

## Standard operating procedures for neonatal 3T MR scan at CIF

### Staff required for MR scanning

Neonatal consultant	Mandatory	Trained and signed off in the COMET delegation log
Neonatal research nurse	Mandatory	Trained and signed off in the COMET delegation log
Neonatal registrar	Optional	Trained and signed off in the COMET delegation log
MR Physicist	Optional	Trained and signed off in the COMET delegation log
MR Radiographer	Mandatory	Trained and signed off in the COMET delegation log

### Before MR scanning and booking procedures

Confirm written parental consent for COMET is available	Research nurse
Confirm the date of MR scan with the patient and all key MR staff	Research nurse
Make an online booking via the CIF booking database: <a href="https://iccif.calpendo.com">https://iccif.calpendo.com</a>	Research nurse
Inform the AU Nurse in Charge and receptionist about date/time of admission to AU	Research nurse
Documents in nurses' diary and reception's diary	Research nurse
Requests patient's notes to AU Clerical Assistant (or request that notes be created if non-existent, or if the baby is coming from other hospitals)	Research nurse

### On day of MR scan: In Ambulatory Unit

Call parents early morning to remind about the MR scan, timing of feeds (i.e. feed before leaving home); check if mum requires a wheel chair	Research nurse
Book porters if mum requires a wheel chair	Research nurse
Patient arrives to Ambulatory Unit (AU) at the arranged time	Parents
Receptionist clerks patient in and informs the research nurse (Ex 32413)	Receptionist
Admit patient to bed space in AU	Research nurse
Attach the identification bands x 2	Research nurse
Obtain initial set of vital signs and record in case notes/electronic notes	Research nurse
Perform first metal check	Research nurse
Inform neonatal consultant if any concerns about sedation/MR scan	Research nurse
Escort the parents to the CIF MR scanner with the baby in a push chair	Research nurse
Ensure drug chart (mandatory) and medical notes are taken to CIF	Research nurse

### On day of MR scan: In the CIF scanner

Check CIF resuscitation equipments and drugs before the baby arrives	Research nurse
Adjust heating/lighting/noise in the MR preparation room, if required	Research nurse
Bring the parents and baby to CIF via the sub way	Research nurse/Porter
Check identification bands x 2	Consultant
Assess the suitability for sedation and scanning	Consultant
Prescribe chloral hydrate (50/kg/dose) – one dose only in drug chart	Consultant/Registrar
Attach saturation monitor, obtain baseline HR, saturation and surface temperature	Research nurse
Perform a metal check	Research nurse
Feed the baby for few minutes, and then give chloral, followed by further 10 to 15 minutes of breast feeding. Ensure the total feeds given is only half the amount baby normally takes, so that the stomach is not full.	Mother/Nurse
Perform second metal check (all non-metallic attachments except the saturation probe should be removed)	Radiographer
Burp the baby well and apply Medvac	Research nurse
Gently put baby to sleep	Mother
Transfer the baby to MR scanner room in the MR compatible trolley	Nurse and Consultant
Swap over to Nonin monitor and remove metallic saturation probe	Nurse and Consultant
Continuous saturation and heart rate monitoring during MRI	Nurse and Consultant
Perform MR scan	Physicist/Radiographer
Transfer baby back to preparation room in CIF on the MR compatible trolley	Research and Consultant
Swap over to standard saturation monitors	Research and Consultant
Upload conventional MR images to PACS for clinical reporting	Radiographer
Upload all MR data to CPN drive	MR Physicist

**Transfer to the Ambulatory Unit**

Transfer the baby to the cot with continuous saturation monitoring	Research nurse
Ensure low flow oxygen, suction, ambu bag and resuscitation bag are attached to the cot	Nurse and Consultant
Transfer baby to the Ambulatory Unit in the cot	Nurse and Consultant
Monitor the baby in the ambulatory unit till fully awake and taken a good feed	Research nurse
Make a record of the monitoring and clinical status in the medical notes	Nurse and Consultant
Assess the fitness of baby to be discharged home, and enter in medical notes	Consultant

**Post-discharge process**

Ensure baby is booked for a follow up clinic at 6 to 8 weeks to discuss the MR report	Research nurse
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