Infection Prevention and Control

Blood Culture Policy
<table>
<thead>
<tr>
<th>Policy Title:</th>
<th>Blood Culture Policy</th>
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<tbody>
<tr>
<td><strong>Executive Summary:</strong></td>
<td>This policy details the clinical criteria for obtaining blood cultures by competent clinical staff using Aseptic Non touch technique (ANTT)</td>
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<tr>
<td>Supersedes:</td>
<td>V4 2015</td>
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<td>Minor wording changes to reflect practice and National Guidelines</td>
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<tr>
<td>This policy will impact on:</td>
<td>All clinical staff assessed as competent practitioners who undertake blood culture sampling</td>
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<td>Financial Implications:</td>
<td>None</td>
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<tr>
<td>Authors:</td>
<td>Wendy Morris Clinical Specialist Practitioner Infection Prevention and Control</td>
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<td>Impact Assessment Date:</td>
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**APPROVAL RECORD**

<table>
<thead>
<tr>
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<th>Date</th>
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<td>Consultation:</td>
<td>Infection Prevention and Control Group</td>
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<tr>
<td></td>
<td>February 2016</td>
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<tr>
<td>Approved by:</td>
<td>Director of Nursing Quality and Performance, Director of Infection Prevention and Control</td>
</tr>
<tr>
<td>Date</td>
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1. Introduction

Blood culture is the key investigation for diagnosis of sepsis, and used to detect the presence of bacteria (bacteraemia) and or fungi (fungemia) in blood and considered the gold standard (PHE 2014). Prompt accurate detection of bacteraemia and fungemia is important for improving patient care and clinical outcomes. Positive blood culture either establishes or confirms infectious aetiology of sepsis and provides the etiologic agent for antimicrobial susceptibility testing for optimisation of antibiotic therapy. Specimens for blood culture should be collected using an ‘aseptic non touch technique’, and handled according to the ‘standard precautions’.

Blood cultures **MUST** only be collected independently by staff assessed as competent to do so by a designated assessor at East Cheshire NHS Trust (referred to as “Trust” throughout this document), in order to mitigate the risk of contamination of blood culture specimens. Contaminated specimens expose patients to unnecessary / inappropriate treatment protocols, or to experience delay in receiving appropriate treatment. Contaminated samples also impede the Trust’s ability to comply with government targets i.e. MRSA bacteraemia trajectory and monthly skew/surveillance data used to demonstrate the Trust’s contribution towards reducing healthcare associated infections.

This policy must be read in conjunction with the Trust’s “Universal precautions for Infection Prevention and Control, ANTT and Waste policies”.

1.1 Organisational Responsibilities

- **The Chief Executive** has ultimate responsibility for the implementation and monitoring of the policies in use in the Trust. This responsibility may be delegated.
- **The Director of Nursing, Performance and Quality** will take the lead responsibility for the development and implementation of this policy with support from the Lead Nurse Infection Prevention and Control and the Infection Prevention and Control Doctor.
- **The Director of Infection Prevention and Control (DIPC)** will oversee the implementation of this policy, in addition to challenging bad practice. In addition they will provide assurance to the Board that systems and processes are in place to ensure compliance with agreed standards.
- **The Infection Prevention and Control Team (IPCT)** will have responsibility for ensuring the policy is implemented and monitored across the Trust. In addition they will ensure compliance with any national initiatives or directives; plus provide and support a sustainable programme of audit and education across the health economy.
- **All Employees** must ensure they are compliant with Infection Prevention and Control training and standards which are monitored through the appraisal process

2. Purpose

The purpose of this policy is to promote awareness regarding appropriate blood culture collection. Early identification of bloodstream infection enables appropriate decisions regarding antimicrobial therapies to be initiated.
3. Definitions

| Contamination | Results from inoculation of micro-organisms e.g. skin cells during specimen collection or processing that are not pathogenic to the patient i.e. not present in the patient’s blood at the time of specimen collection. Contamination is often associated with poor practitioner technique e.g. failure to decontaminate the venepuncture site effectively, re-palpation of the vein immediately prior to insertion of the venepuncture device, or poor laboratory management of the sample. |

