THE STATE HOSPITALS BOARD FOR SCOTLAND

THE SAFE USE OF MEDICINES POLICY AND PROCEDURES

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The date for review detailed on the front of all State Hospital policies/ procedures/ guidance does not mean that the document becomes invalid from this date. The review date is advisory and the organisation reserves the right to review a policy/ procedure/ guidance at any time due to organisational/legal changes.

Staff are advised to always check that they are using the correct version of any policy/ procedure/ guidance rather than referring to locally held copies.

The most up to date version of all State Hospital policies/ procedures/ guidance can be found on the intranet: http://intranet.tsh.scot.nhs.uk/Policies/Policy%20Docs/Forms/Category%20View.aspx

REVIEW SUMMARY SHEET

No changes required to policy (evidence base checked)	☐

Changes required to policy (evidence base checked) ☒

Summary of changes within policy:

July 2022

- Addition of Equality and Diversity section (page 27).
- Appendix 5: Procedures for ordering, storage and administration of controlled drugs. Updated to reflect the change in practice for administering emergency treatment within non-ward areas for patients suffering a seizure.

January 2023

- Updates throughout the policy and appendices to reflect the changes following implementation of HEPMA
- Simple Medicines guide removed: no longer relevant due to HEPMA
- Recorded Drug Reconciliation Form (Appendix 4a) amended
- Weekly Controlled Drug (CD) liquid volume check requirement (Appendix 5a) added
- Transfer of CDs: now by registered pharmacy staff (pharmacist or technician) following liaison with NHS Lothian Deputy CD Accountable Officer, reflecting changes being made to NHS Lothian Safe Use of Medicines policy and established practice and policy in other health boards

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Appendix 1	General information for prescribers
Appendix 2	Procedure for telephoned and emailed prescriptions from medical personnel
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Appendix 3	Clozapine
Appendix 4	Procedure for ordering, storage and administration of recorded drugs
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Appendix 5	Procedures for ordering, storage and administration of controlled drugs
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Appendix 10	Procedure for preparation and administration of injectable medicines including insulin
Appendix 11	Procedure for intravenous administration for emergency use only
Appendix 12	Additional procedures for administration by other identified routes
Appendix 13	Procedures for use, storage and handling of medical gases
Appendix 13a	Oxygen Cylinder Supply List

POLICY STATEMENTS

1. All medicines administered or issued to The State Hospital patients are procured by and distributed through pharmacy
2. There are systems for the transport of medicines that ensure their security, quality and integrity, and maintain the health and safety of staff and the public
3. A record is kept at each step where a medicine changes hands and when it is administered or destroyed
4. Stock levels of medicines for clinical areas take into account the requirement to have medicines available to meet patients' needs, and to minimise the risks associated with administration
5. Medicines are stored appropriately to maintain their quality and security
6. All stationary used for ordering medicines is stored securely to prevent fraudulent use
7. All incidents involving medicines are reported and investigated in line with incident management policy
8. All medicines administered or supplied are prescribed by an authorised prescriber or are administered or supplied by an approved person operating within a Patient Group Direction (PGD), recorded on HEPMA or approved forms
9. Medicines are prescribed in line with Lothian Joint Formulary and/or specialist formularies or have the required level of approval for use
10. Unlicensed medicines are only used when no pharmaceutical equivalent of a licensed medicinal product is available
11. Medicines are only administered or supplied to patients by suitably competent practitioners, who can exercise professional accountability and judgement in the best interest of their patients
12. Disposal of medicines complies with legal requirements and health and safety regulations

AIMS

1. To ensure that medicines are of the required quality
2. To maintain clinical effectiveness and minimise risk to patients by ensuring that medicines are available at the time they are needed
3. To ensure that medicine stocks are kept at an appropriate range and level to minimise wastage and are in line with the recommendations and policies of the Medicines Committee
4. To ensure that the quality and security of medicines is maintained during transportation and transported with due attention to health and safety considerations
5. To ensure that the quality and security of medicines is maintained in all areas where medicines are stored and administered
6. To ensure that all prescriptions for medicines are written according to accepted standards and legal requirements
7. To minimise the risk of errors with the prescribing, supply and administration of medicines
8. To maintain an accurate record of the medicines prescribed, administered and supplied to patients
9. To dispose of unwanted medicines safely
10. To minimise wastage of medicines

PROCEDURES

Procedures to support the policy are available in this document.

1. INTRODUCTION

This is the approved Safe Use of Medicines Policy for ALL healthcare professionals within The State Hospital. This document forms part of the risk management process, and is an integral component of the hospital's clinical governance. This policy and associated procedures should be followed to help to reduce the potential for error and ensure patient safety and legal requirements are met.

A medicine is a substance that is introduced into the body, or externally applied to the body that exerts a physiological change. Medicines come under the provisions of the Medicines Act (1968), Misuse of Drugs Act (1971) and regulations or alternative medicines products.

In the context of this document 'registered healthcare professional' refers to any authorised person who is involved in prescribing or administration of medicines to patients. All healthcare professionals are accountable for their practice.

The five stages involved in the safe administration of medicines are:

1. Prescribing
2. Ordering and storage
3. Selecting and preparing
4. Administering
5. Recording

Any practice in the administration of medicines which falls out with those specified in this document is legally acceptable if it is covered by authorised Patient Group Directions (PGDs).

2. ACCOUNTABILITY, GOVERNANCE AND CONSENT

2.1. Accountability and Governance in relation to the safe use of all medicines

ALL healthcare professionals are accountable for their own practice and must adhere to the guidelines or codes of conduct of their own professional bodies **in addition** to practicing in accordance with The State Hospital Policies and Protocols. For Nursing this includes Royal Pharmaceutical Society/Royal College of Nursing - Professional guidance on the administration of medicines in healthcare settings and The Code – Professional standards of practice and behaviour for nurses and midwives. This principle should apply to all healthcare professionals involved in the prescribing or administration of medicine. To be accountable requires knowledge and skills. It is the responsibility of every practitioner to ensure their knowledge and skills are both up-to-date and fit for safe and effective practice.

Prescribing Management

Medicines management encompasses all aspects of medicines use, from prescribing through to how medicines are taken by patients. There are several healthcare professionals, including doctors, pharmacists and nurses, who are involved in the co-ordination of a multi-professional approach to medicines management and for promoting high quality, evidence-based, cost effective prescribing in line with local and national recommendations.

Medicines Committee
The Medicines Committee consists of a multi-disciplinary group of professionals including clinical and non-clinical staff who primarily advise the hospital on the safe, effective and economic use of medicines via the production of policies and procedures. Reviews of medicine expenditure and trends in prescribing are also completed. These reviews may include reports to individual wards and 6-monthly prescribing reports to consultants. Further information is available on the Medicines Committee intranet page at:
http://adsp02/GroupsCommittees/MedicinesCommittee/Pages/default.aspx.

Prescribing guidance

- The hospital supports and promotes use of the Lothian Joint Formulary, see link: Formulary | Lothian Joint Formulary (nhs.scot) except for treatment of infections where the NHS Lanarkshire Antimicrobial Guidelines are followed, see link: Primary Care Guidance (scot.nhs.uk)

- Non-formulary prescribing is monitored. New medicines should only be prescribed when recommended by the Scottish Medicines Consortium (SMC), see link: (www.scottishmedicines.org.uk) and funding sources have been established.

- Guidance for the use of unlicensed (and off-label) medicines and for those not approved by SMC (i.e. PACS2, IPTR) at The State Hospital can be found on the intranet.

Clinical Guidelines

- Current local guidelines include use of high dose antipsychotics, medication treatment for acutely disturbed or violent behaviour in adults (18 – 65yrs) and blood monitoring for antipsychotics,. These guidelines can be found on The State Hospital intranet; go to 'Departments', then 'Pharmacy', then 'Formulary and Treatment Guidance', to see full list.

- Audit of these and other guidelines are completed through the Clinical Effectiveness Programme of Work. This includes national benchmarking carried out by the Prescribing Observatory for Mental Health-UK (POMH-UK).

- New guidelines published by Scottish Government, NICE (National Institute for Health and Clinical Excellence) or SIGN (Scottish Intercollegiate Guidelines Network) regarding medication are reviewed for the hospital. National guidelines on lithium and clozapine monitoring are followed. Other professional guidance in relation to medicine use will also be considered.

Controlled Stationery

- Controlled stationery is any stationery, which can be used to obtain medicines for patients, e.g. controlled drug order books, pass and discharge prescription pads.

- Stocks of controlled stationery for use within the hospital shall be received, held secure and distributed by the pharmacy department. Only one book/pad of forms shall be held by each clinical area at any given time. At all times controlled stationery should be kept in a locked cupboard/drawer. All books/pads shall be identified as solely for the ordering of drugs and medicines.

- The person supplying the controlled stationery is responsible for its security whilst in transit. Once in the clinical area, the controlled stationery becomes the responsibility of the person in charge. Loss or theft of any controlled stationery should be reported immediately to the person in charge of the clinical area for investigation, which may involve the police. A DATIX incident should also be completed. In hospital, unused controlled stationery should be returned to the pharmacy department.

- Controlled drugs registers should be held in the clinical area for 2 years from the date of last entry, or for 7 years if the register contains destructions, as per the Misuse of Drugs Regulations. Once a register is completed, it should be sealed in a large envelope, signed by two people across the seal, dated and stored securely in the clinical area.

- Delivery notes should be held in the clinical area for 2 years from the date of last entry and thereafter disposed of as confidential waste.

- Prescription and administration records will be stored permanently in the Hospital Electronic Prescribing and Medicines Administration (HEPMA) system.

2.2. Consent

All healthcare professionals must obtain valid consent before giving any treatment or care. When obtaining valid consent it must be given voluntarily, by a legally competent person and the patient given sufficient information on which to consent.

2.3. Mental Health (Care and Treatment) (Scotland) Act 2003

For patients on detention who require electroconvulsive therapy (ECT) or continuation of drug treatment and when a patient has been detained for two months the pharmacy department notifies the patient's Responsible Medical Officer (RMO) that, if applicable, "Consent to Treatment" T2B or T3B Form is due.

If patient consent is given

- RMO should complete T2B Form and a photocopy made:
  - The copy is to be retained by the ward and filed in the ward treatment room so it is accessible when administering medicines. The original to be scanned, emailed to Mental Welfare Commission (MWC) then uploaded to RiO
  - The original form to be filed with the section papers in the original documents file in Medical Records

Further information is available in the 'The State Hospital T2B Consent to Treatment Form' and associated guidance (available on the intranet under Online Forms – Medicines – Mental Health (Care and Treatment) Scotland Act 2003.

