

University Hospitals Coventry and Warwickshire NHS Trust

Obtaining a Venous blood sample & Obtaining a blood culture sample: Doctors Practice development 2025

Theory Refresher



Pre procedure checks

Patient Identification

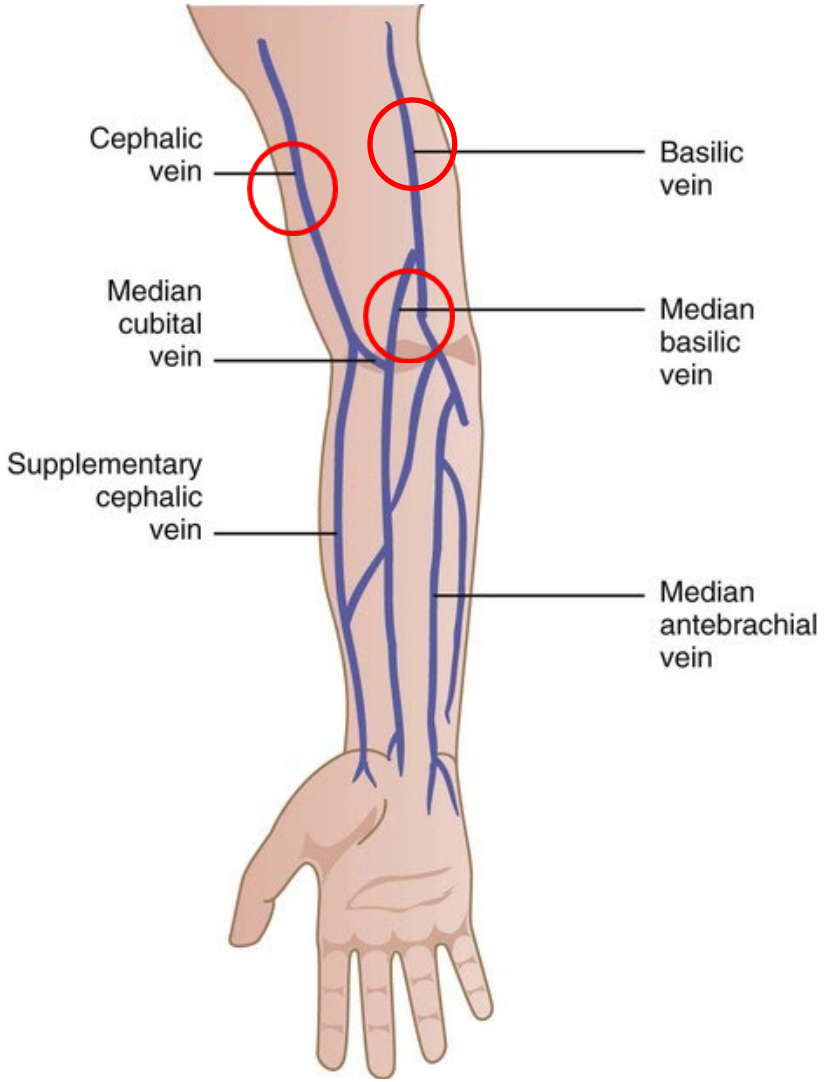


Verbal consent

Patient procedure preparation



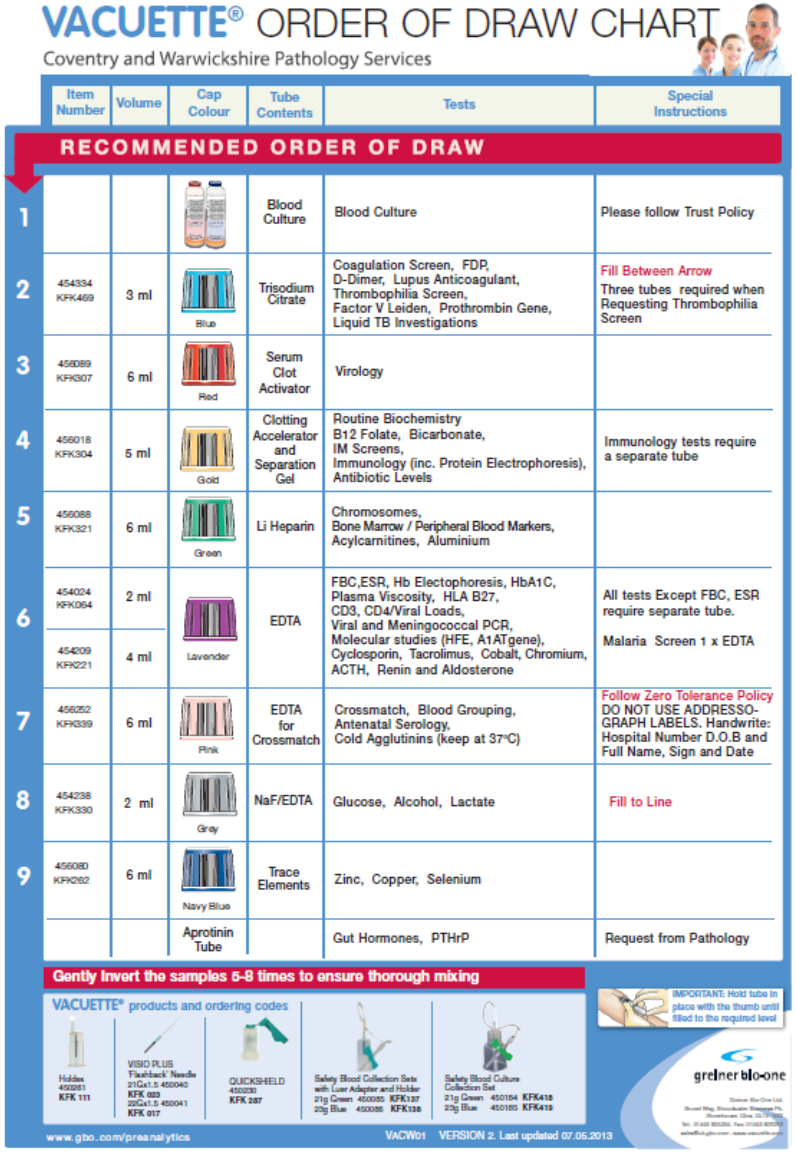
Vein Selection



A good vein

- Is visible
- Is soft and bouncy
- Refills when it has been depressed
- Is straight
- Has a large lumen
- Is well supported/anchored

Accuracy In sampling



VACUETTE® ORDER OF DRAW CHART

Coventry and Warwickshire Pathology Services

	Item Number	Volume	Cap Colour	Tube Contents	Tests	Special Instructions
	RECOMMENDED ORDER OF DRAW					
1				Blood Culture	Blood Culture	Please follow Trust Policy
2	454334 KFK469	3 ml	Blue	Trisodium Citrate	Coagulation Screen, FDP, D-Dimer, Lupus Anticoagulant, Thrombophilia Screen, Factor V Leiden, Prothrombin Gene, Liquid TB Investigations	Fill Between Arrow. Three tubes required when Requesting Thrombophilia Screen
3	456089 KFK307	6 ml	Red	Serum Clot Activator	Virology	
4	456018 KFK304	5 ml	Gold	Clotting Accelerator and Separation Gel	Routine Biochemistry B12 Folate, Bicarbonate, IM Screens, Immunology (inc. Protein Electrophoresis), Antibiotic Levels	Immunology tests require a separate tube
5	456088 KFK321	6 ml	Green	Li Heparin	Chromosomes, Bone Marrow / Peripheral Blood Markers, Acylcarnitines, Aluminium	
6	454024 KFK064	2 ml	Lavender	EDTA	FBC,ESR, Hb Electophoresis, HbA1C, Plasma Viscosity, HLA B27, CD3, CD4/Viral Loads, Viral and Meningococcal PCR, Molecular studies (HFE, A1ATgene), Cyclosporin, Tacrolimus, Cobalt, Chromium, ACTH, Renin and Aldosterone	All tests Except FBC, ESR require separate tube. Malaria Screen 1 x EDTA