4. Appropriate indications for performing Blood Cultures

Blood cultures should only be taken when there is reason to suspect infection, or as part of a patient care pathway e.g. pneumonia. They should not be taken for routine assessment. Reasons to suspect an infection and to consider taking blood cultures include:

- Core body temperature outside of the normal range >38° or <36° which signifies poor prognosis such as in septic shock
- Tachycardia, heart rate greater ≥90 beats per minute
- Tachypnoea: respiratory rate ≥20 breaths/minute
- Chills or rigors
- Unexplained deterioration in the patient’s condition
- Development of unexplained confusion
- Focal signs of infection
- White blood cell count outside of the normal range >12X10/L
- Patients with suspected Neutropenic Sepsis (i.e. chemotherapy within last 6 weeks).
- Feeling generally unwell +/-
- One or more symptom(s) of systemic inflammatory response syndrome.

5. Rationale for Blood Cultures

- To confirm infection, or specific diagnosis e.g., ‘Typhoid or Paratyphoid fever’, brucellosis.
- To isolate and identify pathogen(s) and perform antimicrobial drug susceptibilities to guide therapy
- To ‘de-escalate’ (empirical) antibiotic to targeted pathogen-specific therapy or ‘step down’ therapy to a suitable ‘narrow-spectrum’ antimicrobial agent, and/or ‘IV-to-Oral’ switch therapy based on antimicrobial susceptibility profile of isolated pathogen(s).
- To establish primary diagnosis, or to exclude infection in ‘High Risk’ patient populations i.e.
- Suspected Neutropenic sepsis
- History of fall/new onset of confusion in elderly
- “Febrile child” and “floppy baby” (neonatal infection screen, in accordance with the neonatal sepsis management guideline).
- Immunosuppressed host
- Fever in an intravenous drug user (IVDU)
- Liver Disease/Chronic kidney disease or end-stage renal failure
- Febrile hospitalised patients
- Patients with suspected nosocomial infections such as:
  - Catheter-associated urinary tract infection (CA-UTI)
• Catheter associated blood stream infection
• Hospital acquired/ventilator associated pneumonia
• Surgical site infection (SSI)
• Ascertainment or confirmation of microbial aetiology of focal infection.
• Osteomyelitis
• Septic arthritis / discitis
• Surgical site infection (SSI)
• Ascertainment or confirmation of microbial aetiology of focal infection.
• Osteomyelitis
• Septic arthritis / discitis
• Meningitis
• Cellulitis
• Pneumonia/empyema
• Complicated urinary tract infection (UTI) i.e. UTI in men, children and elderly, pyelonephritis, and UTI in patients with underlying urological abnormalities/urological interventions and those with CA-UTI
• Diagnose pyrexia of unknown origin, Typhoid/Paratyphoid fever, brucellosis, invasive fungal infection e.g. candidaemia
• To detect complications of focal infections such as osteomyelitis
• To establish diagnosis of endovascular infections e.g. infective endocarditis (IE)

6. Timing of Blood Culture
   a) Within the first hour of recognition of ‘sepsis’ prior to commencing antibiotic treatment, provided this does not significantly delay antibiotic administration
   b) Within a few minutes of noticing a spike in temperature. Collection of blood culture in a hypothermic patient is as important as in a patient who has pyrexia. Elderly patients and those on immunosuppressant therapy may become septic without demonstrating pyrexia.
   c) When already receiving antibiotics blood cultures should be collected just before the next dose is due, when the concentration of antibiotic in the blood is at its lowest point.
   d) In a patient with suspected infective endocarditis 3 sets of blood cultures should be collected over 24 hours.

