

MRI Under General Anaesthesia – Booking and Management

Contents

1.	Overview	1
2.	Referral	1
3.	Notification and confirmation	2
4.	Patient preparation	3
5.	In procedure room	4
6.	MRI transfer kit to include	4
7.	Discharge/transfer to wards	4
8.	Associated Documents	4
	Appendix 1: Map to MRI NSH	5
	Appendix 2: Transfer Bag contents	6

1. Overview

Purpose

To ensure patients requiring MRI under general anaesthesia are appropriately booked following the process and admitted to NSH Surgical Unit.

The intended process:

- the patient is admitted to the Surgical unit prior to the procedure
- prepared by the preoperative staff
- anaesthetised in the procedure room
- transferred to the MRI suite under anaesthesia
- transferred back to the procedure room
- awakened
- recovered in NSH main PACU stage 1 and or 2
- returned to ward or discharged home

Scope

Clinicians booking outpatients or inpatients for MRI under anaesthesia

MRI staff

Anaesthetists

Anaesthetic Technicians

Surgical Unit Staff

All nursing/midwifery staff preparing patients for MRI scans

Orderlies transporting patients

2. Referral

- Booking clinical staff completes MRI request form on eRadiology (order form) including details of anaesthesia requirement for both acute and elective cases.

Acute Cases/Inpatients: The referring team must discuss the need for general anaesthesia with the Radiology Fellow

Outpatients coming in as a day stay case: The Radiology Fellow will contact and discuss the need with the referring team

2.1 Day stay cases- For those patients coming in from home to have the MR scan on the day

- If the patient requires General Anaesthesia, an additional “**New Patient**” electronic referral to Anaesthesiology should be completed **on clinical portal #Referrals: Specialist tab**.

Issued by	Quality Improvement Nurse Anaesthetics	Issued Date	October 2019	Classification	010805-13-005
Authorised by	Clinical Director of Anaesthesia	Review Period	36 months	Page	1 of 7

MRI Under General Anaesthesia – Booking and Management

- Referring service helps the patient fill in the standard health questionnaire and submits this to anaesthesia by the any of the following methods
 - Fax to 42237
 - Scan and upload to clinical portal (requires specialized access as restricted to certain qualified personal)
 - Hand deliver to NSH main anaesthetic department
- This referral will be triaged by Department of Anaesthesia

2.2 Acute Cases/Inpatients

Please Note!

When the referring team rings to discuss a case with the MRI fellow for an inpatient but the MR scan is not acutely required, a time will be suggested.

- Booking medical officer completes an **Acute Booking electronic referral to Theatre #Referrals** : Specialist tab

3. Notification and confirmation

Step	Action
	<p>Day stay patients</p> <ul style="list-style-type: none"> • When Anaesthesia triaging/assessment is complete, operations manager of anaesthesia identifies a suitable session and contacts radiology with available date and time. Preferred times are 09:30 start on Tuesdays or 13:30 start on Wednesdays and Fridays. • Date and time are agreed between Anaesthesia and Radiology. The Operations Manager for Anaesthesia sends out notification to Anaesthetist, PACU Charge Nurse Manager and Charge Anaesthetic Technician. • This notification will include patient details, date and time of the proposed procedure. • Radiology booking clerk sends out appointment confirmation letter to patient for outpatients. • Inpatients who require an elective MRI, Radiology contact the wards/specialty with the date and time. MRI safety questionnaire will be faxed along with instructions to carry out patient preparation discussed under heading 4. <p>Acute Cases/ Inpatients</p> <ul style="list-style-type: none"> • The referring team contacts the Anaesthetic Coordinator on Ext 43540 to discuss clinical details of the patient. • An electronic referral is received on electronic whiteboard • Anaesthetist/theatre coordinator contacts operations Manager of anaesthesia to notify that there is a referral for MRI under Anaesthesia. Operations manager of Anaesthesia identifies a suitable date and time at the earliest and liaises with Radiology. • Radiology confirms the date and time for the MRI and notifies the clinician/Ward/service requesting the MRI and instructs to follow the patient preparation • Operations Manager of Anaesthesia notifies the charge anaesthetic technician who ensures anaesthetic technician staffing is organised and address any issues with preparation. • Operations Manager Anaesthesia notifies PACU CNM of patient details, date and time of expected procedure and the referring team (e.g. Orthopaedics, Colorectal etc.). This information is very vital and is required by the surgical unit ward clerk to admit the patient on iPM

Issued by	Quality Improvement Nurse Anaesthetics	Issued Date	October 2019	Classification	010805-13-005
Authorised by	Clinical Director of Anaesthesia	Review Period	36 months	Page	2 of 7