	454209 KFK221	4 ml				
7	456052 KFK339	6 ml	Pink	EDTA for Crossmatch	Crossmatch, Blood Grouping, Antenatal Serology, Cold Agglutinins (keep at 37°C)	Follow Zero Tolerance Policy DO NOT USE ADDRESSO-GRAPH LABELS. Handwrite: Hospital Number D.O.B and Full Name, Sign and Date
8	454238 KFK330	2 ml	Grey	NaF/EDTA	Glucose, Alcohol, Lactate	Fill to Line
9	456080 KFK262	6 ml	Navy Blue	Trace Elements	Zinc, Copper, Selenium	
			Aprotinin Tube		Gut Hormones, PTHrP	Request from Pathology

Gently Invert the samples 5-8 times to ensure thorough mixing

VACUETTE® products and ordering codes

Holder 450281 KFK 111

VISIO PLUS Flashback Needle 21Gx1.5 450040 KFK 023; 22Gx1.5 450041 KFK 017

QUICKSHIELD 450230 KFK 287

Safety Blood Collection Sets with Luer Adapter and Holder 21g Green 450035 KFK137; 23g Blue 450086 KFK138

Safety Blood Culture Collection Set 21g Green 450184 KFK418; 23g Blue 450185 KFK419

IMPORTANT: Hold tube in place with the thumb until filled to the required level

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www.gbo.com/preanalytics VACW01 VERSION 2. Last updated 07.05.2013

- Adhere to the order of draw:
  - -To avoid contamination
  - -To ensure accurate results.
- Invert samples at least 6 times to mix with additive and prevent coagulation of sample.
- Avoid limbs with fluids/medications running as samples will be diluted.
- Do not ask patient to ‘pump’ the fist as this will alter some electrolyte levels.
- Always take blood cultures first.