7. Number of Blood Culture sets:
   A single culture set equates to; one anaerobic and one aerobic bottle filled with blood taken from a single venepuncture site.
   A Paired set (i.e., a “central” and a “peripheral set”) equates to; one anaerobic and one aerobic bottle filled with blood taken from each central line lumen, i.e. one set for a single lumen line, two sets for a double lumen line and so forth, plus a single peripheral venepuncture sample. Blood cultures should be collected from each lumen to aid diagnosis of catheter related blood stream infection (CRBSI). Blood culture bottles must be clearly labelled with the site of venepuncture / lumen prior to sending for analysis to indicate the venepuncture site / specimen collection site
   - Multi-lumen intravascular catheters such as skin tunneled catheters /Peripherally Inserted Central Venous Catheter (PICC) must be separately cultured from each lumen. One culture set per distal, medial and proximal lumen.
   - Central line bloods must be taken prior to peripheral bloods.
   - Short-term intravascular catheters such as internal jugular (IJ) CVP lines in ICU, one lumen only may be cultured.
• A separate peripheral set; collected almost simultaneously with in 20'-1 h should also be drawn.
• Bloods must not be taken from a vein from which an intravenous infusion is in being simultaneously infused.

7.1 **Newly sited cannula**: Blood cultures must only be taken from newly sited cannula as this constitutes a new venepuncture site. Newly inserted cannulae must not be flushed prior to blood cultures, or further venous samples being drawn. Blood cultures must be taken prior to all other samples. Once the cannula has been flushed, further blood samples must not be taken from the cannula. Blood samples taken from peripheral cannulae are associated with increased contamination rates.

7.2 **Needle and syringe**: The use of needle and syringe technique to perform venepuncture should be avoided. Needle safety equipment should be used to avoid the potential for needle stick injury, and to demonstrate compliance to best practice and health and safety regulations (European Directive 2010/32/EU, RCN 2013).

8. **Volume of blood to be drawn**
The volume of blood drawn for culture is important in the recovery of pathogenic organisms.
• Ideally 10mls of blood should be inoculated into one paired set i.e. 10mls into each bottle. In difficult circumstances 5mls may be sufficient.
• Failure to obtain 10mls of blood may result in false-negative cultures and inappropriate / delayed patient treatment.
• In neonates and children the level of bacteraemia i.e. of bacteria per unit volume of blood is generally greater than adults.
• For infants and younger children, the volume of blood drawn should be no more than 1% of the patient’s total blood volume.

<table>
<thead>
<tr>
<th>Age of patient</th>
<th>Recommended volume per set (ml)</th>
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<tr>
<td>Neonates – 1 year</td>
<td>0.1-1ml (inoculate aerobic [yellow] bottle only)</td>
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<tr>
<td>Children 1-6 Years</td>
<td>1 ml per year of age</td>
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<tr>
<td>Adults &amp; older children</td>
<td>10-20mls</td>
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• If the volume of blood is inadequate for two bottles the aerobic bottle (blue) should be inoculated first, and the rest then inoculated in anaerobic (purple) bottle.

9. **Repeat Blood Culture(s)**
Once bacteraemia is identified (i.e., ‘Positive’ blood culture) *repeating blood culture with every spike of temperature is unnecessary, except*:
• When there is clinical deterioration, and effective antimicrobial therapy has been given for at least 24 hours before change of antimicrobial therapy
• In critically ill patients in HDU/ITU
• In a neonate with suspected endovascular source

9.1 **Blood culture, however should be repeated**: 
• In a febrile patient without a focus of infection, if previous blood culture(s) have been negative.
• Whilst receiving ‘appropriate antimicrobial therapy’ in a febrile patient to identify breakthrough Bacteraemia
• In patients with Staphylococcus aureus (MSSA/MRSA) bacteraemia 72 h after therapy and Candida spp. fungaemia (14h after therapy) to check clearance and detect any metastatic seeding or complications such as IE, septic thrombophlebitis etc.

10. Reporting of Results
Positive Blood Culture:
• Preliminary (interim) results will be phoned through to the ward by the Consultant microbiologist / microbiology pathology team. A written report comprises of gram-stain result and microscopic morphology. A further telephone communication will confirm broader sensitivities
• A positive blood culture will be communicated by the Consultant microbiologist / microbiology pathology team to the clinical team on the day of the result. Results will be regularly updated on the Trust’s pathology system.
• The final report will comprise of antimicrobial susceptibility testing of the isolated microorganism.
• The standard incubation period for routine blood cultures is 5 days when a final report of cultures remaining negative is issued.
• Patients with suspected IE are cultured for 10 days

The results of blood cultures MUST be pro-actively followed up by medical staff through discussion with the Consultant medical microbiologist.