If patient consent is not given

- RMO should contact the MWC and request a second opinion Designated Medical Practitioner (DMP).

- RMO should prepare a summary of the case and proposed treatment plan. If the DMPgiving the second opinion agrees with the treatment plan, he/she will complete T3B Form.

- The DMP giving the second opinion should ensure the T3B Form is given to the RMO secretary for copying. The original being filed with the section papers.

- As with T2B Form, a photocopy of the T3B Form is required:
  - The copy is to be retained by the ward and filed in the ward treatment room so it is accessible when administering medicines.
  - The original to be scanned, emailed to MWC then uploaded to RiO
  - The original form to be filed with the section papers in the original documents file in Medical Records.

For acutely disturbed or violent behaviour

- Should a patient receive intramuscular medication not covered by a T3B their RMO/Duty RMO should be notified as soon as is practicably possible and they will then submit a report to the MWC detailing the treatment given and reasons surrounding it (T4).

- As with T2B and T3B forms, a copy of the T4 Form is required:
  - The copy is to be retained by the ward and filed in the ward treatment room so it is accessible when administering medicines.
  - The original to be scanned, emailed to Mental Welfare Commission then uploaded to RiO

- The original form to be filed with the section papers in the original documents file in Medical Records.

Advice notes from the Mental Welfare Committee on completion can be found at: https://www.mwcscot.org.uk/sites/default/files/2019-06/consent_to_treatment_2018.pdf

3. PRESCRIBING GUIDELINES

Medicines may only be prescribed for and supplied to patients who are registered within the hospital.

Healthcare professionals should only administer medicines, which have been correctly prescribed by a UK registered doctor, dentist or an independent/supplementary prescriber.

3.1 General information for Prescribers

See Appendix 1 - General information for Prescribers.

3.2 External physical health prescribing recommendations

- **Outpatient Clinics/Accident and Emergency (A & E)**
  A printed copy of the HEPMA Medicines Administration Chart (MAC report) and Medicines Administration Profile (MAP report) must accompany the patient on all clinical appointments out with the hospital for information on current medication.
  Any new medication recommended at an outpatient clinic will be communicated by letter to The State Hospital GP Services who will prescribe onto HEPMA.
  Any medication recommendation made on an A&E prescription out of hours requires to be prescribed on HEPMA by the duty doctor.

- **NHS 24**
  Any medication recommendation made via NHS24 requires to be prescribed on HEPMA by the duty doctor.

3.3 Telephoned and emailed prescriptions from medical personnel

These guidelines are only to be implemented if the electronic HEPMA system is unavailable and in conjunction with the 'General standards for the administration of all medicines' as detailed in Section 5. See Appendix 2 - Procedure for telephoned and emailed prescriptions from medical personnel and Appendix 2a - E-mail confirmation of telephoned prescribing information.

3.4 Verbal prescription by a prescriber present at an emergency

- These guidelines are to be implemented in conjunction with the 'General standards for the administration of all medicines' as detailed in Section 5.

- This **must only** be carried out in exceptional circumstances as per The Human Medicines Regulations 2012 (legislation.gov.uk).

- It is recognised that during an emergency a written prescription may not be available prior to the administration of a medicine.

- In all cases the doctor will advise upon the administration of all medicines if no written prescription is available.

Prescribing/Verbal instruction

A verbal prescription must be given by the doctor, stating medicine name, dose and route of administration.

Selecting and preparing

- The medicine must be selected and prepared by either a doctor or a registered nurse.
- The individual who prepares the medicine must ensure that the correct medicine is selected by verbally repeating the medicine's name, dose and route of administration to the doctor who ordered it.
- The prepared medicine, along with its original packaging, must be produced to be checked by the doctor.

Administering

The two registered healthcare professionals are required to be present when the medicine is administered. This should be the prescribing doctor and the individual (registered nurse or doctor) who prepared the medicine.

Recording

- During an emergency, a registered healthcare professional must keep an accurate record of all medicines which are administered. All medicine containers e.g. empty ampoules must be kept until a formal record is completed and agreed by the healthcare professionals who were present.
- All medicines, which were administered, must be accurately recorded onto HEPMA by the doctor who verbally prescribed them and witnessed on HEPMA by another registered healthcare professional who witnessed the procedure.

3.5 Prescribing for Older People

Older people, especially the very old, require special care and consideration from prescribers. First, always question whether a drug is indicated at all and consider:

Limit range	It is a sensible policy to prescribe from a limited range of medicines and to be thoroughly familiar with their effects in the elderly.
Reduce dose	Dosage should generally be substantially lower than for younger patients and it is common to start with about 50% of the adult dose.
Review regularly	Review repeat prescriptions regularly. It may be possible to stop the medicine or it may be necessary to reduce the dose to match diminishing renal function.
Simplify regimens	Elderly patients benefit from simple treatment regimens. Only medicines with a clear indication should be prescribed and whenever possible given once or twice daily. In particular, regimens which call for a confusing array of dosage intervals should be avoided.
Explain clearly	Write full instructions on every prescription (including repeat prescriptions) so that containers can be properly labelled with full directions. Avoid imprecision's like 'as directed'.

3.6 Patient Information Leaflets

- Patient information leaflets are available on The State Hospital intranet from the 'Choice and Medication Website' (click Departments – Pharmacy – Medicines Information links – NHS24 Choice and Medication). These leaflets are available in both simple and more complex formats, some with pictures, to help patient understand their psychotropic medication. Contact pharmacy on site if further information is required.

- Individualised medicine summary information is also offered to patients from the web-based Medicines: A Patient Profile Summary (MaPPs) site. These cover medicines for both mental and physical health.

- For those patients with a sensory impairment (hearing/visual) or requiring translation/interpretation of medicine information this will be accommodated on an individual basis.

3.7 Concordance with Medication Therapy

- Concordance is when a patient agrees to take their prescribed medicine and continues to take it. It can be a problem in the mental health setting as elsewhere. Factors which can affect a patient's willingness to accept their medicine are:
  - Patient does not understand the reason for taking the medicine or has poor insight into their illness
  - Perceived lack of efficacy
  - Real or perceived side effects
  - Unacceptable formulation e.g. unpleasant taste or texture
  - Physical difficulty in taking the medicine e.g. swallowing

- Current mental health guidance emphasise the need to reach agreement with the patient. This requires a multidisciplinary approach where health professionals (doctors, pharmacists, nurses) and carers all contribute and take time to explain to the patient (and relatives) why the medicine is needed and the potential adverse effects of treatment. Advising the patient of the possibility of alternative treatments may encourage the patient to seek advice rather than merely abandon unacceptable treatment. Monitoring for antipsychotic effects using GASS/LUNSERS rating scales may alert staff to potential problems experienced by the patient. The impact of positive re-enforcement from the multidisciplinary team should not be underestimated.

3.8 Prescribing in a multicultural, multi-faith society

- Prescribing and administering of medicines needs to be sensitive to cultural and religious beliefs.

- Information regarding cultural and religious beliefs should be recorded in the healthcare record, and where appropriate discussed with the patient when medicines need to be prescribed.

- Advice on the origin of medicines and excipients is available from the pharmacy department.

3.9 Patient Group Directions (PGD)

- A PGD is a specific written instruction for the supply and administration of a named medicine or vaccine in an identified clinical situation. It applies to groups of patients who may not be individually identified before presenting for treatment. PGDs must be developed by a doctor, nurse and a pharmacist, comply with the legislation and receive State Hospital Medicines Committee approval. PGDs apply to healthcare professional groups such as pharmacists, podiatrists and dieticians as well as nurses. All State Hospital PGDs are based on NHS Lothian

or national NHS Scotland documents, which have gone through a recognised approval process.

3.10 Self-Medication Programmes

- Procedures available from NHS Lothian if appropriate (only Stage 1). Contact pharmacy for more information.

- On an individual basis, supervised self-administration of insulin injections can be undertaken following specialist advice and instruction.

3.11 Covert administration of medicines

- Covert administration is the administration of any medicine in disguised form. This usually involves giving medication disguised in food or drink. It is generally unlawful to administer medication without the patient's consent. Guidance on the use of covert administration is given by the Mental Welfare Commission of Scotland: Covert Medication (mwcscot.org.uk)

3.12 Non-Medical Prescribers (NMP)

- A pharmacist registered as an independent prescriber on the General Pharmaceutical Council (GPhC) professional register may undertake independent prescribing at The State Hospital. They can prescribe only within their competency and for which they are prepared to accept legal responsibility, including off-label medicines, unlicensed medicines and controlled drugs.

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- An NMP Pharmacist should not supply a medicine he/she has prescribed.

- NMP Pharmacists must immediately record any prescription, together with other details in the consultation with the patient, in the patient record on RiO.

- NMP Pharmacists must have the opportunity to maintain skills through regular practice and must be able to demonstrate Continued Professional Development (CPD) in this area of practice. They are also responsible for any reporting adverse events e.g. local DATIX or via Yellow Card.

3.13 Clozapine

Clozapine is an antipsychotic medication licensed for treatment resistant schizophrenia. See Appendix 3 – Clozapine.

Patients on clozapine require regular mandatory Full Blood Count monitoring. It is therefore classified as a high-risk medicine and under no circumstances must it be given to a patient:

- not prescribed it or those not registered with a clozapine patient monitoring service.
- to patients prescribed clozapine without a validated blood result.

Given the long stay and close supervision environment of the hospital clozapine is supplied to the wards as stock supplies and not individually named patient items.

3.14 Nicotine Replacement Therapy (NRT)

- The State Hospital maintains a completely smoke free environment.

- All patients admitted to The State Hospital who are smokers, should be assessed by the admitting doctor and commenced on Nicotine Replacement Therapy (NRT) if they wish. Refer to the Smoke Free Procedure for NRT prescribing guidance.

- Smoking cessation can result in slower metabolism of certain medicines and a rise in blood levels e.g. with clozapine. Pharmacy can advise.

3.15 Blood Borne Virus (BBV) Treatment

- Patients at the State Hospital are referred to an Infectious Disease Specialist in NHS Lanarkshire via the Infection Control Nurse as required. They then advise on BBV treatments as necessary.