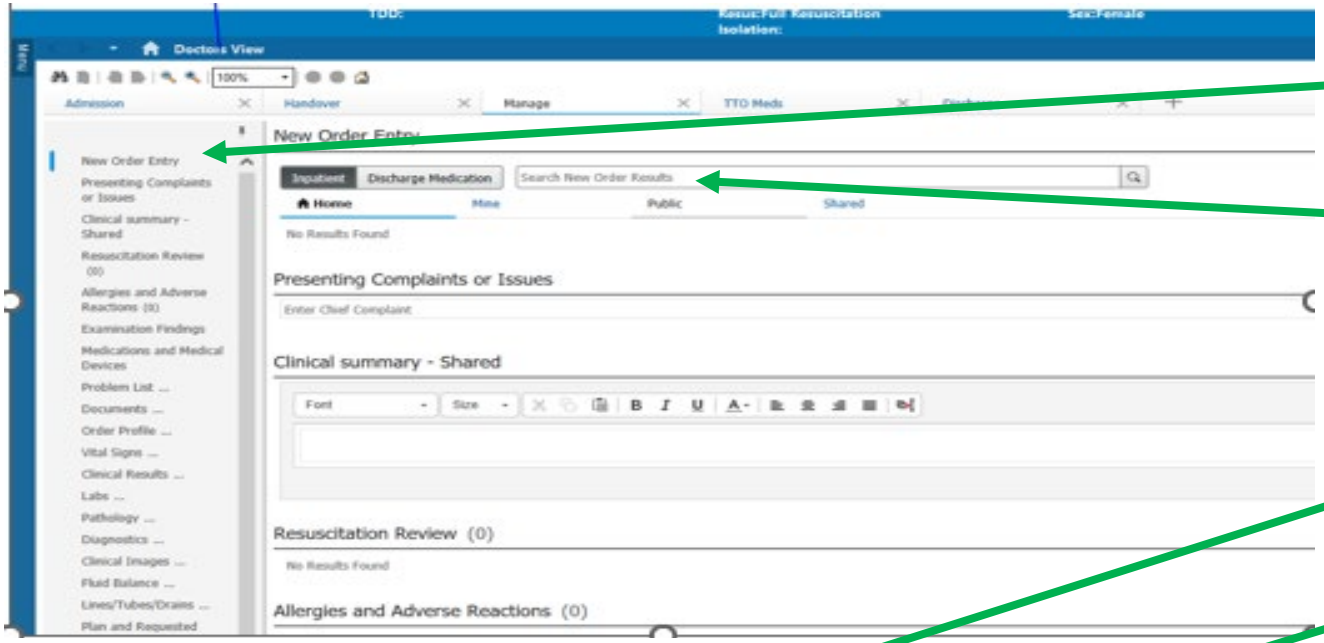
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Equipment

Standard Venepuncture	 VISIO PLUS 'Flashback' Needle (21g or 22g) +  QUICKSHIELD Safety Holder
Difficult Veins	 Safety Blood Collection Set with holder (21g or 23g)
In-situ Line and Cannulae	 Holdex® Holder
Transfer from a Syringe	 Blood Transfer Unit
Blood Cultures	 Safety Blood Culture Collection Set with Blood Culture bottle adapter (21g or 23g)

Note: Venepuncture with a syringe and needle is not recommended, however, if absolutely necessary, blood should only be transferred into the Vacutainer using the appropriate transfer unit.

