidone iodine in concentric inside out & allow to dry

~ collected CSF is divided into 3 sterile containers:

Cell count, biochemical analysis, bacteriological examination

3) keep in an incubator at 37°C

A 26 year old post LSCS patient has developed pain and discharge from surgical incision site

Answer the following regarding sample collection for this case

1. Describe the site preparation for correct way of swab collection 3
to avoid skin coloniser bacteria

2. Mention the required details to be filled in the request form 2
of this case

1) ~ surgical debridement
~ wash with sterile saline
~ sterile swab - from depth of wound without touching the superficial area
~ immediately transport to lab without any delay.

2) name
Age
Sex
IP no
Unit
Ward
Clinical symptoms
Provisional diagnosis
Sample & type
Treating physician

A 29-year-old female was admitted with complaints of cough with expectoration, Chest pain, evening rise of temperature and loss of weight for more than 1 month.
Chest xray showed left upper lobe cavity.

Answer the following regarding sample collection for this case

1. What is the sample collected for diagnosis of this case 1/2
2. What should be the correct instruction given to the patient for sample collection 3 ½
3. In case of any delay in transport what is the correct method of sample storage? 1

1) sputum

2) 2 samples are collected- spot & early morning.

~ early morning sample should be collected in empty stomach, after rinsing the mouth well.

~ ask patient to inhale deeply 2-3 times & cough out the sputum from chest during exhalation.

~ spit the sputum into wide mouthed screw capped container.

~ quantity : 3-5 ml

~ quality : thick & purulent (salivary / watery sample rejected)

3) refrigerated

A 50-year-old male patient admitted for spinal injury developed symptoms of dysuria and fever with chills. He is on urinary catheter for past 1 week

Answer the following regarding URINE sample collection for this case

1. Describe the proper method of urine sample collection in such cases, with specific mentioning on the collection site preparation

4

2. What are the steps taken in case of any delay in transport?

1

1) catheterised patient: urine is collected from proximal part of catheter tube after clamping distally,

- ~ disinfecting the proximal part with 70% alcohol

- ~ aspirate with a sterile needle & syringe.

- ~ do not collect from urobag.

2) if delay expected > 1-2 hrs,

- ~ refrigerated

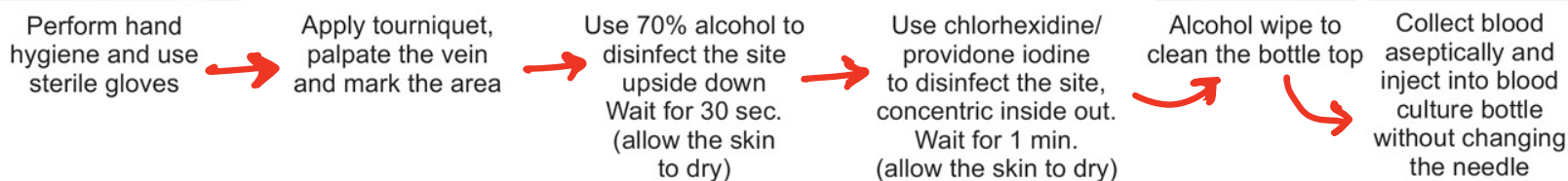
- ~ adding boric acid (upto 24 hrs)

A 12-year-old boy was admitted with high grade fever, abdominal pain, nausea and vomiting for past 5 days. On examination, tongue was coated and spleen was palpable

Answer the following regarding blood culture sample collection for this case

- | | |
|---|---|
| 1. Describe the correct method of venepuncture site preparation | 1 |
| 2. Mention the | |
| a) The amount of blood collected & volume of media for adults | 1 |
| b) The amount of blood collected & volume of media for children | 1 |
| 3. Explain the reason for diluting blood with media | 1 |
| 4. How should the blood sample with media to be kept in case of any delay in transport to the laboratory? | 1 |

1)



2) adult : 8-10 ml , 1:5 dilution
Children : 1-3 ml , 1:10 dilution

3) it help in the dilution of antimicrobial substances present in the collected blood.

4) keep at 35°C in an incubator (if available)
or keep at room temperature.
~ it never be refrigerated

A 30-year-old male patient came to the OPD with fever, chills and rigor and dysuria for past 2 days.

Answer the following regarding URINE sample collection for this case

1. What advise will you give on proper sample collection of urine for culture to this patient? 2
2. What all details should be there on sample bottle and on request form 2
3. In case of any delay in transport, what is the most correct method of sample storage? 1

1) ask the patient to properly clean the urethral meatus or glans

~ initial urine is discarded.

~ Clean voided midstream urine is collected

~ collection bottle: wide mouthed screw capped sterile container.

~ only 3/4 th of bottle is to be filled.

2) on bottle: name

Age

IP no

Sample

Request form:

name

Age

Sex

IP no

Unit

Ward

Clinical symptoms

Provisional diagnosis

Sample & type

Treating physician

3) if delay expected > 1-2 hrs,

~ refrigerated

~ adding boric acid (upto 24 hrs)

A 24-year-old female was admitted with fever, dysuria and increased frequency of micturition for past 3 days.

Answer the following regarding URINE sample collection for this case

- | | |
|--|---|
| 1. What advise will you give on proper sample collection of urine for culture to this patient? | 2 |
| 2. What all details should be there on sample bottle and on request form | 2 |
| 3. In case of any delay in transport, what is the most correct method of sample storage? | 1 |

1) ask the patient to properly clean the urethral meatus with water.

~ initial urine is discarded.

~ Clean voided midstream urine is collected

~ collection bottle: wide mouthed screw capped sterile container.

~ only 3/4 th of bottle is to be filled.

2) same as above qstn.

3) same as above qstn.