- Hepatitis C treatments are reimbursed from the patient's home health board.

3.17 Covid-19

For medicine and oxygen treatment in Covid-19 patients please refer to the latest State Hospital Covid-19 Clinical Care Support Documentation.

4. ORDERING AND STORAGE OF MEDICINES

4.1 Ordering of Medicines

Routine Ordering

- Medicines are supplied to The State Hospital from Pharmacy Services in NHS Lothian. The pharmacy technician on site will attend each ward on a Wednesday or Thursday and will order a minimum of a ten day supply of medicines using a pre-printed indent form. The pharmacy indent will be processed and kept within the Pharmacy Department. The empty pharmacy box will be collected from the ward on a Friday morning and will be returned with the medicine order on a Tuesday afternoon.

- A critical loss of pharmacy staff plan is available in the event no pharmacy staff are on site to complete the orders.

Non-routine Ordering

- When a newly prescribed medicine is not available in ward stock, the pharmacy staff should be contacted as soon as possible. .

- If pharmacy staff are not present, the Senior Clinical Cover on site should be contacted and ensure the medicine is obtained using the agreed procedure in section below.

Recorded Drugs

A Recorded Drug procedure applies to all schedule 3 controlled drugs plus benzodiazepine and opiate related analgesics (in all forms) that have an abuse potential and therefore require close monitoring. For full procedure, see Appendix 4 - Procedure for ordering, storage and administration of recorded drugs and Appendix 4a - Recorded Drug Documentation.

Controlled Drugs

Each Health Board in Scotland and other designated bodies including The State Hospitals Board for Scotland have an Accountable Officer who is responsible for the safe management and use of controlled drugs within their organisation. The Associate Medical Director is the Accountable Officer at The State Hospital. For all procedures relating to controlled drugs, see Appendix 5 - Procedure for ordering, storage and administration of controlled drugs, and Appendix 5a Controlled drugs: checking liquid preparation balances.

Obtaining a Medicine when Pharmacy is closed

Procedures for obtaining a medicine when the pharmacy is closed:
- Transfer of Medicines when the Pharmacy is closed
- Withdrawal of Medicines from the Emergency Drug Cupboard
- Obtaining a Medicine from another Ward
- Emergency Medicine Supply

For full procedure see:
- Appendix 6 - Procedure for obtaining a medicine when the pharmacy is closed
- Appendix 6a - Urgent Medicine Request Form
- Appendix 6b - Urgent Ward Supply List
- Appendix 6c - Medicine Transfer Form
- Appendix 6d - Out of Hours Order Request Form

Ordering of Pass and Discharge Medicines

In most cases, patients going on transfer visits and final transfer to other forensic sites pharmacy will have liaised in advance with the receiving unit to make sure the patients current medication is in stock. No medication (other than named patient items) will therefore need to be sent with the patient. For other occasions, the following should be followed:

- **Pass Prescriptions**

When patients are going out on a period of leave from hospital and a supply of medicines is required, the pharmacy must be notified **at least three working days prior to leave.**

- Pharmacy will notify medical staff in advance for any prescription required.
- The Pass Prescription sheet will be checked and signed by the clinical pharmacist.
- The prescription will then be sent to the supplying pharmacy department in NHS Lothian for dispensing.
- The pass medicines will be delivered to the ward on a Tuesday or Friday afternoon.
- The pass medicines should be checked by the nurse receiving the order and stored appropriately (see Section 4.3) until required.
- On escorted leave, staff must check the directions on the pass medication bottle/box with patient's current HEPMA prescription prior to departure. Copies of MAC and MAP reports should be taken on the escort.
- For leave not involving a visit to another hospital then record on the MAC report, which medicine/s have been given, at what time and the reason in the case of as required medicines. If only as required medication has been given then this information can be recorded on HEPMA on return to the State Hospital.
- If regular medication has been given and the medicine has been recorded as not administered due to short term leave on HEPMA in the patient's absence from the ward, the MAC report should be scanned and uploaded to Rio along with a Rio entry stating what medication the patient received whilst on leave.

- **Discharge Prescriptions**

Discharge medicines are issued to ensure continuity of medication until further supplies can be prescribed by the receiving hospital, prison or community services.

- Pharmacy will notify medical staff in advance for any discharges required.
- The 'Immediate Discharge Letter' should be completed by a prescriber (at least three working days prior to the discharge date).
- The discharge prescription should be checked and signed by the clinical pharmacist when possible.

- The ‘Immediate Discharge Letter’ will be sent to the Pharmacy Department in NHS Lothian for dispensing.
- The quantity of medicines supplied on discharge will be a minimum seven day supply.
- The discharge medicines will be delivered to the ward on a Tuesday or Friday afternoon.
- The discharge medicines should be checked by the nurse receiving the order and stored appropriately (see Section 4.3) until required.

4.2 Transport of Medicines

Maintaining security and quality - General

- A record must be kept at each step where a medicine changes hands during its delivery from the place of issue to the final destination.

- The person responsible for the medicine at each point of the transportation chain must be identifiable.

- Containers and packages must be kept securely or under surveillance whilst awaiting collection or in transit between the place of issue and the final destination.

- Containers and packages awaiting collection or in transit must be kept in the appropriate storage conditions to maintain the quality of their contents. This includes maintaining the cold chain where required.

- All medicines must be transported in sealed tamper evident containers or packages.

- All containers and packages must be clearly labelled with the final destination.

- Persons issuing medicines must advise of any health and safety risks and special storage conditions associated with the transport of a medicine at the time of collection.

- Responsibility for security and maintenance of appropriate storage conditions remains with those collecting the sealed container until delivery is made, and documentation is signed for receipt.

- Managers of staff groups responsible for transporting medicines are responsible for ensuring staff are trained to ensure an understanding of the need for security and relevant procedures, including action to be taken in the event of physical threat.

At ward level

- Upon delivery to the ward, the Sealed Package Receipt must be signed. This signed receipt should then be sent to Pharmacy Dept, The State Hospital. The contents of the transit container must be unlocked and unpacked by the designated nurse on the day of delivery.

- The stock must be checked against the pharmacy indent and stored as soon as possible. The designated nurse must sign the receipt. Any discrepancy between the contents and indent must be reported immediately to the Pharmacy. Ward staff will then be guided by their instructions.

Patient Possession of Medicine Devices out with the Ward

- Under some circumstances, patients can be given certain medicine devices e.g. GTN sprays or reliever inhalers to carry in their possession within the grounds whilst unescorted e.g. grounds access, for their physical wellbeing. The decision for this to happen must be discussed and logged by the Clinical Team via the Unescorted Grounds Access Policy.

- Each area must make local arrangements to log the handover of the device to the patient and also log in its safe return in a timely manner. If the patient is undertaking a session in the Skye Centre then the device must be stored in a designated locked cupboard during the session again using some form of log in and out system.

- Any administrations off ward must be recorded on the patient's prescription administration record.

- If the patient does not return to the ward with the device then Security must be alerted and immediate action should be taken to locate the product. A DATIX must be entered as soon as is practically possible.

Maintaining the cold chain

- Sensitivity to changes in temperature varies depending on the medicine. The manufacturer's literature must be consulted and other expert advice must be sought if medicines that require to be stored at temperatures out with normal ambient temperatures, that is in a fridge or freezer, need to be transported.

- If medicines that are sensitive to temperature changes are to be transported on an occasional basis, the following good practice should be followed:
  - The medicine must be held out with the recommended storage temperature for the minimum time possible. Maximum exposure time allowed depends on the sensitivity of the product.
  - Quality Assurance (QA) tested cold boxes or expanded polystyrene boxes must be used.

Use of taxis and couriers

- Taxis and couriers may only be used to transport medicines from or between hospitals if hospital transport is not available.

- Only taxis and couriers able to produce identification may be used to transport medicines.

- Taxis and couriers used by hospitals must always be ordered via the hospital reception.

- The driver or courier must sign for collection of medicines to be transported.

Transfer of medicines between wards and other hospitals

- When a patient is transferred to another clinical area within the same hospital site, or at a different hospital site, the nurse responsible for the patient's care must make arrangements to ensure that required doses of medicines are not missed or delayed. The patient's medicines supplied for the individual patient's use and other prescribed medicines not immediately available in the receiving clinical area must be transferred.

- Where medicines need to accompany a patient who is being transferred, they must be placed in a sealed bag. As the responsibility for the patient is transferred from one nurse or other clinician to another, the responsibility for the safety and security of the medicines is also transferred. A Medicine Transfer Form must be completed.

- Where the responsibility for a patient is transferred from one clinician to another, or from one clinical area to another, then the clinician receiving the patient must check that all medicines that are in the process of being administered during the transfer are correct for the patient. This is part of the series of checks that are required at transfer.

Custodial Escorts

When a pass prescription is needed to be taken for a patient going to court under a custodial escort the medicine/s should remain in the possession of The State Hospital nurse at all times. The State Hospital nurse is responsible for administration of the medicine/s according to the directions on the pass medication bottle/box which have been previously checked from the patient's current HEPMA prescription prior to departure. A copy of the MAC and MAP reports should be taken on the escort. The times of medicines administration need to be logged on the Prison Escort Record at the point of departure from the hospital (including any as required medicines) to ensure the custodial escort team are aware and can make arrangements to facilitate the appropriate medicine administrations by The State Hospital nurse as necessary. On return to The State Hospital, the nurse must then record on HEPMA which medicine/s have been given and at what time. The reason in the case of an as required medicine m be documented on RiO.

4.3 Storage of Medicines

Security

- The Nurse in Charge is responsible for the safe custody of all medicines in his/her ward. In the absence of the Nurse in Charge, he/she may delegate the nurse in charge of the ward to be in possession of the keys for medicine storage facilities. Keys are signed for in the security folder at the start of every shift or when keys are exchanged.

- All medicine cupboards and refrigerators in which medicines are stored must be kept locked when not in use.

- Nurse in Charge must ensure that the keys of the medicines cupboard are kept securely.

- The key of the Controlled Drugs Cupboard must be kept separately and must be carried by the nurse in charge of the ward at all times (see Section 10.1).

- Controlled drug and medicine cupboards and refrigerators must not be used for storage of other materials.