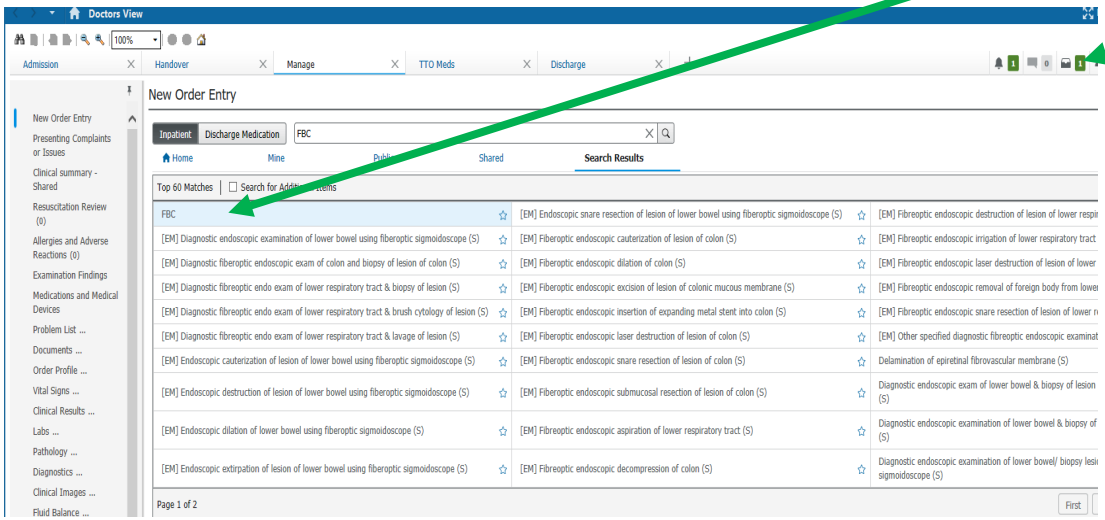
EPR – Ordering/Requesting Bloods



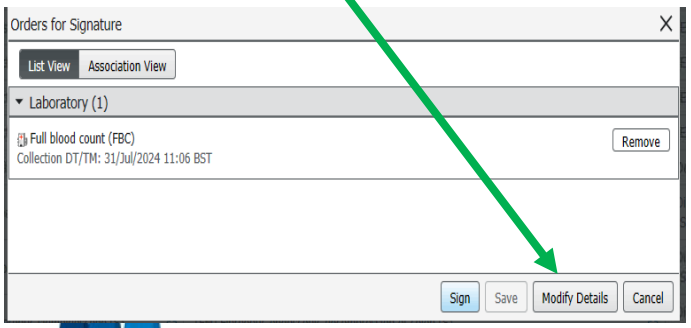
Order blood via New Order Entry

Use the drop-down box to order bloods

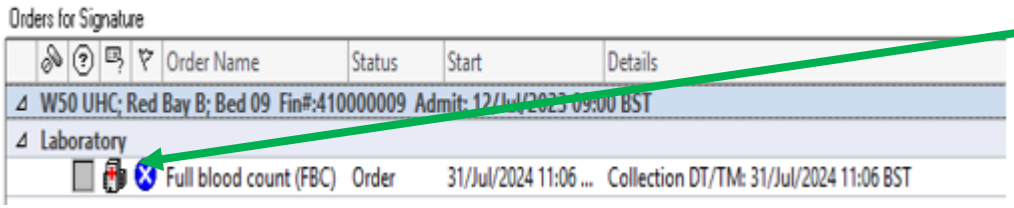
Select required bloods from list by clicking it, This request will now appear in your basket, double click on the basket,