Empirical antimicrobial therapy MUST BE rationalised in light of blood culture results

11. Consent and documentation
Ensure the procedure is explained to the patient and consent obtained prior to performing blood cultures.

Patient identity must be ascertained against the pathology request card prior to venepuncture.

• A minimum of three patient identifiers must be documented on the pathology request card i.e. name, NHS/Hospital Number, DOB
• Additional information to include on the card; patient diagnosis, empirical antibiotic therapy, date & time of specimen collection, contact details of requesting physician, details of any recent foreign travel
• Pathology samples which do not fit this criterion may not be processed by the laboratory
• Danger of infection stickers must be placed on both request card and blood sample bottles if the patient has a blood borne virus
• Complete the laboratory request form with details such as clinical indication for culture, antibiotic treatment. A single request card must be completed for blood cultures if routine bloods are also requested.
12. **Preparation and inoculation of blood culture bottles:**

Central line bloods must *always* be taken prior to peripheral blood cultures.

- Ensure blood culture bottles are within use by date. Observe bottom of bottles to ensure they not yellow. If yellow, do not use the bottle as this means it is contaminated.
- Prior to use, remove caps from blood culture bottles and decontaminate septum with 70% v/v Isopropyl alcohol in 2% w/v chlorhexidine impregnated wipe scrub for 30 seconds on septum and around neck of bottles (one wipe per bottle), leave to dry for 30 seconds.
- When activated, hold each bottle vertically to observe when 10mls of blood has infused into the culture bottle. Holding culture bottles inverted has resulted in culture medium being infused into patients.
- Fill indicator lines run down the side of blood culture bottles. A biro mark may be made on this line to indicate when 10mls of blood has been inoculated into each bottle. Do not overfill bottles as this can result in false positive results.
- Blood cultures must not be refrigerated, store at room temperature.

12.1 **Labelling blood culture bottles**

- Do not label blood culture bottles with patient details until the blood sample has been successfully collected. Label samples at the patient’s bedside, to avoid incorrect labelling.
- Patient identity labels may be used, but must not inhibit inspection of the bottle bar code or lot numbers. A minimum of three patient identifiers must be evident on the bottle to reflect the pathology card. If any of the three identifiers are not evident, the sample may be rejected by the laboratory.
- Ensure the route of culture e.g. peripheral/central venous catheter (PICC, Portacath, Hickman etc.) is clearly documented on the pathology request card, and each blood culture bottle. For central venous catheters include which port has been sampled on both bottle and pathology card.
- Each culture bottle has a removable bar code. This must be left on the bottle to aid laboratory analysis.
- Complete patient label (included in blood culture pack) and place in medical notes together with rationale for blood culture.

```
Blood Culture Documentation

Patient's Name
DOB
Hospital No
Indication for Culture
Circle Method Venepuncture Arterial Central
Site of sample
Taken By (PRINT) Bleep/Ext Designation
Date Time
Annual ANTT update complete (Circle) Yes No Procedure undertaken using ANTT Chlorhexidine 2% in 70% Alcohol (ChloraPrep Frepp) Yes No Reason

Revised January 2014 IPC
```

- Arrange for transport to the laboratory Store at room temperature until collection, *NEVER* refrigerate.
13. Process for taking Central Venous Catheters and peripheral blood cultures

13.1 Blood culture and Central venous catheters (CVC) (taken using ANTT, see Trust policy for ANTT)

13.2 Equipment for taking blood cultures from CVC
- Pathology request card
- Clinically clean gloves
- Sterile gloves
- Clinically clean apron
- Sharps container
- 70% v/v Isopropyl alcohol in 2% w/v chlorhexidine impregnated wipes for decontamination of blood culture bottle septum and each micro-clave
- Blunt vacutainer needle used for accessing ports/cannula
- Blood culture vacutainer holder – one for each port
- Blood culture set(s)
- Microbiology antibiotic bottle – one for each port
- 10mls normal saline ampule – one for each port
- 10ml sterile syringe – one for each port