Medicine Cupboards

In accordance with Circular NHS 1979 (Gen) 11 - Control of Medicines in Hospital Wards and Departments - medicines must be separated into categories and stored in lockable cupboards. The cupboards must also comply with current British Standard (BS2881).
.
Medicines must be separated by cupboards and stocked systematically, preferably in alphabetically approved name as follows:

a) **Controlled Drugs** must be kept in a cupboard reserved for preparations controlled by the Misuse of Drug Regulations, 2001 Schedules 2 and 3. This will be a locked cupboard within a locked cupboard.

   Regular stock checks should be undertaken by registered pharmacy staff at least four monthly to:
   - ensure stock rotation is maintained
   - confirm physical stock balances with records in Controlled Drug Register
   - confirm that the records are complete

b) **Medicines intended for internal use** must be kept in a separate cupboard. Separate areas should be used for:
   - injections
   - tablets and capsules

- liquid preparations

Mouthwashes, gargles and throat lozenges should be stored with internal medicines but kept on a separate shelf from the above.

c) **Medicines intended for external use** must be kept in a separate cupboard.

d) **Disinfectants and antiseptics** issued by Pharmacy must be kept in a separate cupboard.

e) **Medicines requiring refrigeration** must be stored in a locked refrigerator designated for the purpose of medicine storage and not shared with food or drink. Internal and external preparations must be stored on separate shelves within the refrigerator. The temperature of the refrigerator must be monitored on each working day using a calibrated maximum-minimum thermometer or other approved monitoring device. The person monitoring the temperature must complete and sign the Medicines Refrigerator Temperature Monitoring Log (Appendix 7). If the temperature is outside the normal range contact Estates and Pharmacy. The refrigerator should be defrosted regularly.

f) **Urine testing reagents** must be kept in a lockable cupboard and sited where urine testing is carried out.

g) **Intravenous infusions, sterile fluids for topical use and bladder irrigation** should be kept in a cupboard.

h) **Medicines for Medical Emergencies** are stored with Medical Emergency Equipment of each Hub. The contents are reviewed regularly by the Medicines Committee in line with policy updates.

Medicine Trolleys

- Medicines trolleys must only contain medicines currently in use.

- Medicine trolleys fitted with appropriate locks are provided. They must be locked and padlocked to a fixed point on the wall or floor when not in use.

- Tablets and capsules in the trolley should be displayed in alphabetical order by approved name and in ascending order of product strength e.g. 10mg, 20mg….

Patients' Own Medicines

- Any medicines dispensed by an acute hospital pharmacy on discharge (following a patient's short term visit/admission) can be used for administration for that patient if appropriate, following review, and once prescribed on HEPMA.

- Otherwise only medicines prescribed following admission to the State Hospial and supplied via NHS Lothian Pharmacy may be administered, except in extreme circumstances with pharmacy staff authorisation.

Stock Control

- The pharmacy technician will check stocks contained in the medicines cupboards on a weekly basis to:
  - ensure stock rotation is maintained
  - review stock levels

- Nursing staff remain responsible for checking expiry dates of medicines prior to administration. Nursing staff should notify Pharmacy of any items, which they discover have a short expiry date.

4.4 Returns and Disposal of Medicines (see Appendix 8 – Procedure for returns and disposal of medicines)

- All items must be checked and recorded on the ward returns book by the pharmacy technician before either returning to the pharmacy cupboard in the Health Centre or disposal on ward.

- Stock items will only be accepted for return if the items have been removed from the ward stock list as part of ward-stock list review, there has been significant drop in ward usage and the product can be used elsewhere or ward closure.

4.5 Company Medical Representatives

- Company medical representatives must observe the ABPI (Association of British Pharmaceutical Industry) Code of Practice in the promotion of medicines.

- Medical representatives are not authorised to come into the State Hospital unless for a relevant training purpose at the multidisciplinary journal club or via a specific arrangement by Pharmacy.

- Offers of hospitality (including the payment of travelling or accommodation expenses) from medical representatives for meetings or events for professional or scientific purposes, or for the promotion of a medicinal product may only be accepted if the hospitality is strictly limited to the main purpose of the meeting or event, and the person accepting the hospitality is a health professional.

- Hospital staff must not disclose information on medicine costs to representatives.

- Information on hospital medicine costs and prices is confidential.

4.6 Defective medicines

- Official notification of a defective medicine is issued as a Medicines Recall, from Scottish/UK Government, from the Medicines and Healthcare products Regulatory Agency (MHRA) or from the manufacturer/supplier and include the required timescale for action.

- NHS Lothian will ensure that there are systems in place to check if the defective medicine has been issued and withdraw from use any defective medicine that has been issued, within the required timescale for action.

- Defective medicines or potentially defective medicines must be withdrawn from use in an appropriate timescale to minimise risk to patients.

- If any member of staff has reason to believe that a medicine is defective, he or she must inform a pharmacist immediately. The pharmacist is responsible for taking appropriate action including completion of an incident form if applicable.

- The person who discovers the defect must ensure that the product, container and other packaging are retained. If the defect has been discovered following reconstitution or mixing with another preparation, then the mixture, remaining unmixed constituents, and all containers and other packaging must also be retained. All retained materials must be placed in a sealed container, clearly marked ‘Do not use’, and returned to the pharmacy as soon as possible.

- Local reports of defective medicines will be investigated and the Scottish Government informed (Pharmacy Division) if there are implications for the rest of the health service.

4.7 Medicine samples

Staff must not accept products including medicines or dressings from a medical representative.

5. ADMINISTRATION OF MEDICINES

Further details are available in Appendix 9 - Procedure for the administration of all medicines including role of observing nurse

5.1 General Standards for the Administration of All Medicines

- In accordance with the NMC only a first level registered nurse and second level nurse, each of whom has demonstrated the necessary knowledge and competence, will be able to administer medicine without involving another person. **However it is considered best practice in The State Hospital for a second member of nursing staff to be involved.**

- ONLY registered nurses may administer prescribed medicines and only after their competency status has been assured by a Senior Charge Nurse or senior member of registered nursing staff. This will also be the case following a medication DATIX investigation if appropriate.

- Student nurses may only be involved in the administration of prescribed medicines under the direct supervision of a registered nurse. These situations should always be utilised as a teaching opportunity. It is the responsibility of the registered nurse to determine from the student that they are competent in the activities required of them at the time. All student nurse administrations on HEPMA must be witnessed by a registered nurse.

Calculations

Each registered healthcare professional involved in the administration process must carry out medicine dosage calculations independently to ensure accuracy. Any calculations needed must be double checked where practicable by a second person and uncertainties raised with the prescriber or a pharmacy professional. In calculations involving patients' weight the date of the weight measurement must be recorded.

Education

- Consideration must be given to the learning needs of all staff and patients. Therefore, where possible the administration of medicines should be used as a learning opportunity.

- Attention is drawn to the Royal College of Nursing and the Royal Pharmaceutical Society's Professional Guidance on the Administration of Medicines in Healthcare Settings.

- A registered healthcare professional witness is, however, required to participate in the administration of:
  - Controlled Drugs
  - Insulin
  - Telephoned prescriptions
  - Verbally prescribed medicines administered in an emergency in the presence of a doctor

- Additional training will be given and competencies checked for the administration of non-routine medicines within the hospital e.g. oral cytotoxic medicines, medicines via electronic medical devices, End of Life Care.

5.2 Preparation and Administration of Injectable medicines

General Guidelines

- These guidelines are to be implemented in conjunction with the 'General standards for the administration of all medicines' as detailed within Section 5.

- Each clinical area **must** have a designated area for the preparation of medicines for injection. It should be uncluttered, clean and quiet.

- Wherever possible, injections that are available in a ready to use form should be used.

- Injections prepared in near-patient areas should be administered immediately and NOT stored.

- Injections should be clearly identifiable at all stages during preparation and administration (e.g. by labelling or another agreed safe system).

- All medicines administered by an injection should be checked by a witness.

- Check the formulation, dose and diluent against the prescription and the product information. Note that some formulations of medicines are similar, e.g. plastic ampoules and nebules. Check the route of administration.

- Decontaminate hands prior to donning a pair of disposable gloves.

- Assemble syringe(s) and needle(s) – peel back wrappers – do not push through wrappers as this will result in particulate contamination.

- Use a 'no-touch' technique, i.e. avoid touching areas where bacterial contamination may be introduced e.g. syringe tips, the surfaces of the plunger that go inside the syringe barrel, needles, vial tops, etc.

Information sources

Further information can be obtained from:
- Manufacturers information, e.g. package insert
- Pharmacy Department
- British National Formulary
- eMC (electronic Medicines Compendium)
- GP/Practice Nurse
- Guidance on the Administration to Adults of Oil-based Depot and other Long-Acting Intramuscular Antipsychotic Injections (see pharmacy/formulary and treatment guidance on the intranet)

For further details see Appendix 10 - Procedure for preparation and administration of injectable medicines including insulin.

Intravenous injections for emergency use are covered in Appendix 11 - Procedures for intravenous administration for emergency use.

5.3 Vaccination and Immunisation

- In order to enhance disease prevention, appropriately trained healthcare professionals are required to participate in vaccination programmes and administer vaccines to patients (or staff in relation to influenza). These vaccines will have been individually prescribed or be covered by a Patient Group Direction (PGD). (See Section 3.10).

- Nurses administering vaccines under a PGD must have received immunisation and vaccination training, anaphylaxis and basic life support training.

Storage and distribution of vaccines

For vaccines to remain effective it is particularly important that the "cold chain" is maintained during distribution and storage.

General Information

Areas requiring to stock vaccines should have a written, current, approved procedure for monitoring the safe storage of vaccines which should be stored in a designated fridge with:
- fan assisted air circulation (where possible)
- temperature set between 2º and 8º centigrade
- max/min thermometer in place (calibrated every 6 months if possible)

Good practice procedures:
- nominate responsible person for vaccines in each clinical area
- written local procedures
- oral polio stored in the coolest part of the fridge
- no more than 50% of internal volume filled
- ensure electricity supply cannot be switched off
- defrost fridge regularly
- daily monitoring and recording of fridge temperature (minimum, maximum and current)
- infrequent opening of fridge door - no storage of food drink or specimens
- stock should be rotated according to expiry dates
- spillage should be wiped up using paper towel soaked in 1% hypochlorite followed by hot soapy water - dispose of as clinical waste

Only the number of doses expected to be used at a session should be removed from the fridge. Vaccines removed from the fridge should be dealt with as follows:
- unopened vials/ampoules if kept at room temperature for < 2hours return to the fridge Annotate with "use first"
- opened vials/ampoules with no preservative or live vaccine discard within an hour or end of session whichever is sooner
- opened vials/ampoules with preservative and oral polio vaccine discard within 3 hours or end of session whichever is sooner
- reconstituted vaccine: discard any vaccine not used within the time specified by the manufacturer

Local procedures should be in place for ordering, checking, delivery and maintenance of vaccine stocks. Regular stocktaking should be carried out and out-of-date vaccines disposed of as described in Appendix 8 - Procedure for returns and disposal of medicines.