If the bloods in the below window are correct, select modify

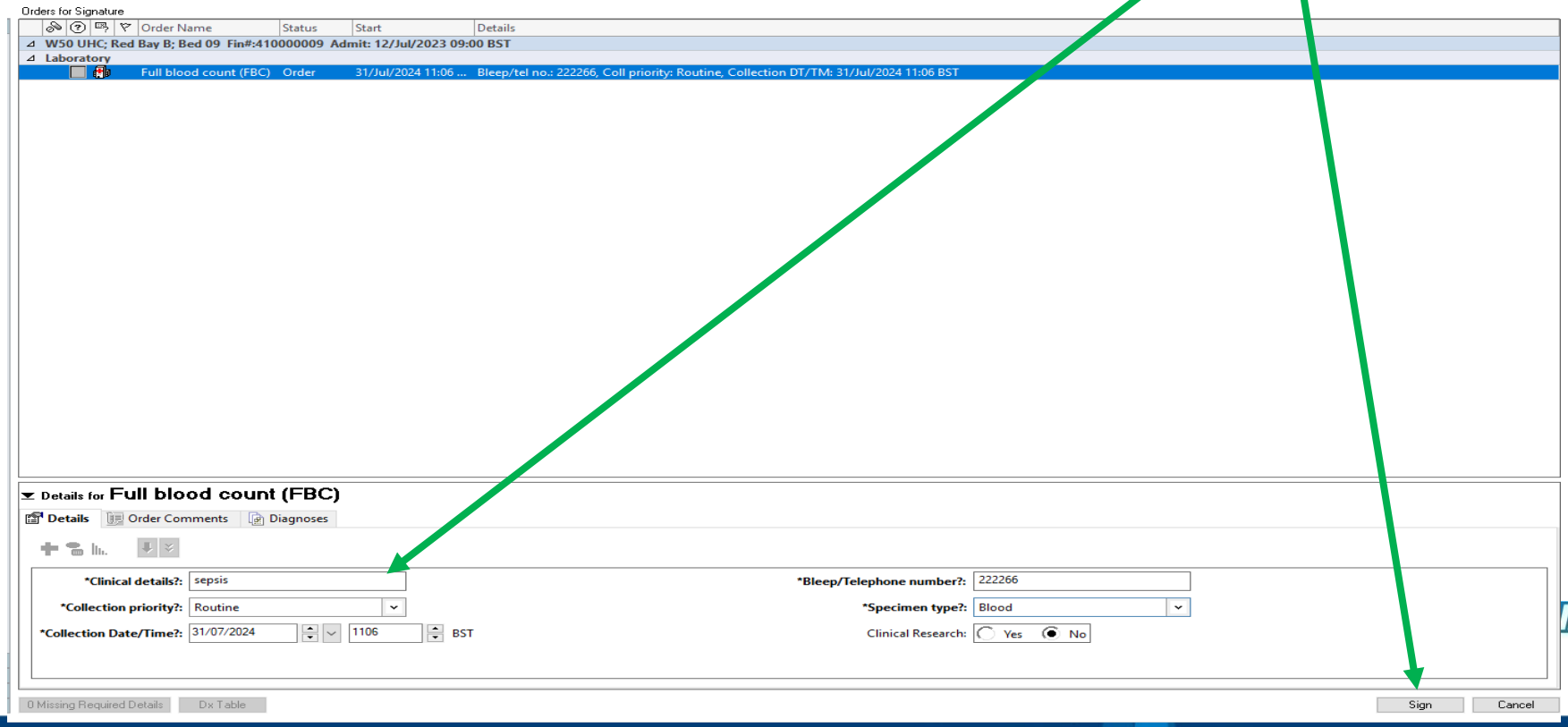


EPR – Ordering Bloods

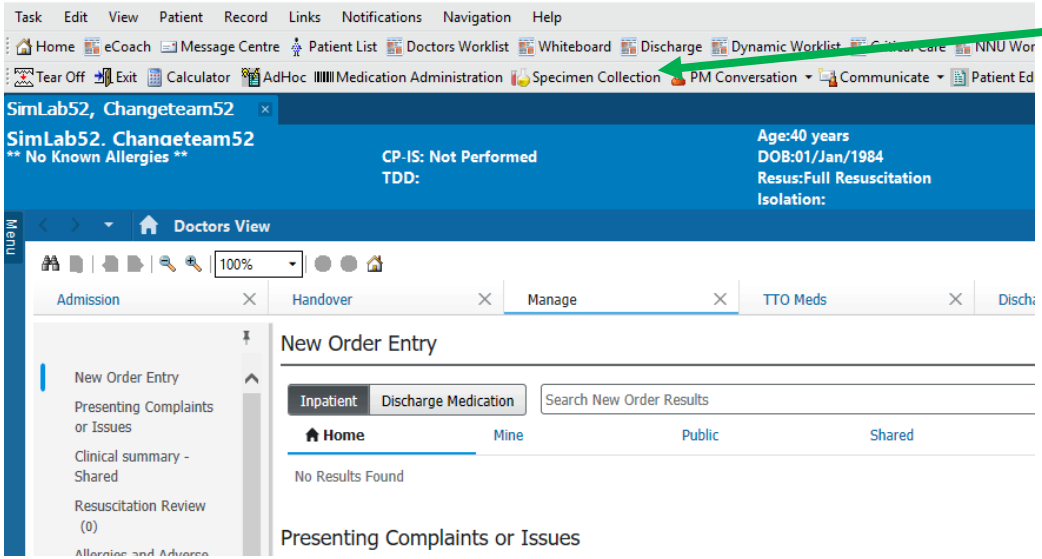


The blue circle and white cross means there is additional information that is required, double click this icon to complete the additional information