MRI Under General Anaesthesia – Booking and Management

4. Patient preparation

Day stay patients

- MRI reception sends out an appointment letter which will include admitting instructions. Time on the letter will advise patients of the time to present to MRI prior to reporting to Surgical Unit for admission.
- Anaesthetic Department- Personal Assistant to organise the clinical records to be sent to surgical unit on the previous day
- MRI Medical Imaging Technologist (MIT) to go through the MRI safety screening and Consent form to ensure eligibility for the scan. MRI MIT informs patient to remove all metal such as jewellery, piercings, hair accessories, brassieres etc. and to be in a hospital gown.
- Once MRI MIT is satisfied of the preparation, patient can present to Surgical Unit for admission.
- These admissions can be done as a preadmission by the surgical unit clerks
- Surgical unit clerk will create a new direct ward referral if no suitable existing referral has been created by the service who is requesting the MRI
- Once referral is created or found, surgical unit clerk to admit patient onto IPM (Procedure Room). Below is the link to iPM ADT – Pre-Admitting and Direct ADT Patients with Referral

<http://staffnet/wdhbipm/documents/ADT/i.PM%20ADT%20-%20Pre-Admitting%20and%20Direct%20ADT%20Patients%20with%20%20Referral.pdf>

Acute cases/Inpatients

- MRI Booking clerk faxes the Safety Screening Checklist Form (SSCF) to the ward and phones the ward to notify the staff
- Booking clinician and ward nursing staff ensures that MRI safety questionnaire completed and is faxed back to MRI in a timely manner.
- MRI reception will also ensure that the patient has a SSCF returned from the ward and give it to an MRI MIT to check.
- If unsure or any concerns, the MRI MITs will contact the ward for clarification.
- MRI MIT will inform the ward staff regarding metal removal and that patient should be dressed in a hospital gown.
- MRI MIT to follow up in the ward and consent for contrast regardless if it is indicated or not. This is to ensure that in case if patient requires contrast, consent is obtained in advance.
- Ward nursing staff completes a pre-operative checklist and ensures that relevant clinical and nursing information is handed over to pre-operative nurse.
- Ward nursing staff phones the pre-op nursing team on extension **43451** to notify that the patient is being transferred.
- **Patients from the North Shore Hospital** wards are time stamped on IPM by pre-op nurse on arrival to surgical unit
- **Patients from Waitakere Hospital** will be admitted directly to surgical unit. To ensure a smooth process, ward clerk from Waitakere Hospital ensures that the patient is discharged on IPM
- Surgical unit clerk to admit patient on IPM- this should be done within 4 hours. If any queries or for assistance please contact Vicki Hustler on extension **43600**

Issued by	Quality Improvement Nurse Anaesthetics	Issued Date	October 2019	Classification	010805-13-005
Authorised by	Clinical Director of Anaesthesia	Review Period	36 months	Page	3 of 7

MRI Under General Anaesthesia – Booking and Management

5. In procedure room

- Personnel
 - Anaesthetist who should be Consultant
 - 2 Registered Anaesthetic technicians
 - Orderly
- Equipment
 - Anaesthetic Machine and monitor, anaesthetic locker
- Checking in
 - OR checks can be completed by Registered Anaesthetic Technicians

6. MRI transfer kit to include

- Suitable trolley for anaesthesia and transfer
- 1x TIVA Pump and other pumps at anaesthetist's discretion
- Transport monitor Hamilton MRI compatible ventilator (best to use if MRI is done in MR 1) or use anaesthetic machine with long MRI tubing
- Anaesthetic Technician Resus bag – this bag contains a pouch with medications (see appendix for full list of contents). Anaesthetist to organise any controlled drugs prior to leaving surgical unit.
- Anaesthetic MRI locker (Drugs including Propofol, long ventilator tubing, long capnography tubing, 3 way extensions, IV tubing)



All staff entering MRI suite must complete the MRI staff safety checklist

7. Discharge/transfer to wards

Patients will be discharged according to PACU discharge criteria.

Discharge letter should be completed by the service requesting for MRI. Surgical unit nurses to notify the house officer of the service.

Patients requiring a transit to WTK should be transported on the scheduled ambulance from NSH to WTK.

To book an ambulance, complete a Non-urgent St John Ambulance booking form and fax to **43995** or **4418995**. Make sure the correct contact details are on the form to receive confirmation of the booking.

