

STANDARD OPERATING PROCEDURE:	Blood Culture Sampling (Adults) incorporating Aseptic Non Touch Technique (ANTT)
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CONTENTS		PAGE NO.
1	AIMS	2
2	INTRODUCTION	2
3	ROLES AND RESPONSIBILITIES	2
4	ADULT BLOOD CULTURE SAMPLING CONSIDERATIONS	3
5	PATIENT INVOLVEMENT	3
6	EQUIPMENT REQUIRED	3
7	SAMPLING PROCEDURE	3
8	TRANSPORTATION TO LABORATORY	4
9	DOCUMENTATION	4
10	HUMAN RIGHTS ACT	5
11	ACCESSIBILITY STATEMENT	5

APPENDICES		
1	ANTT Poster	6

**AT ALL TIMES, STAFF MUST TREAT EVERY INDIVIDUAL WITH RESPECT
AND UPHOLD THEIR RIGHT TO PRIVACY AND DIGNITY**

1 Aims

- 1.1 To ensure that patient safety and wellbeing is not compromised by incorrect or inappropriate blood culture sampling procedures.
- 1.2 To reduce the risk of potential contamination, leading to a potential misdiagnosis.

2 Introduction

- 2.1 A large number of patients treated at Wrightington Wigan and Leigh NHS Foundation Trust require blood culture sampling as part of their treatment plan. A blood culture is a microbiological culture of blood. It is employed to detect infections that are spreading through the bloodstream, such as bacteraemia, septicaemia amongst others.
- 2.2 When a patient shows signs or symptoms of a systemic infection, results from a blood culture can verify that an infection is present, and can identify the type (or types) of microorganism that are responsible for the infection. However, negative growths do not exclude infection. Ideally blood culture sampling should be taken from a peripheral vein, however situations do arise that require central line blood culture sampling for details please refer to CG17-008 Care and Management of Central Lines Guideline.
- 2.3 Blood cultures should be taken before starting antibiotics. If the patient is already on antibiotics the cultures should be taken immediately before the next dose.

3 Roles and Responsibilities

- 3.1 It is the responsibility of Ward Managers to ensure that this skill is required in their clinical area prior to nominating staff members for training.
- 3.2 It is the responsibility of all staff members to ensure:
 - 3.2.1 That they adhere to this SOP and ensure their competency is maintained therefore reducing any potential risks. Competency is to be assessed every two years.
 - 3.2.2 Each individual practitioner is responsible for preventing microbial contamination of the blood culture sample by maintaining the principles of Aseptic Non Touch Technique (ANTT) throughout the sampling procedure
- 3.3 This procedure must be adhered to in all areas within the organisation where adult blood sampling is undertaken.
- 3.4 Adult blood culture sampling should be undertaken in accordance with WWL Blood Culture Policy.

4 Adult Blood culture sampling considerations

- 4.1 Blood should always be taken from a fresh venepuncture site.
- 4.2 Blood should not be taken through existing peripheral cannula or sites immediately above peripheral cannula.

5 Patient Involvement

- 5.1 Identify patient in accordance with trust policy.
- 5.2 Inform patient of blood culture sampling and discuss indications.
- 5.3 Gain informed consent from the patient to carry out procedure
- 5.4 Obtain a vessel health history from the patient to assess suitability of venepuncture.

6 Equipment Required

- 6.1 Blood Culture Pack containing vacuutiner, sterile tourniquet, 2 large 2% chlorhexadine and 70% alcohol wipes, gauze, dressing for venepuncture site and yellow clinical waste bag.
- 6.2 Blood Culture bottles, one aerobic (blue top) and one anaerobic (red top). The practitioner needs to clarify that the bottles have not passed the expiry date and are safe to use. The blood culture sample bottles contain a grey medium at the bottom, if this medium has turned yellow the bottles are no longer safe for use.
- 6.3 Frepp skin disinfectant.
- 6.4 Sharps Bin.
- 6.5 One pair of suitably fitting sterile gloves.
- 6.6 White clinical procedure apron.

7 Sampling Procedure

- 7.1 Clean hands with either soap and water or alcohol gel.
- 7.2 Clean trolley with SoChlor to prepare an aseptic field.
- 7.3 Gather equipment on lower shelf of trolley.
- 7.4 Proceed to patient, with all equipment.
- 7.5 Clean hands with either soap and water or alcohol gel.
- 7.6 Put on apron.
- 7.7 Open pack, remove waste bag and attach to trolley remove tourniquet and apply to patient.
- 7.8 Palpate vein and disinfect with Frepp, apply using back and forth motion for 30 seconds and allow drying for 30 seconds.