Administration of Vaccines

By intramuscular and subcutaneous route see Appendix 10 - Procedure for preparation and administration of injectable medicines including insulin.

5.4 Guidance for the Administration of Adrenaline in Anaphylaxis

- Although extremely rare, all healthcare professionals involved in the administration of medicines should be aware of the potential for anaphylaxis to occur and be aware of local procedures or operational policies on how to deal with such emergencies see CP01 Medical Emergency Policy and Procedure.

- Anaphylaxis is a severe allergic reaction affecting the whole body. It is a serious, potentially life-threatening condition that may develop in sensitised individuals within minutes of exposure to an allergen, but sometimes may develop after hours. Causes of anaphylaxis include:
  - injection of a particular drug or vaccine
  - sting of an insect
  - ingestion of a particular food or medicine
  - exposure to latex

- The allergic reaction causes chemical substances including histamine to be released into the circulation. These chemicals act on blood vessels causing them to dilate and increasing their permeability, they also constrict air passages by smooth muscle contraction and swelling of the bronchial tissues. The treatment for severe anaphylaxis is oxygen and an intramuscular injection of adrenaline. Resuscitation may be required in the collapsed individual.

- A healthcare professional may administer adrenaline for the treatment of anaphylaxis without a registered medical practitioner's prescription provided that:
  - The healthcare professional has received training in the treatment of anaphylaxis including the administration of adrenaline. Equipment and staff trained in CPR must be available on site.

  - Signs of severe anaphylaxis are present. These can include:
    - stridor, wheezing
    - rapid weak pulse (low blood pressure)
    - collapse

  - There may also be:
    - urticarial rash
    - erythema
    - swelling of the face and neck (angioedema)
    - nausea and vomiting
    - abdominal cramps

  - The anaphylactic reaction has occurred following the injection of a drug/vaccine either given by the healthcare professional or in the presence of the healthcare professional.

  - The administration of adrenaline **must be** recorded in the patient's records.

5.5 Procedures for administration of medicines by other identified routes

For further details, refer to Appendix 12 – Additional procedures for administration by other identified routes:

- Aural
- Inhaled
- Nasal
- Nebulised
- Opthalmic
- Oral
- Rectal
- Topical
- Transdermal

6. CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH (COSHH) REGULATIONS

- Occupational exposure to harmful medicinal products may occur accidentally, or incidentally, during their preparation and administration to patients.

- Where harmful properties exist, exposure must be risk assessed according to COSHH Regulations and Hospital Policy. Recommendations will depend upon the degree of exposure. Handling of medicines should be considered in the risk assessment of pregnant staff.

- The adverse effects of exposure to medicines may be obvious, others may be insidious. Additionally, literature on the subject is incomplete, as some risks are well documented while there is little information on others.

- The following broad categories are considered harmful. More specific information to help you with your risk assessment is available from manufacturers' data sheet/Summary of Product Characteristics (SPC), Pharmacy or the Hospital Health and Safety Adviser.

6.1 Cytotoxics

Working practices must avoid the possibility of exposure as inhalation or ingestion may be harmful since some cytotoxics are carcinogenic, mutagenic or teratogenic. Gloves should be worn. Contact with the skin may have local irritant effects and lipid based products may be absorbed. Therefore reconstitution and preparation of injections are performed in Pharmacy and tablets must not be halved or crushed. If a patient is unable to swallow their medication contact Pharmacy. Use disposable measuring spoons and cups. (These should be labelled up for sole use with oral chemotherapy and disposed of weekly or at the end of treatment whichever is sooner. Direct skin contact must be avoided by taking the precautions recommended in individual COSHH assessments.

6.2 Sensitisers

Some medicines cause sensitisation with a risk of asthma or allergic dermatitis, e.g. antibiotics, chlorpromazine, other phenothiazines and carbamazepine. In order to reduce this risk, it is recommended to use gloves and avoid the inhalation of dust during reconstitution and administration of these medicines.

6.3 Skin irritants

Gloves are recommended. National guidance on the use of particular gloves for particular procedures is awaited.

6.4 Inhalants

Any medicine that is nebulised or vaporised is more hazardous because the lungs are a weaker barrier than skin. Written operating policies are normally required (e.g. for pentamidine and ribavirin) and precautions must be taken when appropriate.

6.5 Topical medicines

Gloves are recommended for the application of medicines, such as topical steroids, or when applying medicated patches, which may present a risk.

7. MEDICATION INCIDENT RECORDING (includes "near-misses")

7.1 Policy

Read in conjunction with the State Hospital Incident Reporting and Review policy (RR01):

- All medication incidents require a sensitive, thorough and careful investigation, which takes full account of the circumstances and context of the event, and the position of the practitioner involved. This is necessary so that a professional and managerial decision may be properly reached on the appropriate way to proceed.

- All medicines must be prescribed and administered in accordance with the guidelines contained within this document.

- The Procedure for Medication Incidents must be followed by all staff when an incident occurs or is discovered.

- The Policy and Procedures apply to all medicines and diagnostic agents, and to all routes of administration, in place to ensure patient safety.

7.2 Definition

A medication incident occurs when:
- the wrong medicine is prescribed, administered or dispensed to a patient
- an unsuitable (e.g. expired or incorrectly stored) medicine is supplied or administered to a patient
- a medicine to which a patient has an allergy is prescribed or administered
- a medicine is administered to the wrong patient
- a medicine is administered via a route other than that prescribed
- the wrong dose or strength of a medicine is prescribed, administered or dispensed to a patient
- the wrong concentration is prescribed or administered
- the wrong frequency (time between doses) of medicine is prescribed or administered
- the wrong rate of administration of a medicine is prescribed or set up for administration
- a dose of a medicine is significantly delayed or missed, either because it has not been prescribed, administered or dispensed, timeously
- the medicine dispensed or supplied to a patient is labelled with the wrong medicine name, strength or dosage instructions
- any other medication prescribing, administration or dispensing error occurs which may result in adverse patient outcome
- prescription or administration is not correctly recorded

A breach of security is also a medication incident, and includes any deviation from the procedures that causes actual or potential loss or theft of medicines.

Examples of such incidents include:
- medicines are left unattended at an insecure location
- signatures are not received when a medicine changes hands
- medicines are found to be missing
- controlled stationery is found to be missing or in possession of unauthorised person
- a key for medicine storage areas is found to be missing
- where controlled drug legislation has been contravened

A “near-miss” occurs when one of the following is present:
- an incorrect prescription or an incorrect supply of medicine is identified which **may** have resulted in an adverse effect on patient outcome
- a situation is identified that **may** have resulted in an inappropriate/incorrect supply of medicine

7.3 Review

All medication incidents are collated and submitted to the Patient Safety Group and Medicines Committee, who agree and implement plans for preventative action. ,

7.4 Procedure for Medication Incidents

All medication incidents must be reported onto the hospital risk management software (DATIX) as Direct Patient Care Incidents. The State Hospital Incident Reporting and Review Policy (RR01) should be followed.

Action to be taken by the person making or discovering the incident

- Ensure that any immediate corrective action required to reduce adverse effects to the patient is taken and the line manager is informed

- Immediately inform the responsible manager:
  - Nurses inform the nurse-in-charge or immediate line manager
  - Medical staff inform the senior doctor
  - Pharmacy staff inform the lead pharmacist
  - Other staff inform the nurse-in-charge and their line manager

- Record the incident/near miss onto DATIX within 48 hours of the incident

Action to be taken by the responsible manager

- The documentation process must be fully completed

- Consult with relevant professional colleagues, and decide on any further action required

- Medication incidents must always be reported to the consultant or GP responsible for the patient's care, or relevant duty doctor, who must ensure that the incident is recorded in the patient's medical notes. The consultant/GP will also inform the patient if he/she deems it necessary to do so

- The DATIX incident is automatically flagged to the Director of Nursing and Operations and the Lead Pharmacist

- Investigation and grading of Incident is via DIF2 section of DATIX (as per Incident Reporting and Review Policy (RRO1) in partnership with the Lead Pharmacist, Director of Nursing and Operations, Associate Medical Director or Medical Director as appropriate.

8. MEDICAL GASES

For further details, refer to Appendix 13 Procedures for use, storage and handling of medical gases and Appendix 13a Oxygen Cylinder Supply List.

Oxygen is the only medical gas used at The State Hospital and is for medical emergency use only. Patients requiring short burst oxygen therapy or long term oxygen therapy for respiratory disease further advice will be obtained from their respiratory specialist.

9. COMMUNICATION, IMPLEMENTATION, MONITORING AND REVIEW

This policy will be communicated to all stakeholders within The State Hospital via the intranet and through the staff bulletin.

The Medicines Committee will be responsible for the implementation and monitoring of this policy and appropriate audits will be scheduled to monitor impact.

The policy will be formally reviewed every 3 years.

10. EQUALITY AND DIVERSITY

The State Hospitals Board (the Board) is committed to valuing and supporting equality and diversity, ensuring patients, carers, volunteers and staff are treated with dignity and respect. Policy development incorporates consideration of the needs of all Protected Characteristic groups in

relation to inclusivity, accessibility, equity of impact and attention to practice which may unintentionally cause prejudice and / or discrimination.

The Board recognises the need to ensure all stakeholders are supported to understand information about how services are delivered. Based on what is proportionate and reasonable, we can provide information/documents in alternative formats and are happy to discuss individual needs in this respect. If information is required in an alternative format, please contact the Person-Centred Improvement Lead on 01555 842072.

Line Managers are responsible for ensuring that staff can undertake their role, adhering to policies and procedures. Specialist advice is available to managers to ensure that reasonable adjustments are in place to enable staff to understand and comply with policies and procedures. The EQIA considers the Protected Characteristic groups and highlights any potential inequalities in relation to the content of this policy.