8. Associated Documents

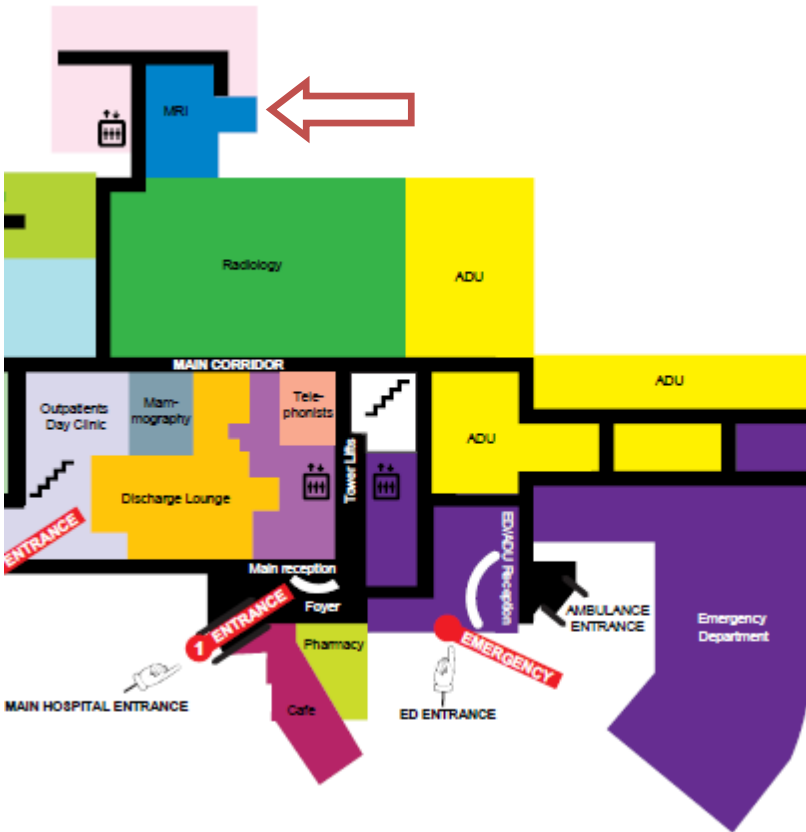
Type	Title/Description
WDHB Policies	Theatre Preparation, 2016
	Transit Care and Transfer between Services, 2016
	PACU discharge Criteria, 2017
	Informed Consent, 2014
WDHB Clinical forms	Preoperative Checklist
	Consent to Treatment/Blood Consent Form – April 2014
	Theatre Acute – Sending and Receiving, 2016

Issued by	Quality Improvement Nurse Anaesthetics	Issued Date	October 2019	Classification	010805-13-005
Authorised by	Clinical Director of Anaesthesia	Review Period	36 months	Page	4 of 7

This information is correct at date of issue. Always check on Waitemata DHB Controlled Documents site that this is the most recent version.

MRI Under General Anaesthesia – Booking and Management

Appendix 1: Map to MRI NSH



Use the lift opposite theatre reception.
 Turn left out of lift to ADU
 Take main corridor to radiology department do not go through main radiology unit with outpatients seating
 Let MRI staff know you are from theatre you may be asked to transfer to MRI trolley in their holding area or if MRI department free we can use the stretcher bay area between MRI 1 & 2.

Issued by	Quality Improvement Nurse Anaesthetics	Issued Date	October 2019	Classification	010805-13-005
Authorised by	Clinical Director of Anaesthesia	Review Period	36 months	Page	5 of 7

This information is correct at date of issue. Always check on Waitemata DHB Controlled Documents site that this is the most recent version.

