

**NHS Lothian
University Hospitals Division
Western General Hospital
Ward 20
Protocol for Intrathecal Medicines**

1. Introduction

In the UK there have been fatal errors associated with the administration of intrathecal drugs. Administration of the wrong drug or wrong dose of drug by the intrathecal route is likely to be fatal.

Adherence to this document aims to minimise the risk to patients receiving intrathecal injections within ward 20.

This local protocol complies with the Lothian Universities Hospitals Division's (LUHD) Intrathecal Injections section of the Policy and Procedures for Medicines version 3 which in turn complies with the Scottish Executive Health Department's 'Guidance on the safe handling of intrathecal and intraventricular injections' (HDL (2006 11), which was issued in February 2006. This local protocol and HDL will be held in ward 20 in a folder along with a copy of the register and the neurological section, on the Critical Care site on the intranet.

All references to the intrathecal route in this protocol should be read as equally applicable to the intraventricular route.

This protocol does not cover intrathecal cytotoxic chemotherapy.

2. Ward 20 policy

All ward staff must be aware of the protocol for intrathecal medicines and understand its impact on practice.

This protocol and the Lothian policy for intrathecal injections must be adhered to at all times. If anyone, at any stage, has any doubts regarding his/her responsibilities, then (s)he should contact his/her line manager immediately to seek clarification and further training. Staff must challenge colleagues who are not adhering to the protocol and if necessary report their concerns to their line manager.

Only trained and authorised staff may prescribe, order, collect, deliver, administer or verify the administration of intrathecal medicines.

A list of intrathecal medicines and their usual doses, which are supplied to ward 20 from pharmacy can be found in Appendix 1. Intrathecal medicines requested from pharmacy, which are not on this list, require additional pharmacy checks, and therefore are subject to negotiable delay in supply.

3. Education and Training

All medical and nursing on ward 20 will receive training, appropriate to their level of involvement, in the prescribing, ordering, collecting, delivering or administering of the intrathecal medicines relevant to their area of work. Training plans for all professionals will be held locally by the responsible designated trainers (see below). Information regarding intrathecal therapy will be included in all nurse and doctor induction packs.

As part of their training, staff will be made aware of the dangers associated with the inadvertent administration of intravenous drugs by the intrathecal route, and be made aware of good practice recommendations by reading the following reference:

- The Scottish Executive Health Department's guidance on the safe handling of intrathecal and intraventricular injections HDL (2006) 11 issued in February 2006.

Intrathecal training for doctors and nurses within ward 20 is the ultimate responsibility of the Medical Director and Chief Nurse, respectively. However, delegation of this responsibility has been given to Dr Charles Wallis by the Lead Clinician ICU WGH for the training of Consultant Intensivists, and Senior Staff Nurse Mike Johnstone for the training of ward nurses.

Trainer and trainee will formally document training. The training will cover theory and practice. Once the trainee has been assessed as competent, their name will be placed on the intrathecal register (Appendix 2) by the responsible trainer by sending details to the ICU Pharmacist, Western General Hospital. Proof of his/her training will be held in by the trainers.

An up-to-date register of personnel authorised to be involved with intrathecal medicines, will be maintained by the ICU Pharmacist and a copy kept in the folder in ward 20. The register will be subject to strict document control.

It is the responsibility of the trainers to ensure regular review and update of the list of accredited intrathecal practitioners within their area of responsibility.

Personnel on the register must be re-accredited every 2 years.

4. Prescribing Intrathecal Medicines

Intrathecal therapies may only be initiated by a consultant intensivist who is named on the intrathecal register.

Prescriptions for an intrathecal therapeutic agent must initially be written by a consultant authorised to prescribe and whose name appears on the intrathecal register.

Where continuation of ongoing therapy requires transcription onto a new prescription and administration chart this must be done by a consultant named on the intrathecal register and authorised to prescribe.

Prescriptions must be written on the patient's main prescription and administration chart.

The prescription should clearly state the route of administration i.e INTRATHECAL and should not be abbreviated.

Extra vigilance is required when prescribing intrathecal antimicrobials, as some patients may require the same drug to be given concomitantly, at different doses, by different routes. Wherever possible, the intrathecal injection should be prescribed at a different time from intravenous therapies.

On rare occasions, with the consent of an ICU consultant, a doctor from another area who is on the intrathecal register in their own area, may prescribe and give an intrathecal in ward 20. However their competency to do so (i.e whether they are on an intrathecal register) should be checked by the ICU consultant. The Neurosciences registers are on the intranet under Neurosciences/Documents/Intrathecal Policy Documents.

5. Preparation of Intrathecal Injections

Intrathecal injections for spinal anaesthesia and analgesia may be prepared in operating departments by an authorised anaesthetist whose name appears on the intrathecal register.

All other intrathecal medicines must be prepared by the hospital Pharmacy Department, and will be supplied in a ready-to-use form.

6. Ordering of Intrathecal Injections from Pharmacy

Out of hours, the emergency on-call pharmacy service should be contacted via switchboard.

The following information will therefore be provided to the pharmacist:

- The name of the authorised prescriber
- The patient's Name
 Date of birth
 CHI number
- The drug prescribed
- The dose prescribed

Monday to Friday the relevant clinical pharmacist should be contacted to order an intrathecal

- ICU pharmacist on bleep 8140 between 8.45am and 5.00pm.

Saturday and Sunday 9am to 1pm call extension 31210.

7. Delivery / Receipt of Intrathecal Medicines from pharmacy

Intrathecal medicines will only be issued by and to an authorised member of staff whose name appears on the intrathecal register.