13.3 Process for undertaking CVC blood cultures
- Decontaminate hands thoroughly using liquid soap and water and dry.
- Put on clinically clean gloves and apron.
- Expose CVC to aid access, prepare patient and bed space. Remove gloves and apron, dispose of in correct waste receptacle. Decontaminate hands with liquid soap and water and dry.
- Prepare clinical area as per ANTT policy to maintain sterile field. Wearing fresh apron open and prepare equipment.
- Using ANTT process, scrub catheter hub with 70% v/v Isopropyl alcohol in 2% w/v chlorhexidine impregnated wipe for 30 seconds and allow to air dry (see ECT IV policy for accessing lines). Connect safety vacutainer collection set (blunt luer connection) into the hub of the catheter, protecting key parts. Insert antibiotic bottle into chamber, press down to pierce septum, and draw off 5mls of blood. This will be a mixture of old flush and blood which the laboratory will analyse. Remove bottle and replace with aerobic [blue] bottle, draw off 10mls of blood, then repeat process with anaerobic [purple] bottle, draw off another 10mls. Gently invert contents of each bottle to mix broth with blood when required sample is obtained. Flush port with 10mls sodium chloride 0.9% using push pause technique. Take further venous samples in correct order of draw according to Trust policy.
- Repeat above process for each CVC port until all samples have been obtained.
- Dispose of equipment in appropriate waste receptacle. Remove gloves and apron and decontaminate hands with liquid soap and water, dry.
- Complete documentation.

Once the CVC bloods have been taken complement with corresponding peripheral blood culture set.
14. Equipment for taking blood cultures from a peripheral venepuncture site:
- Pathology request card
- Clinically clean gloves
- Clinically clean apron
- Sharps container
- Tourniquet - preferably single disposable use.
- Sterile dressing
- 70% v/v Isopropyl alcohol in 2% w/v chlorhexidine impregnated applicator (FREPP) for skin decontamination
- 70% v/v Isopropyl alcohol in 2% w/v chlorhexidine impregnated wipes for decontamination of blood culture bottle septum
- Safety butterfly winged collection set
- Blood culture vacutainer holder
- Blood culture set(s)

14.1 Peripheral blood culture (taken using ANTT, see Trust policy for ANTT)
- Decontaminate hands thoroughly using liquid soap and water and dry.
- If the patient’s skin is soiled wash proposed venepuncture site with soap and water, dry thoroughly.
- Wash hands as per policy or decontaminate hands using hand sanitizer if clinically clean.
- Apply clinically clean gloves and apron.
- Apply tourniquet to patient’s arm and palpate vein to identify most appropriate venepuncture site.
- Decontaminate proposed venepuncture site with 70% v/v Isopropyl alcohol in 2% w/v chlorhexidine (FREPP) for 30 seconds using horizontal and vertical actions, leave site to air dry for 30 seconds. Do not re-palpate. If site is re-palpated the process must be repeated.
- Connect butterfly winged collection set to blood culture vacutainer holder. Support vein and introduce butterfly needle smoothly into vein. Look for flashback at chamber site. When evident insert aerobic [blue] bottle into vacutainer chamber and press down to pierce septum, draw off 10mls of blood then repeat process with anaerobic [purple] bottle, draw another 10mls. When completed gently invert contents of each bottle to mix the broth with blood. Take further venous samples in correct order of draw according to Trust policy.
- Following sample collection release tourniquet. Place sterile gauze over venepuncture site, remove winged collection set and activate needle safety device, apply pressure to venepuncture site to stem bleeding. Dispose of sharp immediately into sharps bin. Hold sterile dressing in place until bleeding has ceased.
- Remove gloves and apron. Dispose of all used equipment into appropriate waste receptacles. Decontaminate hands with liquid soap and water and dry thoroughly. Complete documentation and arrange transport of samples to laboratory.

