PERI-OPERATIVE MANAGEMENT OF SURGICAL NEONATES

Pre-OP

Acute cases

- Any baby suspected of an acute surgical condition on the TMBU or referred to the TMBU from another neonatal unit.
- Babies up to 28 days corrected age referred to the surgical team from another hospital or a GP.
- Management:
  1) Admit babies needing pre-operative intensive care to the TMBU for assessment, investigation and stabilisation.
  2) Depending on their clinical condition, babies referred to the surgical team from another hospital or a GP may go to the RACH pre-operatively.
  3) For new surgical admissions to the TMBU the neonatal team will contact the on-call surgical registrar at the earliest possible opportunity.
  4) Consent will be completed by the surgical team prior to transfer to theatre.
  5) There will be at least one well functioning IV line prior to transfer. Arterial access for in line BP monitoring and blood sampling is desirable but should not unduly delay transfer to theatre. If in doubt, discuss with anaesthetist.
  6) The anaesthetic consultant should visit the TMBU to review the patient pre-operatively. Ask for the consultant in charge of Nursery 1 when visiting. The neonatal staff will give a history of the case and provide up-to-date blood test results. Discussion will include airway management, vascular access and blood product requirements.
  7) On transfer to and from theatre the baby will be accompanied by a nurse and a consultant or registrar competent in transfers.

Elective Cases

- Any stable surgical case cared for on the TMBU
- Babies <6kg that are RACH inpatients or under follow-up at home (mainly ex-TMBU infants)
- Management:
  1) These babies will be admitted to a surgical bed at the RACH or will already be on the TMBU. They may have been assessed at the nursing pre-admission clinic.
  2) A complicated past medical history is likely (CLD, cardiovascular compromise, poor nutritional status). If the plan is for recovery post-operatively on the TMBU then the surgical consultant should discuss the baby with the Nursery 1 consultant who will be delivering the post-operative care. It will then be the responsibility of the neonatal consultant to familiarise him or herself with the full medical history and discuss this with the anaesthetist in charge of the case. This should be done well in advance of the operation date.
  3) Babies at the RACH and those admitted from home will need the following microbiological screening:
     i. NPA for respiratory Multiplex RT - PCR
     ii. Stool for gastroenteritis Multiplex RT – PCR
     iii. Perineal swab for MRSA and VRE
  4) The surgical team should contact the RACH nurse bleep holder to organise nursing cover for recovery on the TMBU and ongoing care at the RACH.
  5) Consent will be completed by the surgical team prior to transfer.

6) There is no need to intubate prior to transfer to theatre unless requested by the anaesthetist. For cases undergoing ENT procedures intubation with sedative drugs on the TMBU may compromise dynamic inspection of the airways.
7) There will be at least one well functioning IV line prior to transfer. Arterial access for in line BP monitoring and blood sampling may be useful but should not delay transfer to theatre. If in doubt discuss with the anaesthetist.
8) On transfer to and from theatre the baby will be accompanied by a nurse and a registrar competent in transfers.

In Theatre

- Management:
  1) When delivering a baby to theatre the neonatal team will introduce themselves to the anaesthetist and give a clear handover.
  2) Following intubation in theatre anaesthetists will use TMBU charts to check ETT lengths. In some cases (pre-term babies or those needing long-term ventilation post-operatively) the ETT should be secured using TMBU fixation (hat and flange). For these cases the neonatal nurse should be available to assist.
  3) It may be useful for the neonatal transfer team to stay in theatre to assist. Discuss with the anaesthetist in charge of the case.
  4) Anaesthetists should avoid using central venous feeding lines for drug boluses.
  5) On back transfer the neonatal team should introduce themselves to the anaesthetic consultant who will give a clear handover of events in theatre.

Post-OP:

- Management:
  1) For complex cases the anaesthetist and surgical team should visit the TMBU to discuss post-operative plans with the Nursery 1 consultant.
  2) Standard ventilation will be with SIMV (TCPL).
  3) Standard sedation will be with morphine and midazolam with an option for use of fentanyl and clonidine as per pharmacy guidelines.
  4) Paralysis with atracurium as per pharmacy guidelines
  5) Nurses from the RACH may wish to prepare pre-drawn boluses in line with their usual practice.
  6) Usual infection control policies will be followed with additional use of aprons and gloves.
  7) Paper records and drug charts will be used to aid back transfer of information to the RACH.
  8) Discharge to RACH HDU when extubation completed and stable for transfer. There should be a medical handover to the surgical team and the paediatric consultant of the week (COW). A neonatal discharge summary should be placed in the notes before transfer.