Eastern Pathology Alliance NHS

GUIDANCE FOR BLOOD SAMPLE COLLECTION, CENTRIFUGATION AND STORAGE PRIOR TO TRANSPORT TO SPECIMEN RECEPTION AT THE NORFOLK AND NORWICH UNIVERSITY HOSPITAL

This document contains information regarding:

1. The sample types and tests suitable for centrifugation and/or overnight storage prior to transport to the Eastern Pathology Alliance Specimen Reception at the Norfolk and Norwich University Hospital.

2. Setting up and using a centrifuge to spin clotted SST (yellow top) tubes in readiness for storage.

3. The steps to take in the event of a spillage or tube breakage in the centrifuge.

1. SAMPLE TYPES AND TESTS SUITABLE FOR CENTRIFUGATION AND/OR OVERNIGHT STORAGE

Ideally, samples for Biochemistry and Haematology investigations should be transported to the Laboratory on the day of collection, however, this is not always possible.

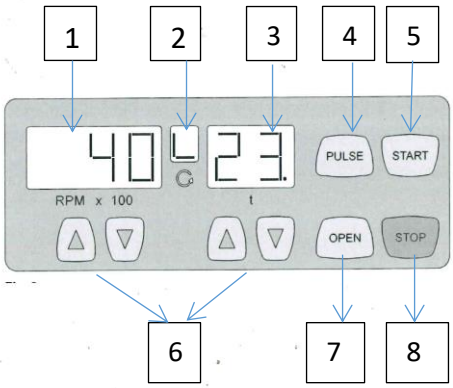
The following table provides information on how samples should be prepared for storage/stored and for how long to ensure that quality and integrity is maintained between collection and transportation.

INVESTIGATIONS	SPECIMEN CONTAINER REQUIRED	PREPARATION AND STORAGE CONDITIONS POST SAMPLE COLLECTION	STABILITY BETWEEN COLLECTION & TRANSPORTATION TO LAB
Routine Biochemistry Investigations requiring Centrifugation and Storage: Urea & Electrolytes (UEs) Creatinine (CRN) Liver Function Tests (LFT) Bone Group (B) C-Reactive Protein (CRP) Ferritin (FER) B12 & Serum Folate (SFOL) Amylase (AMY) Thyroid Function Tests (T) Lipid Profile (LIP) Cholesterol (CHO) HDL Cholesterol (HDLC)	Yellow topped SST Tube 	Spin sample in Centrifuge at 3000 – 3700 RPM for 10 mins Samples should be allowed to clot for 30mins but spun within 2 hours of collection Store in Fridge @ 2-8^0 C	24 hours
Biochemistry Investigations requiring storage only: Fasting Plasma Glucose Random Plasma Glucose	Grey topped Fluoride Tube 	Leave sample as whole blood Store in Fridge @ 2-8^0 C	24 hours
Haematology Investigations requiring storage only: Full Blood Count ESR	Purple Topped EDTA Tube 	Leave sample as whole blood Store in Fridge @ 2-8^0 C	24 hours

2. SETTING UP AND USING THE EBA 270 CENTRIFUGE TO SPIN CLOTTED SST TUBES IN READINESS FOR STORAGE

Control Panel

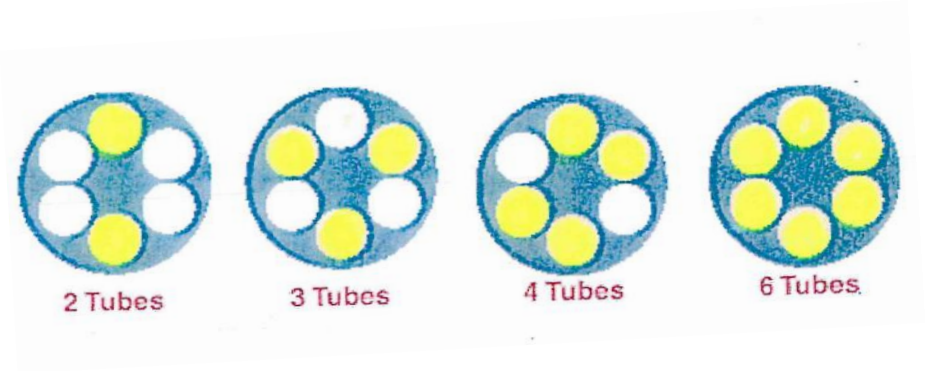
Set up the centrifuge as per the manufacturer's instructions on a flat, clear surface. Use the control panel (shown below) to set the speed and time parameters.



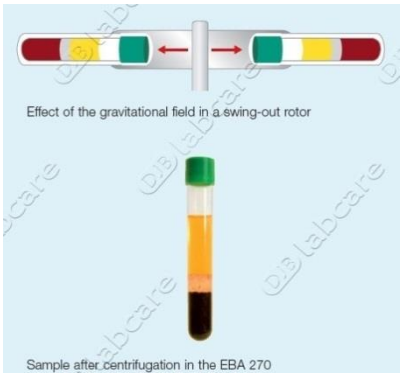
1. Shows Speed
2. Lid open (L); Lid Closed (--)
3. Running Time
4. Do not use
5. Start Button
6. These are used to set the run speed and time. Use the up and down arrows to alter if required. These should be set:
   Run Speed 3000 – 3700 RPM
   (corresponds to RCF (g) of 1300 – 2000)
   Run time 10 minutes
7. Open button
8. Emergency Stop

Operation

- **All yellow top samples MUST be left to clot for 30 minutes before Centrifugation, but spun within 2 hours of collection.**
- Check that the power button is in the on position.
- Match the samples so that they are in matching pairs (or threes) with the same level of blood in them.
- If there is no match available, use a balance tube (this is a tube containing water which can be adjusted to match the level of blood in the sample tube).
- Place samples in the centrifuge as shown in the diagrams below, to ensure that the centrifuge is balanced.



- Gently close lid and press start.
- If the centrifuge starts to vibrate, press stop and check that the tubes are balanced.
- The centrifuge will come up to speed quickly and run for 10 minutes.
- At the end of the run, the centrifuge will slow down to a stop and an alarm will bleep when it is safe to press the open button. It will continue to bleep if the centrifuge is not opened.
- Press the open button and remove all tubes.



3. SUSPECTED LEAK OR BREAKAGE

- If a sample leak or breakage in the centrifuge is suspected, leave the lid closed for 30 minutes to allow any aerosols to settle.
- If there has been a sample leak or breakage, the centrifuge must be cleaned.
- Remove all sample holders and wash in a disinfectant. It is important to make sure they are rinsed thoroughly in water. Leave to air dry.
- Wipe out the bowl of centrifuge with disinfectant and then again with water.
- Once clean and dry, place the holders back into the rotor. Note that with swing-out rotors, all rotor positions must be filled with identical sample holders.

If there are any issues requiring further assistance, please contact either:
Myra Del Rosario on 01603 287331 or George Bailey on 01603 646651

Technical issues should be raised with DJB Labcare Ltd. on 01908 612598.