MRI Under General Anaesthesia – Booking and Management

Appendix 2: Transfer Bag contents

<p>Airway Bag Contents</p> <ol style="list-style-type: none"> 1. Green Oropharyngeal guedel airway x 1 2. Orange Oropharyngeal guedel airway x 1 3. Red Oropharyngeal guedel airway x 1 4. 1 x 10ml syringe 5. Pink tape (leucoplast elastic) 6. 30ml syringe x 1 7. Ties 8. Battery size Cx2 9. Lubricating jelly x 1 10. Laryngoscope handles x 2 11. Size 3 Macintosh blade x 1 12. Size 4 Macintosh blade x 1 13. Satin slip stylet x 1 14. McCoy size 3 blade x 1 15. Gas sampling line x 1 16. Size 6 Nasopharyngeal airway x 1 17. Size 7 Nasopharyngeal airway x 1 18. Size 8 Nasopharyngeal airway x 1 19. Size 6 Endotracheal tube 20. Size 6.5 Endotracheal tube 21. Size 7 Endotracheal tube 22. Size 8 Endotracheal tube 23. Size 9 Endotracheal tube 	<p>Drug Bag Contents</p> <ol style="list-style-type: none"> 1. Adrenalin 1:1000 1ml ampoules x 5 2. Amiodarone – 150mg in 3ml x 3 3. Atropine 600mg in 1ml x4 4. Aminophylline 250mg in 10ml x1 5. Adrenaline 1:10000 10ml x 2 6. Sodium Bicarbonate 840mg in 10ml x 1 7. Salbutamol 0.5mg in 1ml x 3 8. Magnesium sulphate 2.5g in 5ml x1 9. Neostigmine 2.5mg in 1ml x 4 10. Metaraminol 10mg in 1ml x 4 11. Glycerol trinitrate 1mg 1ml x 1 12. Suxomothonium chloride x 2 13. Salbutamol (ventolin) 5mg in 5ml x 2 14. Potassium chloride 10m mols in 10ml x 2 15. Adenosine 6mg in 2ml x2 16. Flumenzil (Anexate) 0.5mg in 5ml x 2 17. Midazolam 5mg in 5ml x 2 18. Diazepam 10mg in 2ml x 2 19. Veuironium Bromide x 1 20. Rocuronium bromide x 1 21. Labetalol x 2 22. Nabxonox 2 23. Metoprolol x 2 24. Atracurium x 2 25. Sodium Bicarbonate 100ml x 1 26. Baldwin needle x 2 27. Propofol 20ml x 2 28. Etomidate x 2 29. Thiopentone x 1 30. Calcium chloride x 2 31. Glycyl trinate spray x 1 32. Metroprolol 5mg /5ml x 2 33. Esmolol 100mg/10ml x1 34. Water 10ml x 2 35. Sodium chloride x 2 36. Frusemide 20mg in 2ml x 2 37. Adrenaline (Epinephrine injections) x 1 38. Glucagen Hypokit x 1 39. Dextrose 50% Soln 90ml x 1
<p>Difficult Airway Bag</p> <ol style="list-style-type: none"> 1. Intubating IMA size 4 x 1 2. Intubating ETT x 1 3. Stabilizer x 1 4. Magills forceps x 2 5. Airtraq small x 1 6. Airtraq large x 1 7. Hudson mask & oxygen tubing & reservoir (high concentration) x 1 8. Lubricating jelly x 1 9. Scalpel size 11 (Blade) x 1 10. Catheter mount angled – suction x 1 	<p>IV Bag</p> <ol style="list-style-type: none"> 1. Orange 25g x 2 2. Blunt fill filter needle x 6 3. Sharp needles pink 18a x 3 4. 14a Orange ventions x 3 5. 18a Blunt needle x 3 6. 22a blasck needle x 3 7. Vial access x 2 8. Smartsite x 1 9. 20a yellow needle x 3 10. 20a insyte pink 30mm x 2 11. 20a insyte pink 48mm x 3 12. 16a Grey vention x 2

Issued by	Quality Improvement Nurse Anaesthetics	Issued Date	October 2019	Classification	010805-13-005
Authorised by	Clinical Director of Anaesthesia	Review Period	36 months	Page	6 of 7

MRI Under General Anaesthesia – Booking and Management

	<ol style="list-style-type: none"> 13. 20a Pink vention x 2 14. 18a Green vention x 3 15. 10ml syringes x 3 16. 5ml syringes x 4 17. 3ml syringes x 3 18. Sodium chloride posiflush x 1 19. Razor blade 20. Chlorhexidine wipes x 1 21. Tourniquet Green x 1 22. Tegaderms IV dressing x 4 23. Wipes/swabs packets x 2 24. Arrow arterial wire x 1 25. Arterial blood gas syringes x 2 26. Quickflash radial artery x 1 27. Microtape x 1
<p>Mini Trach Kit</p> <ol style="list-style-type: none"> 1. Disposable scalpel blade x 1 2. 16a Venfion x 1 3. Swabs x 2 4. Lubricating jelly x 2 	<p>In The Bag – also are</p> <ul style="list-style-type: none"> • Sodium chloride 500ml x 1 • Blue Bougies x 2 • Gum elastic bougie x 1 • Size 6 Green gloves x 1 • Size 6 ½ Green gloves x 1 • Size 7 Green Gloves x 1 • Size 7 ½ Green gloves x 1 • Size 8 Green gloves x 1 • Size 8 ½ Green gloves x 1 • Size 9 Green gloves x 1
<p>IV Sets in Bag</p> <ul style="list-style-type: none"> • Pump sets x 2 • Pink tubings (infusion) x 2 • Smartsites x 3 • Green infusion tubing x 1 • Smartsite connector x 2 • Mini tracheostomy kit x 1 	<p>Front Pockets (Bottom)</p> <ul style="list-style-type: none"> • Ambu Bag x 1 <p>Front Pockets (Top)</p> <ul style="list-style-type: none"> • Pressure bag 500ml x 1 • Arterial line set x 1 • Peep valve x 1

Issued by	Quality Improvement Nurse Anaesthetics	Issued Date	October 2019	Classification	010805-13-005
Authorised by	Clinical Director of Anaesthesia	Review Period	36 months	Page	7 of 7