Complete all mandatory fields below and sign the form

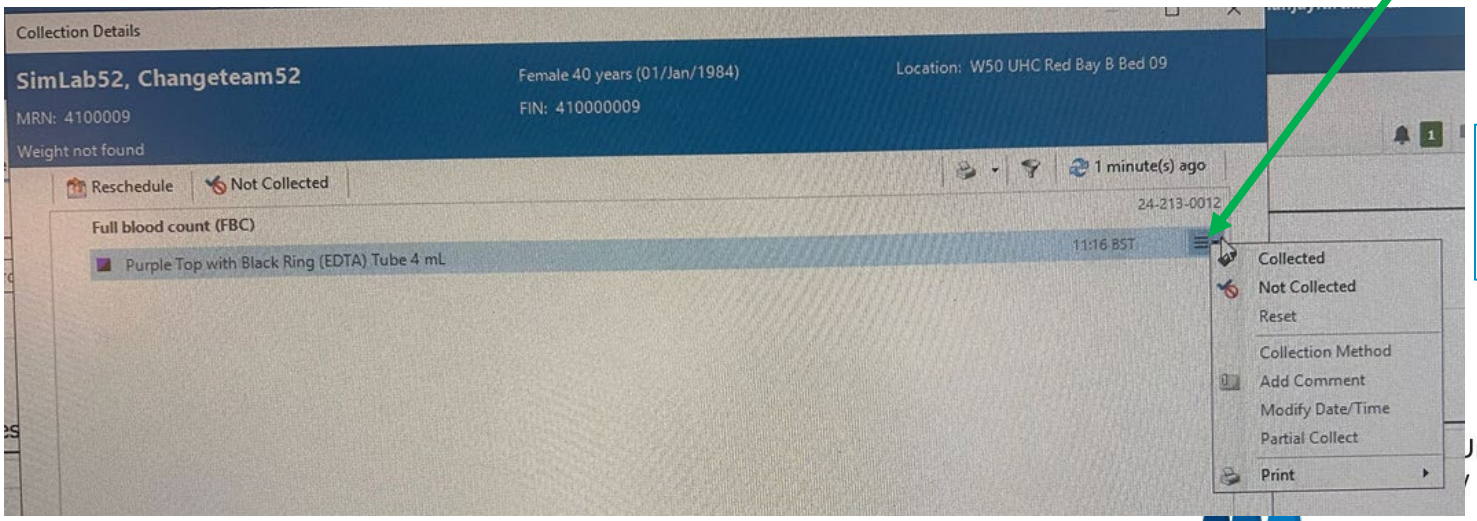


Specimen collection



To collect a blood specimen, use the Specimen collection button in the grey tool bar

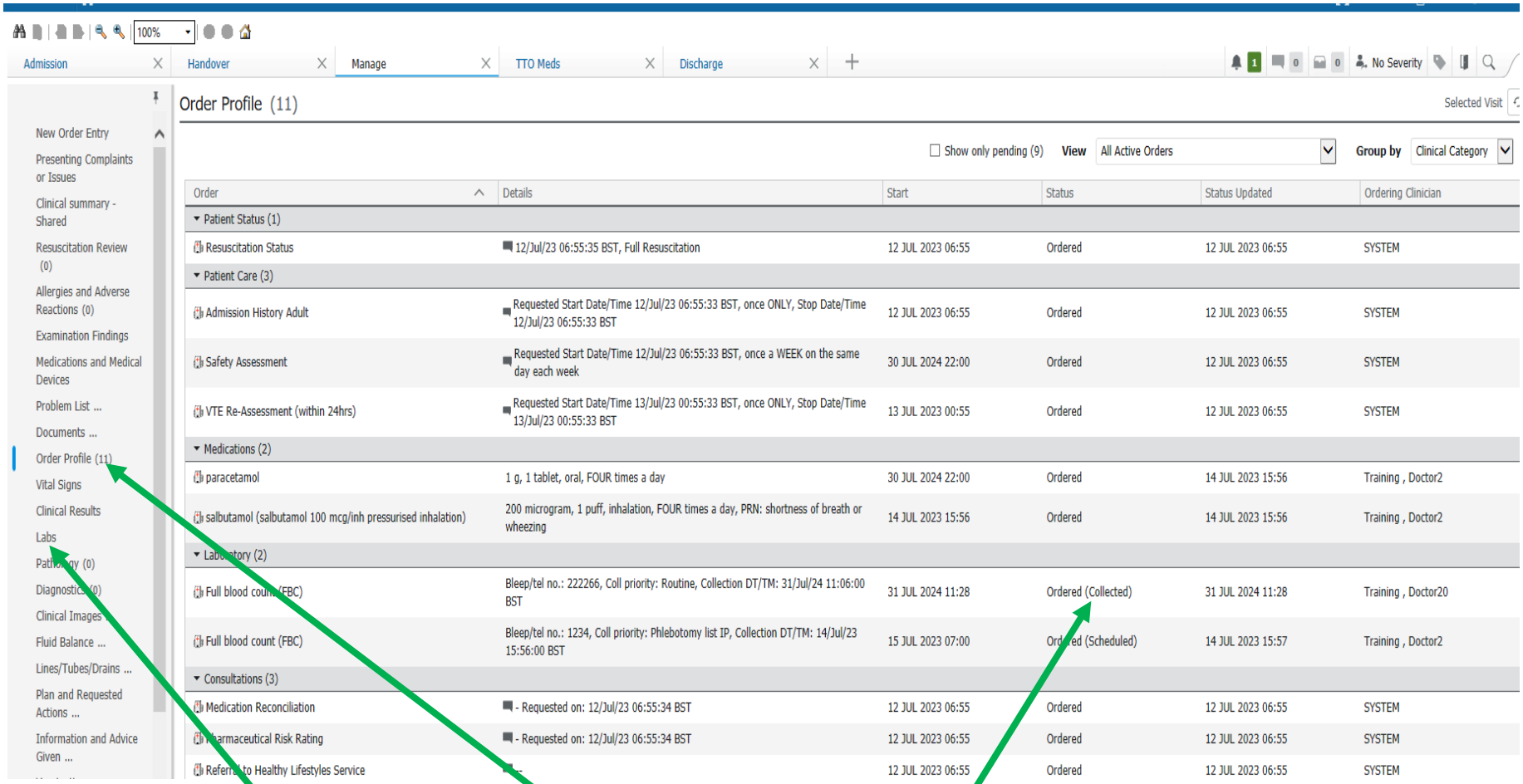
Labels must be printed first, use the three-line button, select print.
Once you have successfully collected the patients' blood select collected sign the request at the bottom of the form