- 7.9 Disinfect top of blood culture bottles with 2% chlorhexidine and 70% alcohol wipe. Use one wipe each bottle.
- 7.10 Clean Hands with soap and water or alcohol gel.
- 7.11 Put on sterile gloves then assemble the vacutainer.
- 7.12 DO NOT REPALPATE VEIN.
- 7.13 Insert needle into prepared vein, observe chamber for blood flow.
- 7.14 Ensure chamber does not fall onto any surfaces such as the patient or bed.
- 7.15 Ensuring that bottles remain upright connect aerobic bottle (Blue) to chamber and fill to required level.
- 7.16 Remove aerobic bottle (Blue) and attach anaerobic bottle (Red) and fill to required level, remove anaerobic (Red) bottle.
- 7.17 Cover venepuncture site with gauze and release tourniquet.
- 7.18 Activate safety device on butterfly by pressing the triangle. If you remove the needle from the patient without activating the safety device please dispose of needle in a sharps container without activating.
- 7.19 Apply pressure to gauze to enable venestasis.
- 7.20 Apply suitable dressing to venepuncture site.
- 7.21 Label samples immediately at patient's bedside with all appropriate information, failure to ensure adequate labelling may result in the sample being rejected.
- 7.22 Dispose of clinical waste appropriately in accordance with infection control guidelines.
- 7.23 Clean trolley.
- 7.24 Wash hands with soap and water.
- 7.25 Fully document procedure as below.

8 Transportation to the Laboratory

Send the inoculated bottles to the Laboratory immediately. Outside of normal working hours the culture bottles should be placed in the 37°C incubator sited at the entrance to the Pathology Laboratories. Blood culture bottles must not be refrigerated. As blood culture bottles are plastic they can be transported using the pneumatic tube system.

9 Documentation

Ensure the procedure is documented clearly and legibly in the patient's medical notes, it is the responsibility of the sampling practitioner to ensure acceptable documentation. The practitioner must clearly record the venepuncture site, indication for sampling and that they have maintained all principles of ANTT. The practitioner also has the responsibility of

ensuring the blood culture log book is completed, all entries must be dated, timed signed and name printed.

10 Human Rights Act

Implications of the Human Rights Act have been taken into account in the formulation of this document and they have, where appropriate, been fully reflected in its wording.

11 Accessibility Statement

This document can be made available in a range of alternative formats eg large print, Braille and audio cd.

For more details, please contact the HR Department on 01942 77 3766 or email equalityanddiversity@wwl.nhs.uk

ANTT



Aseptic non touch technique

- 1** Wash hands, clean the aseptic field. Whilst tray dries, gather equipment etc.



- 2** Clean hands with soap and water or alcohol gel. Put on Apron



- 3** Open Pack,



- 4** Open Pack. Apply tourniquet. Locate Suitable vein.



- 5** Disinfect skin using Frepp. Apply back and forth for 30 seconds



Peripheral blood culture sampling

Wrightington, Wigan and Leigh NHS Foundation Trust **NHS**

You must be trained in the aseptic procedure before undertaking this practice. Remember: **ALWAYS** challenge colleagues if poor practice is observed

Your hospitals, Your health, Our priority

- 6** Leave to air dry for 30 seconds



- 7** Clean hands with alcohol gel or soap and water.



- 8** Apply sterile gloves.



- 9** Remove cap from blood culture bottle, clean with 2% chlorehexidine and 70% alcohol. (allow to dry for 30 secs)



- 10** **DO NOT repalpate vein.** Insert needle into the prepared site.

- 11** Ensuring bottle upright, connect to chamber and fill to required level.

FILL AEROBIC BOTTLE FIRST



- 12** Cover site with gauze, activate safety device on butterfly.



- 12** Label bottles – attach EPR sticker to request form, send bottles immediately to Lab via chute.



- 14** Dispose of waste appropriately, clean trolley and wash hands with soap and water. Document in case notes, complete blood culture log.



Key Principles of ANTT

- A**lways wash hands effectively.
- N**on touch technique always.
- T**ake appropriate equipment precautions.
- T**ake steps to always protect key parts.