The member of pharmacy staff issuing the intrathecal medicine must sign the 'released by' section of the pharmacy order form, and the member of ward staff accepting the intrathecal medicine must sign the 'received by' section of the order form.

Ideally the intrathecal medicine should be received by the appropriate clinical area at the time it is due to be administered, and therefore used immediately.

If it is not possible to administer the injection immediately :

- the member of staff who has received the injection must ensure it is stored securely in the intrathecal cupboard.

An authorised nurse must complete the relevant sections of the Ward Intrathecal Storage Record (sample Appendix 3).

- the authorised member of staff who removes the injection for administration must also complete the relevant sections of the Ward Intrathecal Storage Record.

If the intrathecal injection is not to be administered to the patient, the relevant details must be entered into the Ward Intrathecal Storage Record and the dose destroyed as soon as possible as per hospital policy by a member of staff on the intrathecal register.

8. Administration of intrathecal medicines

Practitioners preparing to administer an intrathecal medicine must verify details to ensure that the correct medicine and the correct dose are given to the correct patient by the correct route. These details must be verified by a second person (see below) and the checks made recorded on the prescription and administration chart. Both parties must be named on the intrathecal register and authorised to administer and check as appropriate. The second person must remain present and witness the administration of the intrathecal medicine.

Within ward 20 staff only consultant intensivists may be authorised to administer medicines by the intrathecal route. On rare occasions, with the consent of an ICU consultant, a doctor from another area who is on the intrathecal register in their own area, may prescribe and give an intrathecal in ward 20. However their competency to do so (i.e whether they are on an intrathecal register) should be checked by the ICU consultant.

Only consultant intensivists and senior nursing staff (Band 6 and 7 or senior band 5) may be authorised to verify and witness the administration of an intrathecal medicine.

Administration must not take place if the required authorised staff members are not available.

For intrathecal antibiotics, the procedure within the Policy for the Administration of Intrathecal Antibiotics should be followed. This is available in the intrathecal folder in ward 20 or on the neurological section, on the Critical Care site on the intranet.

Intrathecal alteplase will not be given by ICU consultants nor checked by ICU nurses but given by the neurosurgical team.

Appendix 1

Intrathecal medicines and adult doses commonly used and prepared in pharmacy department aseptic units within the Western General Hospital, LUHD for use within ward 20.

Medicines licensed for intrathecal use:

Gentamicin in treatment of CNS infections	Form prepared by pharmacy aseptic	Dose	Frequency
Gentamicin 5mg / ml ampoule	0.6ml undiluted in a syringe	3mg	Daily
Gentamicin 5mg / ml ampoule	0.8ml undiluted in a syringe	4mg	Daily
Gentamicin 5mg / ml ampoule	1ml undiluted in a syringe	5mg	Daily

Licensed medicines used off-licence intrathecally

Vancomycin in treatment of CNS infections	Form prepared by pharmacy aseptic	Dose	Frequency
Vancomycin	in 2ml sodium chloride 0.9%	20mg	Daily
Vancomycin	in 1ml sodium chloride 0.9%	10mg	Daily into each of two external ventricular drainage instillation ports

Alteplase in treatment of cerebral ventricular catheter occlusion	Form prepared by pharmacy aseptic	Dose	Frequency
Alteplase Only to be given and checked by neurosurgical team	In 2ml water for injections	2mg	Two separate bolus doses as per protocol

Appendix 2

NHS Lothian
University Hospitals Division
WGH

Register of Medical Personnel
Authorised to be Involved in the Prescribing and Administration of Intrathecal Therapy

<u>Name</u>	Grade	Intrathecal Medicines / Category	Tasks authorised to perform				Date Certified	Certified By	Reassessment Date
			1	2	3	4			

TASKS AUTHORISED TO PERFORM:

1. Training & Certification
2. Direct administration of intrathecal medicines
3. Prescribing of intrathecal medicines
4. Checking of intrathecal medicine dosage.

CATEGORY OF MEDICINE

- a. Antibiotic / infection
- b. Imaging agent / diagnostic imaging
- c. Palliative / control of symptoms
- f. Baclofen / spasticity
- e. Alteplase / ventricular catheter occlusion
- f. Pentosan / CJD

Appendix 2

NHS Lothian
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Register of Nursing Personnel
Authorised to be Involved in the Administration of Intrathecal Therapy

Name	Grade	Intrathecal Medicines / Category	Task authorised to perform			Date Certified	Certified By	Reassessment Date
			1	2	3			

Tasks Authorised to Perform

1. Training & Certification
2. Receipt of Intrathecal Therapy into Designated Storage Area
3. Issue of Intrathecal Therapy from Designated Storage Area to Medical Practitioner
4. Administration Check with Medical Practitioner

Category of medicine / Clinical Indication

- a. Antibiotic / infection
- b. Imaging agent / diagnostic imaging
- c. Palliative / symptom control
- d. Baclofen / spasticity
- e. Alteplase / ventricular catheter occlusion
- f. Pentosan / CJD

Appendix 3

Ward Intrathecal Storage Record

Date and Time received : _____

Patient's name :	CHI number :	Date of Birth :
Medicine :	Dose :	Volume :
Expiry of drug (date and time) :	Placed in intrathecal storage area by : (signature and print)	
Removed for administration by : (signature and print)	Date and time :	
Destroyed (if not administered) by (signature and name of authorised nurse or pharmacist) :	Reason for destruction	