Patient pre-admission assessment processes and ongoing review of individual care and treatment plans support a tailored approach to meeting the needs of patients who experience barriers to communication (e.g. Dementia, Autism, Intellectual Disability, sensory impairment). Rapid access to interpretation / translation services enables an inclusive approach to engage patients for whom English is not their first language. Admission processes include assessment of physical disability with access to local services to support implementation of reasonable adjustments. Patients are encouraged to disclose their faith / religion / beliefs, highlighting any adapted practice required to support individual need in this respect. The EQIA considers the Protected Characteristic groups and highlights any potential inequalities in relation to the content of this policy.

Carers / Named Persons are encouraged to highlight any barriers to communication, physical disability or anything else, which would prevent them from being meaningfully involved in the patient's care (where the patient has consented) and / or other aspects of the work of the Hospital relevant to their role. The EQIA considers the Protected Characteristic groups and highlights any potential inequalities in relation to the content of this policy".

11. STAKEHOLDER ENGAGEMENT

Key Stakeholders	Consulted (Y/N)
Patients	N
Staff	Y
The Board	Y
Carers	N
Volunteers	N

12. REFERENCES

The work of NHS Lothian Pharmacy Services is gratefully acknowledged.

- NHS Lothian Safe Use of Medicines Policy and Procedures March 2019
- Medicines Act 1968
- Medicines, Ethics and Practice - edit.43 July 2019
- Misuse of Drugs Act 1971 and associated regulations
- Nursing and Midwifery Council (2015) The Code. Professional standards of practice and behaviour for nurses and midwives NMC London
- Professional Guidance on the Safe and Secure Handling of Medicines. Royal Pharmaceutical Society of GB December 2018
- Professional Guidance on the Administration of Medicines in Healthcare Settings. Royal Pharmaceutical Society of GB and Royal College of Nursing, January 2019
- Safer Management of Controlled Drugs, A guide to Good Practice in Secondary Care (Scotland), 2013

- British Standard Specification for cupboards for the storage of medicines in health care premises. BS 2881:1989
- Scottish Executive (2003) Mental Health (Care and Treatment) (Scotland) Act 2003 Stationery Office Edinburgh

APPENDICES

THESE APPENDICES SHOULD BE READ IN CONJUNCTION WITH CP06 THE SAFE USE OF MEDICINES POLICY AND PROCEDURES

Appendix 1

GENERAL INFORMATION FOR PRESCRIBERS

The State Hospital uses Hospital Electronic Prescribing and Medicines Administration (HEPMA). HEPMA LearnPro training should be undertaken and can be referred back to for guidance.

Supplementary Prescription and Administration Charts

A supplementary prescription and administration chart is a chart used to prescribe and record the administration of medicines, instead of, or in addition to, HEPMA. Locally these include charts for insulin and warfarin. These supplementary charts must contain patient's name, ward, DOB, and identification number.

Supplementary charts are used when it is not possible to record the administration instruction and/or record to the required level of detail on HEPMA. The chart must always be prescribed on HEPMA.

The Medicines Committee must approve all supplementary charts.

Medicine Reconciliation

Admission

The aim of medicines reconciliation is to ensure that medicines prescribed when a patient is admitted correspond to those that the patient has been taking and is safe to continue.. Details should include the name of the medicine, dosage, frequency and route of administration. Two information sources must be used.

It is likely this information has been sourced prior to arrival by TSH pharmacy staff liaising with the referring site, where the admission has been planned.

The admitting doctor must use the information to initiate a medicine reconciliation form on RiO under Assessments – Medical. Pharmacy will then review the details and close off the document within 72hrs of admission.

Suspension of Detention

For pre-transfer visits Pharmacy will arrange for stocks of appropriate medicines to be put in place prior to the visit. For other clinical outings or suspensions of detention, medicines may need to be ordered on a pass prescription. Pharmacy must be notified at least three working days prior to leave. Pharmacy will notify medical staff in advance if any prescriptions are required.

Transfers

As well as current medicine information being included in discharge CPA reports Pharmacy also complete a Forensic Network Pharmacy Transfer Checklist for the receiving unit Pharmacy or Prison Health Centre team. Stocks of appropriate medicines will be arranged prior to the transfer. Patients transferring to wards within NHS Lothian should be transferred to the receiving ward on HEPMA by TSH nursing staff.

NB Transcribing information from a prescription and administration record to individually named discharge/prescription requests should not be undertaken by nursing staff

In the event of HEPMA being unavailable for an extended period of time requiring use of paper prescriptions rather than a printed HEPMA Medicines Administration Chart (MAC), the following should be adhered to:

All prescriptions must be written on a recognised prescription and administration record or approved documentation. Prescriptions should be written legibly in ink, preferably black, so as to

be indelible, and the starting date for each medicine should be recorded. Complete all the required patient details including any previous adverse drug reactions (description and date), consent to treatment details and high dose antipsychotic status.

Write the approved (generic) name of the medicine in capitals, and use the brand name for combination products with no generic name or for preparations where response varies between brands, Insulin products and biological medicines (including biosimilars).

Each patient must have only **ONE** prescription sheet unless the first sheet is full then number clearly e.g. 1/2, 2/2. In the event that a patient returns with a second prescription sheet from the GP, then all other current items must be transcribed over by a hospital prescriber at the earliest opportunity.

1. Write drug dose clearly

- Write doses in metric units using the following abbreviations:
  g = gram mg = milligram mL = millilitre
- All other dose units must be written out in full e.g. micrograms.
- UNITS must also be written out in full. When prescribing dose in units e.g. Insulin.
- Quantities less than 1 gram should be written in milligrams e.g. 500 mg, **not** 0.5 g.
- Quantities less than 1mg should be written in micrograms e.g. 100 micrograms **not** 0.1mg.
- Quantities of 1 gram or more should be written as 1g, etc.
- The unnecessary use of decimal points should be avoided, e.g. 3mg, **not** 3.0mg.
- When decimals are unavoidable a zero should be written in front of the decimal point where there is no other figure, e.g. 0.5mL, not .5mL.
- Never prescribe a dose range e.g. 20-30mg.
- Prescribe liquids by writing the dose in mg, except for combination products or where the strength is not expressed in weight e.g. adrenaline 1 in 1000 – write the dose in mL.
- Write strength of medicine where different strengths exist and a particular one is to be prescribed e.g. co-codamol 8/500 mg.
- For Controlled Drugs the strength and formulation should be written e.g. methadone sugar free 1mg/ml oral solution.
- Medicines that deliver a measured application - dose may be abbreviated to 1 appl^{n}

2. Route of Administration

- Enter the route of administration using the following approved abbreviations:

  ORAL must be written in full and **not** abbreviated

IV - intravenous	ID - intradermal	PR - per rectum
IM - intramuscular	SL - sublingual	NG - nasogastric
SC - subcutaneous	INHA - inhaled	TOP - topical

  PEG - percutaneous endoscopic gastrostomy

- Always specify RIGHT or LEFT or BOTH for eye and ear preparations

- For topical preparations always state where on the body to be applied

- Never prescribe oral/IM on the same line: one route per line

3. Frequency

Tick appropriate boxes or use “other times” column to record times of administration. If administration is less than once daily the day or frequency of administration must be specified by the prescriber.

4. Sign the prescription

The prescriber must sign in full against each item prescribed. Do not use initials. Do not bracket items together with one signature.

5. Discontinuing medicines

Do not alter prescribed medicines. Score the medicine off completely and rewrite correct information. To discontinue a medicine, draw a single line through the prescription and clearly date and initial the chart. If the prescriber fails to draw a single line through a discontinued medicine then a suitably qualified nurse may do this at the next administration round.

6. Once only prescriptions

- Write medicine name, dose, method of administration, date of prescription and signature of prescriber as for regular prescriptions.
- Enter a ‘valid to’ date (maximum of 5 days) if the medicine can be administered beyond the same day as the prescription.
- Enter time of administration on appropriate column.
- After administration the “given by” column should be signed by the person who administered the medicine.
- A single line must be drawn through the entry when the valid period has expired even when the medicine has not been administered.

7. As required medicines

- Do not use the abbreviation PRN
- Always include the symptoms to be relieved, the minimum time interval and the maximum daily dose, e.g. PARACETAMOL TABLETS 500mg
  1 gram as required at 4-6 hourly intervals for pain
  no more than 4 grams in 24 hours

8. When HEPMA back online

- Prescriber to score through the paper prescription and administration record to prevent mistaken use, and sign and date it. This includes unused and partially used clozapine escalation charts.

Appendix 2

PROCEDURE FOR TELEPHONED AND EMAILED PRESCRIPTIONS FROM MEDICAL PERSONNEL

This procedure should only be used in the event that HEPMA is unavailable and the Disaster Recovery Protocol is being followed.
In the absence of resident medical staff, it is necessary to plan for the possibility of a patient's condition requiring medicine to be prescribed and administered without a doctor being on site to review and able to use any authorised prescription before the medicine is given.

Although a verbal order for a prescription is not acceptable on its own (NMC Standards for Medicines Management) **current practice allows telephone prescribing provided it is followed by a confirmation email via nhs.scot**. Senior Clinical Cover should be informed prior to any request.

1. Procedure

This procedure may be permitted only if:

1) The patient's condition warrants immediate administration of the agreed medicine in terms of Section 243 in Part 16 of the Mental Health (Care and Treatment) (Scotland) Act 2003. In such an eventuality medication would be given in the expectation that medical staff review the patient at the first appropriate opportunity as agreed with nursing staff in attendance; and that the Medicines Administration Chart (MAC) be signed by appropriate medical staff on the next working day.

OR

2) In other clinical circumstances such as the development of disturbing extra pyramidal side effects, the appropriate medication may be prescribed over the telephone at the discretion of nursing and State Hospital medical staff, in all cases with the same expectations as described in (1).

OR

3) In the case of a non-psychiatric medical consultation via NHS 24.

OR

4) It is impossible for the doctor to visit the patient due to hazardous driving conditions.

This procedure is not acceptable for the prescription of schedule 2 or 3 controlled drugs.

Two registered nurses are required for the administration of medicines following a telephoned/emailed prescription. Registered nurses may not carry out this procedure with a student nurse.

2. Prescribing/Verbal and Email Instruction

The more senior nurse responsible for the patient must take responsibility for receiving the telephoned and emailed prescription. The following procedure must be followed by the senior nurse:

- Acquaint the doctor with the patient's details, including any known sensitivities and the names and doses of all currently prescribed medicine.