Note: If you use the collection button first, you will not be able to print labels via this tab.

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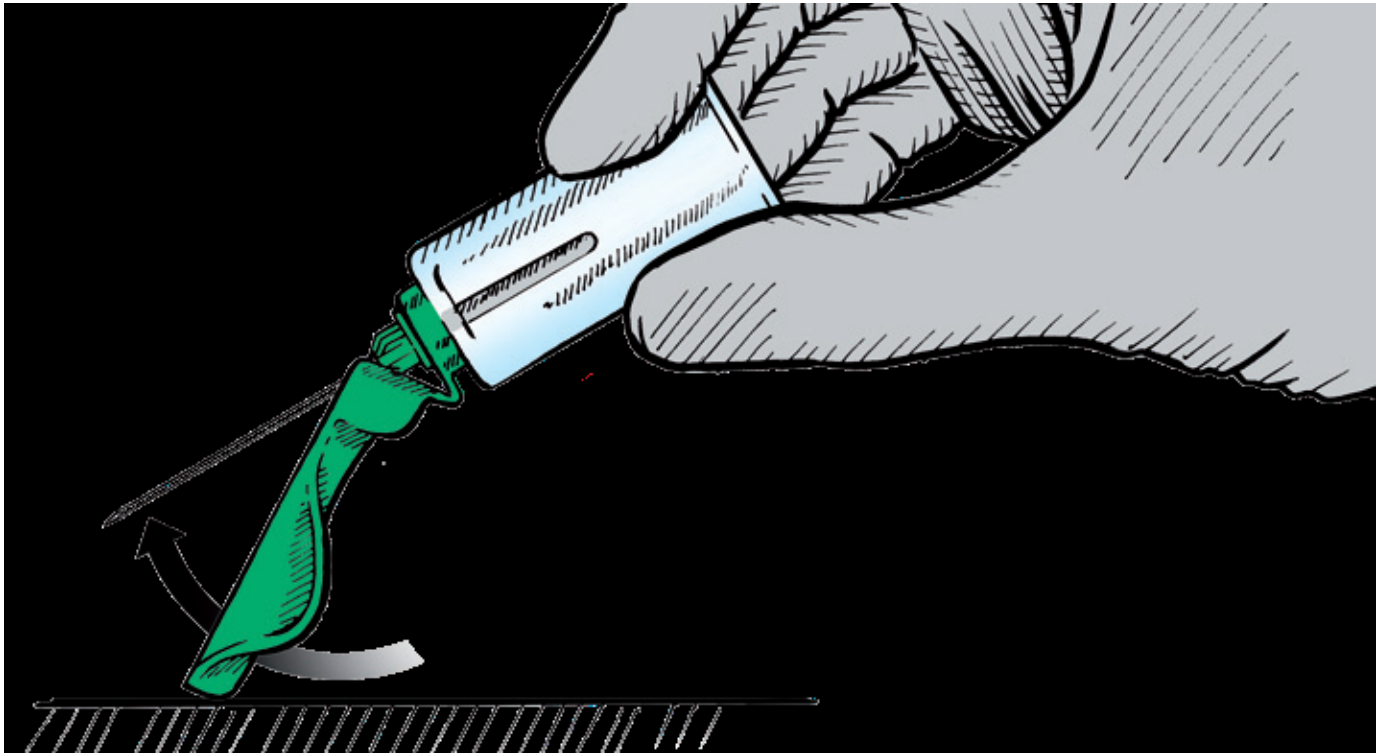
Review sample



To review all samples that have been ordered and collected, select order profile in the grey tool bar, you will be able to see if the sample has been ordered or collected by reviewing the status column. To review blood results, select Lab in the grey tool bar

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Sharps Safety



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Reporting Sharps Injuries







Datix®



Tourniquet Application

- Button Tourniquet – single patient use only
- Place tourniquet a palms width from the puncture site
- You should be able to place 2 fingers underneath the tourniquet
- Apply the tourniquet to aid vein selection, then remove prior to cleaning
- Clean the area for 30 seconds using a cross hatch technique and allow to dry for 30 seconds
- Reapply when site has dried and do not re-palpate
- Should not be left on for more than 60 seconds

