

Glasgow Clinical Trials Unit Standard Operating Procedure

SOP number	17.007	Version	5.0
Title	Use of laboratory centrifuge		

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Released by Signature	Julie Brittenden	Date

SOP category	17 NHS GG&C Clinical Research Facility – Clinical				
Staff category	Staff Category	R	A	C	I
	Nursing	X			
	Principal Investigator	X			
	Clinical Research Fellow	X			
	GCRF Manager		X		
	GCRF Associate Director				X
Senior R&I Manager				X	

1. Scope

This procedure applies to all staff working within Glasgow Clinical Research Facility (GCRF).

2. Purpose

To describe the standard operating procedure (SOP) to be followed when using the laboratory centrifuges which are used within GCRF. This SOP is not a full reference guide and detailed instructions can be found in the manufacturer's manual located in the laboratory.

3. Procedures

3.1. Preparation

- Before use of the centrifuge, its buckets and lids must be checked for cleanliness and damage. If they are damaged report to line manager and do not use.
- Refer to the relevant study protocol which will define the sample processing instructions.
- The centrifuge has a display on the front to set the temperature, speed and duration of centrifugation.
- Ensure centrifuge is set to the correct temperature in advance as reaching target temperature can take 20-30minutes.

3.2. Procedure

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- The buckets, inserts and samples must be weighed together, using the laboratory scales to ensure that they are balanced properly. The scales should be set to zero before weighing.
- Place samples in the buckets diametrically, ensuring that when turned 180° the blood bottles correspond evenly to the opposite side.
- Reset the scales to zero and remove the sample bucket before placing the other loaded bucket on the scales. If necessary add a water balance to an odd number of tubes.
- Replace bucket lids. If they are screw-on, secure in a clockwise direction but do not over tighten. If they are clip-on, ensure that clips are fastened securely.
- Close the lid of the centrifuge until it clicks.
- Set to the desired speed and time. Ensure when setting speed that the correct units are used as the lab manual may refer to RPM (speed) or G (relative centrifugal force).
- Start the centrifuge.
- After starting the centrifuge it is important to ensure it is operating smoothly before leaving the laboratory. If the centrifuge is improperly balanced it may shake, move violently or alarm and should be stopped immediately and the balancing process should be repeated. If the problem persists report fault to line manager.
- Remove samples when cycle complete, keeping them upright and process as per study protocol.
- Close lid on centrifuge until it clicks.

3.3. Safety

- If centrifuge alarms, shakes or moves violently press **STOP** immediately.
- Report all faults promptly to line manager. **DO NOT** use centrifuge until reported faults are repaired.
- Any spillages must be cleaned up immediately following the GG&C Spills Policy.

4. Referenced documents

- NHS GG&C Spills Policy

5. Related documents

- HPS National IPC Manual – [Standard Infection Control Precautions](#)
- NHS GG&C Policy on the Provision and Use of Personal Protective Equipment

6. Document history

Version	Date	Description
Draft	10/10/07	Creation of SOP
1.0	22/11/07	Release of Version 1
1.1	19/05/08	Released to staff
1.2	30/09/09	General update
1.3	21/06/11	General update
2.0	30/06/14	Significant changes to clarify the preparation of equipment and staff protection and the safety issues to be considered. New template
3.0	15/07/16	SOP restructure

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Version	Date	Description
		Minor admin changes Change released by
4.0	26/08/2019	Minor admin changes Change approved by
5.0	23/06/2023	Update to SOP template v2.0 Addition of RACI matrix Change of author Minor admin changes

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