14.2 Process for taking blood cultures from a freshly inserted peripheral intravenous cannula
Equipment for taking blood cultures from a peripheral cannula:
- Pathology request card
- Clinically clean gloves
- Clinically clean apron
• Sharps container
• Sterile gauze
• 70% v/v Isopropyl alcohol in 2% w/v chlorhexidine impregnated wipes for decontamination of blood culture bottle septum
• Blood culture vacutainer holder and blunt needle adapter
• Blood culture set

14.3 Blood culture taken from Peripheral cannula (taken using ANTT, see Trust policy for ANTT).

DO NOT FLUSH CANNULA PRIOR TO TAKING BLOOD CULTURES

• Following completion of the insertion of peripheral cannula.
• Using previously connected blunt needle adapter and vacutainer holder and stemming the flow of blood out of the peripheral cannula correctly introduce the vacutainer system into the neck of the cannula hub.
• Look for flashback at chamber site. When evident insert prepared aerobic [blue] bottle into vacutainer chamber and press down to pierce septum, draw off 10mls of blood then repeat process with anaerobic [purple] bottle, draw further 10mls. When completed gently invert contents of each bottle to mix the broth with blood. Take further venous samples in correct order of draw according to Trust policy.
• When drawing the blood out of the cannula ensure the arm is not elevated and the culture bottles are at a lower level than the cannula. This is important to prevent the culture medium being infused into the patient’s venous system. Take all further blood samples as per Trust policy.
• When the required blood samples have been taken flush the cannula to ensure patency and complete cannulation process as per Trust policy. The cannula must not be accessed again for purposes of blood collection.
• Remove gloves and apron. Dispose of all used equipment into appropriate waste receptacles. Decontaminate hands with liquid soap and water and dry thoroughly. Complete documentation and arrange transport of samples to laboratory.

15. Training

All clinical staff involved in invasive procedures must ensure they have undertaken the appropriate competency assessment training and relevant updates.

All clinical staff involved in obtaining blood cultures must have undergone ANTT and blood culture competency assessment in order to practice the skill independently.

16. Audit

Compliance with this policy will be audited annually by the Infection Prevention and Control, and the HITS team. Results will be presented to the Infection Prevention and Control Group.
References


Last accessed 12.03.15

Last accessed 12.03.15


Last accessed 12.11.14

Last accessed 12.11.14
Equality Analysis (Impact assessment)
Please START this assessment BEFORE writing your policy, procedure, proposal, strategy or service so that you can identify any adverse impacts and include action to mitigate these in your finished policy, procedure, proposal, strategy or service. Use it to help you develop fair and equal services. Eg. If there is an impact on Deaf people, then include in the policy how Deaf people will have equal access.

1. What is being assessed?

Blood Culture

Details of person responsible for completing the assessment:

- **Name:** Wendy Morris
- **Position:** Clinical Specialist Practitioner Infection Prevention and Control
- **Team/service:** Infection Prevention and Control

State main purpose or aim of the policy, procedure, proposal, strategy or service:

(usually the first paragraph of what you are writing. Also include details of legislation, guidance, regulations etc. which have shaped or informed the document)

Blood culture is the key investigation for diagnosis of sepsis, and used to detect the presence of bacteria (bacteraemia) and or fungi (fungemia) in blood. Prompt accurate detection of bacteraemia and fungemia is important for improving patient care and clinical outcomes. Positive blood culture either establishes or confirms infectious aetiology of sepsis and provides the etiologic agent for antimicrobial susceptibility testing for optimisation of antibiotic therapy. Specimen for blood culture should be collected using an ‘aseptic non touch technique’, and handled according to the ‘standard precautions’.