- If the doctor does not have access to the E-mail Confirmation of Telephoned Prescribing Information form, (Appendix 2a) it should be attached and sent to the doctor on their nhs.scot account.
- The form should be completed by the doctor and emailed to the senior nurse. This is confirmation of the medicine being prescribed.
- The completed form should be printed off and then attached to the patients existing MAC. A second registered nurse can confirm details of the new prescription with the doctor.
- The senior nurse should write the details of the prescribed item(s) onto the MAC in the appropriate section (e.g. regular; once only). The second nurse should check all details on the MAC with the Telephoned Prescribing Information form. Only then can the medication be administered to the patient.
- The doctor should attend the ward (within 72 hours) to sign the MAC and the Urgent Medicine Request form.
- The senior nurse should notify the Pharmacy department of urgent medicine request.
- The patient Urgent Medicine Request form should be sent to medical records to be scanned onto RiO.

The Registered Nurse still retains the right to refuse to take a verbal message to administer a medicinal product if the nurse believes the patient needs to be seen by a medical practitioner.

3. Selecting and preparing

The two registered nurses must be involved in selecting and preparing the medicine for once only medicines and the first dose of regular prescriptions.

4. Administering

The two registered nurses involved must be present when the once only medicine or first dose of a regular prescription is administered.

5. Recording

After the medicine has been administered, both registered nurses present must sign or clearly initial the appropriate recording box on the appropriate section.

Appendix 2a

E-MAIL CONFIRMATION OF TELEPHONED PRESCRIBING INFORMATION

Ward:

Date:

Time:

Doctor's name:

Name of registered nurse Doctor spoke to on phone:

Patient Name:

D.O.B:

Date to be commenced:

Medication:

Dose:

Route and Times to be administered:

Allergies and drug interactions checked:

Additional information:

Out of hours medication transferred to prescription

This section to be completed when Doctor attends ward:
(Attends within 24hours or maximum 72hours after telephone call)

Name (print):

Signature:

Date:

Time:

Please print page and attach to prescription sheet until Doctor attends ward to sign.

When completed, page should be sent to medical records for scanning to RiO

Appendix 3

CLOZAPINE

Clozapine is an antipsychotic medication licensed for treatment resistant schizophrenia. Patients on clozapine require regular mandatory Full Blood Count monitoring. It is therefore classified as a high risk medicine and under no circumstances must it be given:

- to a patient not prescribed it or those not registered with a clozapine patient monitoring service.
- to patients prescribed clozapine without a validated blood result.

Given the long stay and close supervision environment of the hospital clozapine is now supplied to the wards as stock supplies and not individually named patient items.

1. Registration of new patients

All new start patients must be co-ordinated through Pharmacy. Prior to commencing clozapine all patients must register with a clozapine monitoring source and have a current 'green' full blood count (FBC) result. A unique ID number will be allocated by the clozapine monitoring service.

2. Clozapine Clinic

The State Hospital clozapine clinic is held on Tuesday each week at the Health Centre. In addition to mandatory FBC samples, additional bloods requested, plasma levels, physical monitoring and counselling takes place, in line with national monitoring standards.

All FBC samples are analysed locally (at Wishaw General Hospital) and input to the clozapine monitoring service database by registered pharmacy staff.

3. Frequency of mandatory routine FBC tests

- First 18 weeks — weekly
- 19 - 51 weeks — fortnightly
- 52 weeks onwards — every 4 weeks

FBC results are available on-line to Pharmacy plus the RMO.

4. Amber/Red results

If blood results fall into the 'amber' range, clozapine can continue to be administered, but FBC sampling will be twice weekly until problem resolves.

Blood results in the confirmed 'red' range require clozapine to be discontinued immediately. Daily FBC are required until levels return to 'green' status.

5. Clozapine supplies

Clozapine is supplied to the wards in stock boxes and not individually named patient boxes. This was implemented following a robust risk assessment and introduction of a close monitoring and reporting procedure overseen by Pharmacy.

6. Clozapine blood monitoring schedule

This is updated by pharmacy and circulated to the Health Centre for clozapine clinic scheduling.

7. Confirmation of validated blood results

Pharmacy have a local procedure in place to check the FBC results (green, amber or red) of those

patients scheduled in for blood monitoring each week. Any urgent actions will be telephoned through to the ward, Health Centre and prescriber as appropriate. In addition, these will be recorded in the electronic patient record on RiO. Routine 'green' result notifications will also be added to patient progress notes to inform all clinical staff that treatment is safe to continue.

Alerts of any nature e.g. amber or red results are sent to the RMO.

8. Clozapine Plasma Levels

Clozapine plasma levels are normally scheduled when next FBC sample due. Pharmacy will notify the ward to ensure morning dose of clozapine is withheld. All relevant paperwork is completed by clozapine clinic staff. If a clozapine plasma level is required more urgently then this can be arranged in liaison with Health Centre staff.

Results usually processed within 1 week to allow review and dosage adjustment if required.

Target trough clozapine level for therapeutic effect >0.35mg/L
Side effects more likely - >0.50mg/L

Clozapine plasma levels require to be monitored closely for a few months after smoking cessation.

9. Dose changes

The prescriber or ward should inform Pharmacy of any dose changes.

10. Planned Hospital visits/leave

Notify Pharmacy of any dates which coincide with clozapine clinic visits plus any requirement for a named pass medication supply.

11. Unplanned/Urgent transfers

Pre-packs of clozapine are available in the Emergency Drug Cupboard in the Health Centre that can be labelled for individual patients already established on clozapine whilst they are temporarily boarding out. These will be provided by Pharmacy (Mon-Fri) or Senior Clinical Cover at weekends. A form detailing the procedure is available on the intranet under 'on-line forms' plus is saved in the Senior Clinical Cover shared document file.

12. Discontinuation of Clozapine

Pharmacy will inform the clozapine monitoring service. FBC monitoring is required for 4 weeks following discontinuation, at the same frequency as required whilst last on clozapine.

13. Unlicensed Intra-muscular (IM) Clozapine

The State Hospital has local guidance on the use of unlicensed IM clozapine available on the intranet (under Policies/Clinical/Medicines).

Appendix 4

PROCEDURE FOR ORDERING, STORAGE AND ADMINISTRATION OF RECORDED DRUGS

1. Scope

The term “Recorded Drug” apply to medicines that are classified as schedule 3 (CD No Reg POM), schedule 4 (CD Benz POM or CD Anab POM) or schedule 5 (CD Inv POM or P) according to the Misuse of drugs (safe custody) Regulations 1973 and The Misuse of drugs Regulations 2001.

Schedule 3 require to be ordered using a controlled drug (CD) order book, stored in the controlled drug cupboard but DO NOT need to be written in the controlled drug register. (Drugs include barbiturates, buprenorphine, gabapentin, midazolam, pregabalin, temazepam, tramadol). There are exceptions to the safe custody requirement for gabapentin, midazolam, tramadol, phenobarbital and pregabalin (don’t need to be kept in CD cupboard).

Schedule 4 (part 1 & 2) do not require to be ordered using CD order book, do not require to be stored in a CD cupboard or recorded in a CD register. Part 1 covers benzodiazepines (except above schedule 3: temazepam & midazolam), non-benzodiazepine hypnotics (e.g. zaleplon, zolpidem, zopiclone). Part 2 covers Androgenic and anabolic steroids.

Schedule 5 do not require any CD controls. These are controlled drugs at low strength and include codeine (e.g. co-codamol, co-dydramol), pholcodine and morphine (e.g. oramorph 10mg/5ml solution).

Due to the potential for misuse of these medicines the hospital requires them to be closely monitored and will treat them all as Recorded Drugs.

Please check with the pharmacy department about classification of medicines.

2. Ordering and receipt of Medication

a) The pharmacy technician will order Recorded Drugs as part of the weekly ward top-up. For Schedule 3 medicines, a controlled drug order form requires to be completed by a registered nurse for supplies to the ward. This will be requested by the pharmacy technician.
b) A registered nurse will receive the medication and enter the quantity supplied into the Recorded Drugs documentation. If a Schedule 3 medicine the qualified nurse must sign controlled drug order book as being received and the quantity added to Recorded drug documentation with a note of the CD order book reference number.
c) If a pass or discharge prescription is required for a Schedule 3 medicine this will need to meet the full controlled drug prescription requirements.

3. Administration of Recorded Drugs

Each ward will have a folder containing Recorded Drug Reconciliation Forms.
Each individual preparation will have a separate form.

a) An administration record of all doses of Recorded Drugs must be kept. This will include date, time, patient initials, details of dose issued and stock balance.
b) The registered nurse administering each dose of medication will be required to complete the Recorded Drugs documentation in addition to charting the medicines as given on HEPMA - administration and recorded drug documentation should be witnessed and signed by a second registered nurse.
c) All ‘dropped’ and discarded doses must also be recorded on the Recorded Drugs Reconciliation Form by two registered nurses. The medication should be written out of the recorded drug documentation and all details entered into a page of the Pharmacy Returns book, prior to the medication being put into the pharmaceutical waste bin.

d) Recorded Drugs Reconciliation Forms must be kept for a minimum of 2 years.

4. Daily Ward Totals

Stocks should be checked for accuracy using Appendix 4a at each shift handover and signed for by two registered nurses.

NB: Any patient who is prescribed a Recorded Drug (regular or as required) no longer being used should have the medication reviewed and the item discontinued on HEPMA if appropriate following medical review.

5. Returns

Any Recorded Drug not being utilised will be identified from the running total documentation at the weekly pharmacy top-up and/or an alert from nursing staff and returned as soon as practically possible.

a) The pharmacy technician will return any Recorded Drug not required via the procedure as outlined in Appendix 8.
b) A registered nurse will check and count the medicine then countersign the returns book along with the pharmacy technician.
c) The pharmacy technician and nurse will also ensure the returns are deducted and signed out of the Recorded Drugs Reconciliation Form.
d) The returning medicine along with a copy of the returns book indent will be returned to TSH pharmacy department. The medicine will then be added to the pharmacy department recorded drug documentation.
e) Any expired Schedule 3 medication will require to be destroyed as per Appendix 5.

6. Transfer Stock between wards

Recorded Drugs which are:

- Schedule 4 and 5 Controlled Drugs as described above can be transferred between wards under normal transfer procedures providing both the recorded drug documentation and a transfer form are completed.
- Schedule 3 Controlled Drugs may be transferred between wards by Pharmacy staff as detailed in Appendix 5. Nursing staff must not transfer these stocks except when as individual dose is required for administration in extreme circumstances as in Appendix 5.