Principles for Aseptic Non Touch Technique

Protect Patients by:

- Ensure effective Hand washing
- Environment cleaning

Protect yourself by:

Personal Protective Equipment

Identification of Key-Parts & Key Sites

- Key-Parts are the critical parts of the procedure equipment that if contaminated are most likely to cause infection e.g. a needle tip
- Key-Sites are the critical sites of the patient that if contaminated are most likely to cause infection e.g. phlebotomy site
- The parts and sites you should not touch

Aseptic Field Management

- Aseptic Fields protect Key-Parts from the immediate procedure environmen

Product information- Cleaning











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Blood cultures

- 1st sample on order of draw if taking other bloods
- Use a butterfly needle and large vacutainer
- Use a blue wipe to clean the tops of the bottles for 30 seconds and allow to dry for 30 seconds
- A blood culture sample contains 2 bottles – a blue bottle (aerobic) and a red bottle (anaerobic)
- Take the blue aerobic 1st
- Keep bottles upright, so that you can see the 5ml increments on the bottles.
- 10mls blood into each bottle

Taking Blood Cultures Using a Safe Needle Collection System

IMPORTANT

- **Always wash hands before taking blood cultures**
- **If blood is being drawn for other investigations always take blood cultures first**
- **Only take blood cultures if the patient is for active treatment with antibiotics**

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South Warwickshire NHS Foundation Trust

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Step 1



Collect blood culture pack. Remove contents and place in clean tray. Make sure all items to be used are in expiry date.

Step 2



Use Winged Safety Blood Collection Set supplied in pack. DO NOT USE NEEDLE AND SYRINGE!

Step 3



Clean appropriate vein site as per Trust policy for 30 seconds. **Leave to dry for 30 seconds.** **Do not re-palpate vein.**

Step 4



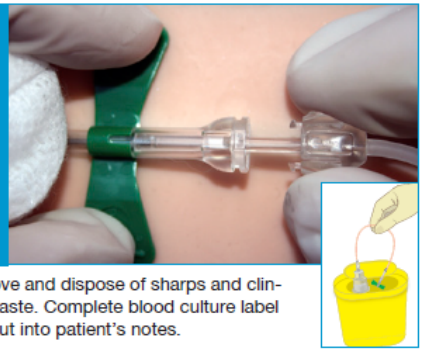
Remove caps from blood culture bottles and clean bottle tops with a 2% Chlorhexidine with 70% alcohol steret (PDI). Leave for 30 seconds to dry.

Step 5



Gain venous access with the winged blood collection set. You may secure device with surgical tape (micropore). Standing blood culture bottle upright insert into adapter cap to gain sample (approx 10 mls).
Fill blue (aerobic) bottle first and then red (anaerobic) bottle. Invert bottles to thoroughly mix specimen.

Step 6



Remove and dispose of sharps and clinical waste. Complete blood culture label and put into patient's notes.

- **Activate safety mechanism before removal from the vein.**
- **Ensure needle is fully locked by withdrawing it fully until an audible click is heard.**
- **Once removed Dispose of into sharps container.**
- **Complete blood culture label and put into patient's notes.**

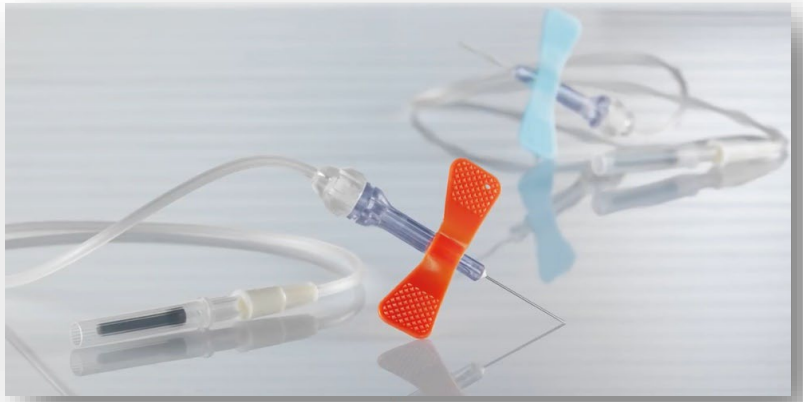
The Instructions contained within this document outline the policies and practices of the named Facility.

VACUETTE® PRODUCTS	MPC	NPC	Unit of Issue
Blood Culture Holder	450181	KFK796	40
Safety Blood Collection Set with Luer Adapter, 21g (green) 19cm tubing	450081	KFK134	50
Safety Blood Collection Set with Luer Adapter, 21g (green) 19cm tubing	450082	KFK136	50

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Greiner blood collection devices
Demo Videos





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Any questions?