Blood cultures MUST only be collected independently by staff designated competent to do so in order to avoid contamination of the blood culture specimen. Contamination results from inoculation of micro-organisms e.g. skin cells during specimen collection or processing that are not pathogenic to the patient i.e. not present in the patient’s blood at the time of specimen collection. This is often due to poor technique of skin decontamination prior to venepuncture. Contaminated samples expose patients to the risk of unnecessary / inappropriate treatment protocols. Contaminated blood culture results also affect the Trust’s surveillance data, such as meeting national targets for reduction of healthcare associated infections such as MRSA, MSSA and E-coli bacteraemia.

2. Consideration of Data and Research
To carry out the equality analysis you will need to consider information about the people who use the service and the staff that provide it. **Think about the information below – how does this apply to your policy, procedure, proposal, strategy or service**

2.1 Give details of RELEVANT information available that gives you an understanding of who will be affected by this document
Cheshire East (CE) covers Eastern Cheshire CCG and South Cheshire CCG. Cheshire West & Chester (CWAC) covers Vale Royal CCG and Cheshire West CCG. In 2011, 370,100 people resided in CE and 329,608 people resided in CWAC.

**Age:** East Cheshire and South Cheshire CCG’s serve a predominantly older population than the national average, with 19.3% aged over 65 (71,400 people) and 2.6% aged over 85 (9,700 people).

Vale Royal CCGs registered population in general has a younger age profile compared to the CWAC average, with 14% aged over 65 (14,561 people) and 2% aged over 85 (2,111 people).

Since the 2001 census the number of over 65s has increased by 26% compared with 20% nationally. The number of over 85s has increased by 35% compared with 24% nationally.

**Race:**
- In 2011, 93.6% of CE residents, and 94.7% of CWAC residents were White British.
- 5.1% of CE residents, and 4.9% of CWAC residents were born outside the UK – Poland and India being the most common.
- 3% of CE households have members for whom English is not the main language (11,103 people) and 1.2% of CWAC households have no people for whom English is their main language.

**Gender:**
- In 2011, c. 49% of the population in both CE and CWAC were male and 51% female. For CE, the assumption from national figures is that 20 per 100,000 are likely to be transgender and for CWAC 1,500 transgender people will be living in the CWAC area.

**Disability:**
- In 2011, 7.9% of the population in CE and 8.7% in CWAC had a long term health problem or disability.
- In CE, there are c.4500 people aged 65+ with dementia, and c.1430 aged 65+ with dementia in CWAC. 1 in 20 people over 65 has a form of dementia.
- Over 10 million (c. 1 in 6) people in the UK have a degree of hearing impairment or deafness.
• C. 2 million people in the UK have visual impairment, of these around 365,000 are registered as blind or partially sighted.
• In CE, it is estimated that around 7000 people have learning disabilities and 6500 people in CWAC.
• Mental health – 1 in 4 will have mental health problems at some time in their lives.

Sexual Orientation:
• CE - In 2011, the lesbian, gay, bisexual and transgender (LGBT) population in CE was estimated at 18,700, based on assumptions that 5-7% of the population are likely to be lesbian, gay or bisexual and 20 per 100,000 are likely to be transgender (The Lesbian & Gay Foundation).
• CWAC - In 2011, the LGBT population in CWAC is unknown, but in 2010 there were c. 20,000 LGB people in the area and as many as 1,500 transgender people residing in CWAC.

Religion/Belief:
The proportion of CE people classing themselves as Christian has fallen from 80.3% in 2001 to 68.9% in 2011 and in CWAC a similar picture from 80.7% to 70.1%, the proportion saying they had no religion doubled in both areas from around 11%-22%.
• Christian: 68.9% of Cheshire East and 70.1% of Cheshire West & Chester
• Sikh: 0.07% of Cheshire East and 0.1% of Cheshire West & Chester
• Buddhist: 0.24% of Cheshire East and 0.2% of Cheshire West & Chester
• Hindu: 0.36% of Cheshire East and 0.2% of Cheshire West & Chester
• Jewish: 0.16% of Cheshire East and 0.1% of Cheshire West & Chester
• Muslim: 0.66% of Cheshire East and 0.5% of Cheshire West & Chester
• Other: 0.29% of Cheshire East and 0.3% of Cheshire West & Chester
• None: 22.69% of Cheshire East and 22.0% of Cheshire West & Chester
• Not stated: 6.66% of Cheshire East and 6.5% of Cheshire West & Chester

Carers:
• In 2011, nearly 11% (40,000) of the population in CE are unpaid carers and just over 11% (37,000) of the population in CWAC.

2.2 Evidence of complaints on grounds of discrimination: (Are there any complaints or concerns raised either from patients or staff (grievance) relating
2.3 Does the information gathered from 2.1 – 2.3 indicate any negative impact as a result of this document?

None.

3. Assessment of Impact

Now that you have looked at the purpose, etc. of the policy, procedure, proposal, strategy or service (part 1) and looked at the data and research you have (part 2), this section asks you to assess the impact of the policy, procedure, proposal, strategy or service on each of the strands listed below.

**RACE:**
From the evidence available does the policy, procedure, proposal, strategy or service affect, or have the potential to affect, racial groups differently?

Yes ☐  No x

**Explain your response:** In order to explain the requirements of the policy to people whose first language is not English, e.g. to obtain consent, the staff will follow the interpretation policy.

**GENDER (INCLUDING TRANSGENDER):**
From the evidence available does the policy, procedure, proposal, strategy or service affect, or have the potential to affect, different gender groups differently?

Yes ☐  No x

**Explain your response:** No impacts identified.

**DISABILITY**
From the evidence available does the policy, procedure, proposal, strategy or service affect, or have the potential to affect, disabled people differently?

Yes x  No ☐

**Explain your response:** For disabled patients, assistance and/or communication support may be required to explain and obtain consent. There is a photo journey for patients with limited understanding to help explain the procedure of taking blood.
AGE:
From the evidence available does the policy, procedure, proposal, strategy or service, affect, or have the potential to affect, age groups differently?

   Yes ☐ No x

Explain your response: Assistance will be given to ensure understanding of the procedure – parents/carers can be involved with young patients.

LESBIAN, GAY, BISEXUAL:
From the evidence available does the policy, procedure, proposal, strategy or service affect, or have the potential to affect, lesbian, gay or bisexual groups differently?

   Yes ☐ No x

Explain your response: No impact identified.

RELIGION/BELIEF:
From the evidence available does the policy, procedure, proposal, strategy or service affect, or have the potential to affect, religious belief groups differently?

   Yes No X

Explain your response: No impacts identified.

CARERS:
From the evidence available does the policy, procedure, proposal, strategy or service affect, or have the potential to affect, carers differently?

   Yes  No x

Explain your response: Carers will be involved in explanations and the process where this will help the patient to understand and therefore have the blood test.

OTHER: EG Pregnant women, people in civil partnerships, human rights issues.
From the evidence available does the policy, procedure, proposal, strategy or service affect, or have the potential to affect any other groups differently?

   Yes ☐ No x

Explain your response: No other impacts identified.

4. Safeguarding Assessment - CHILDREN
a. Is there a direct or indirect impact upon children?

   Yes ☐ No x

b. If yes please describe the nature and level of the impact (consideration to be given to all children; children in a specific group or area, or individual children. As well as consideration of impact now or in the future; competing / conflicting impact between different groups of children and young people: See section on age.

c. If no please describe why there is considered to be no impact / significant impact on children.

5. Relevant consultation
Having identified key groups, how have you consulted with them to find out their views and that the made sure that the policy, procedure, proposal, strategy or service will affect them in the way that you intend? Have you spoken to staff groups, charities, national organisations etc.?

Consultation has occurred through the Infection Prevention and Control group which is multidisciplinary and includes a member of the public.

Review Date: 217.2.2018

7. Any actions identified:  
Have you identified any work which you will need to do in the future to ensure that the document has no adverse impact?

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<thead>
<tr>
<th>Action</th>
<th>Lead</th>
<th>Date to be Achieved</th>
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8. Approval:  
At this point, you should forward the template to the Trust Equality and Diversity Lead lynbailey@nhs.net  
Approved by Trust Equality and Diversity Lead:  

Date: 17.2.16