7. Discrepancies of Recorded Drugs

a) Shortfalls of liquid preparations e.g. diazepam, oramorph:
Two registered nurses can reset the totals on the Recorded Drugs Reconciliation Form (one of them being the nurse in charge of the ward) It is the responsibility of Senior Charge Nurses to monitor the level of these shortfalls and discuss > 10% bottle loss with a pharmacist. Pharmacy staff will incorporate a Recorded Drugs check into their controlled drug checks which will act as a secondary check.

b) Any other discrepancies in stocks should be reported immediately to the Director of Nursing and Operations, Senior Clinical Cover and the Lead Pharmacist. A DATIX medication incident should be completed as per protocol.

8. Suspected diversion of Recorded Drugs

Any suspected diversion of medication should be recorded on DATIX and reported to security manager, the Lead Pharmacist and the Controlled Drug Accountable Officer.

Appendix 4a

RECORDED DRUG RECONCILIATION FORM

Medication (name, strength and form)……

Use a separate sheet for each preparation

Date	Time	Patient Initials	Amount Issued	Amount Received	New Total	Checked by (Print and sign)	Witnessed by (Print and sign)	Comments

Appendix 5

PROCEDURES FOR ORDERING, STORAGE AND ADMINISTRATION OF CONTROLLED DRUGS

Summary of Requirements for Common Schedule 2 and Schedule 3 Controlled Drugs (CDs).

Please refer to the table below in the reading of this appendix. Appendix 5 is primarily referring to Schedule 2 CDs however ordering and storage does apply to some Schedule 3 CDs.

Drug (All forms unless specified)	CD Schedule	Order in CD Order Book	Store in CD Cabinet	CD Register or Recorded Drug Entry
Methadone	**2**	**Yes**	**Yes**	**CD**
Methylphenidate	**2**	**Yes**	**Yes**	**CD**
Morphine Tablets/Injection	**2**	**Yes**	**Yes**	**CD**
Oxycodone	**2**	**Yes**	**Yes**	**CD**
Gabapentin	**3**	**Yes**	**No**	**Recorded**
Midazolam	**3**	**Yes**	**No**	**Recorded**
Pregabalin	**3**	**Yes**	**No**	**Recorded**
Temazepam	**3**	**Yes**	**Yes**	**Recorded**
Tramadol	**3**	**Yes**	**No**	**Recorded**

1. Accountability

The nurse in charge of a ward or department is responsible for the safe and appropriate management of controlled drugs in that area. While they can delegate control of access (i.e. key holding) legal responsibility remains with the registered nurse in charge.

The Accountable Officer remains finally accountable for systems for the safe management and use of controlled drugs within the hospital.

2. Requisitioning of controlled drugs and security of stationery

The nurse in charge of the ward is responsible for requisitioning of controlled drugs via a controlled drug requisition book with duplicate pages, although they can delegate the task of preparing a requisition to another registered nurse. A list of current authorised personnel and their signatures is held at the Pharmacy in NHS Lothian supplying controlled drugs.

Authorised staff must be trained and competent in the processes involved in ordering controlled drugs. All required information must be written clearly on the requisition including **printing their name and signing**.

Orders must also contain the following:

- Name of hospital
- Ward
- Drug name, form, strength, pack size if more than one available
- Total Quantity
- Date

On occasions, it may be necessary for registered pharmacy staff to alter the quantity, strength or formulation supplied. Where this happens, the change must be altered, signed and dated by the registered member of pharmacy staff on both copies of the requisition.

The person who accepts controlled drugs for transit/delivery from the pharmacy must sign for receipt. This will be on separate documentation kept for this purpose.

Access to ordering stationery must be restricted to those authorised to order controlled drugs.

Only one Controlled Drug Order book should be held on a ward at any time, except when otherwise agreed locally to meet exceptional circumstances.

Controlled Drug registers that are being replaced should have part-used pages ruled off.

Loss or theft of any controlled stationery (e.g. order book or Controlled Drug Register) must be reported immediately to the nurse in charge who is responsible for investigating and reporting the incident in accordance with the policy for incidents. The Accountable Officer must be informed.

Controlled Drug Registers and Controlled Drug Order Books must be retained securely for two years from date of last entry, or for seven years if the register contains destructions.

For non-urgent supplies, the CD order book can be sent with the regular pharmacy order on a Friday, returning on Tuesday. For urgent out of hours supplies Senior Clinical Cover must contact the on-call Pharmacist via St John's Hospital switchboard. The CD Order Book must be kept secure whilst awaiting collection or in transit between the ward and Pharmacy.

3. Receipt of controlled drugs

A registered nurse must sign for the sealed controlled drug package on the porter's delivery note from NHS Lothian.

The sealed package must then be handed to the nurse in charge or delegated nurse to check the contents with a witness. Both must sign and date the consignment note and the 'received by' pages in the controlled drugs order book. The consignment note must be returned to NHS Lothian via the pharmacy box.

If a discrepancy is found it must be reported to Pharmacy immediately.

The nurse in charge or delegated registered nurse is responsible for ensuring that all controlled drugs are placed in the controlled drug cupboard immediately following the check on receipt. On no account should they be left unattended.

Receipt of controlled drugs must be recorded in the Controlled Drugs Register including the Pharmacy serial number (SN) on the package. A separate page must be dedicated to each individual product (that is, every different strength and form of a preparation requires a separate page), and all transactions recorded on that page. When the page is full, required information must be carried over to a new page. The index at the front of the register must be used to indicate the current page in use for each product.

Two registered nurses must sign the register on receipt of controlled drugs. Both are responsible for checking that each required detail is entered correctly, and that the controlled drugs are immediately placed in the controlled drugs cupboard.

For controlled drugs received, the following details must be recorded on the appropriate page in the Controlled Drug Register:

- Date of entry
- The serial number of requisition
- Quantity received
- Form (name, formulation and strength) in which received
- Name/signature of nurse/authorised person making entry

- Name/signature of witness
- Balance in stock

4. Storage of controlled drugs

All controlled drugs must be stored in an approved cupboard used exclusively for this purpose and protected by two locks, both of which must be secured when not in use

The Misuse of Drugs (Safe Custody) Regulations 1973 cover the safe custody of controlled drugs in certain specified premises. The Regulations also set out certain standards for safes and cabinets used to store controlled drugs.

Ward controlled drug cupboards should conform to the British Standard reference BS2881 or be otherwise approved by the pharmacy department. This is a minimum security standard.

All controlled drugs must be stored in a locked receptacle, which can only be opened, by a person who can lawfully be in possession, such as a pharmacist or the registered nurse or a person working under their authority.

General measures for the storage of controlled drugs include the following:
- Cupboards must be kept locked when not in use
- The lock must not be common to any other lock in the hospital
- Keys must only be available to authorised members of staff and at any time the key-holder must be readily identifiable
- The cupboard should be dedicated to the storage of controlled drugs
- No other medicines or items should normally be stored in the controlled drug cupboard.
- Controlled drugs must be locked away when not in use

The nurse in charge must ensure that procedures are in place so that only authorised persons have access to controlled drugs

The nurse in charge is responsible for the safekeeping of, and for controlling access to, all medicines stored in his or her area of control. The nurse in charge must normally hold the keys for the cupboards. In circumstances where holding the keys personally would cause delays or difficulties in making medicines available, key holding may be delegated to other suitably trained registered healthcare professionals. The responsibility remains with the nurse in charge.

The keys for controlled drugs cupboards must be kept separate from other keys and only given to other approved staff when access to controlled drugs is required.

The key may be given to a member of the pharmacy staff for the purposes of stock checking. On completion of stock checking the key must be immediately returned to the nurse in charge or key-holder as appropriate.

If the ward is not carrying a stock of controlled drugs then the key will be kept in the ward safe.

5. Record Keeping

Each ward holding controlled drugs must keep a record of CDs received and administered in a controlled drug register.

The nurse in charge is responsible for keeping this up to date and in good order.

The controlled drug register has separate pages for each drug, each form and each strength, so that a running balance can be kept easily. Entries will be made in ink in chronological order.

On reaching the end of a page, the balance is transferred to another page. The new page number

will be added to the bottom of the finished page and the index at the front of the register updated.

If a mistake is made it will be bracketed, signed and dated. It will also be witnessed and signed.

After administration, the stock balance will be confirmed and the specific time must be recorded in the controlled drug register and both staff present at administration must sign the controlled drug register and the medicine recording sheet. In instances where not all of the controlled drug is required/administered, the actual dose administered and any quantity, which is discarded/destroyed, must be witnessed and recorded in the register.

It is a statutory requirement that pharmacy carries out a controlled drug check every four months in each ward that hold controlled drugs. A local department standard operating procedure is in place for this check. Any discrepancies found must be reported in an incident report.

6. Ward Stock Checks

6.1 Controlled Drug balance checks

All controlled drug balances must be checked by two registered nurses against the recorded stock at each shift handover while in use. Record as 'check of stock level' alongside date and time. The nurse in charge is responsible for ensuring this is carried out.

Systematically look at each page of the register and then count or measure the physical stock. It is not necessary to open packs with intact tamper-evident seals.

Stock balances of liquid medicines will be checked by visual inspection at each shift handover, with a weekly volume check (see Appendix 5a). A rebalance check can be requested from Pharmacy if necessary.

If a member of staff becomes aware of a controlled drug discrepancy, he/she must ensure that it is reported and investigated immediately as follows:

- Check arithmetic since last correct balance
- Check all controlled drug stocks with a second registered healthcare professional (include date expired stock, dispensed medicines not yet collected and exclude patient returns)
- Check other register sections of same drug class for erroneous entries
- Sense-check register (correct pack sizes, patterns of entry for potential missing entries, and unusual quantities)
- Check orders have all been entered by checking delivery notes / invoices / stock orders for discrepancies
- Check diary and contact all members of staff who have worked in the clinical area during the relevant period to verify any supplies made that have not been entered

If the discrepancy can be resolved at any of the above steps, a bracket must be placed around the wrong entry, initialled and a dated footnote in the Controlled Drug Register must be made to reflect the correction.

If a discrepancy is found that cannot be resolved it must be reported on DATIX and investigated as soon as possible. The Lead Pharmacist and Accountable Officer must be informed and will contact the following if appropriate:

- The State Hospital Fraud Liaison Officer
- Strathclyde Police (SPOC)
- Counter Fraud Service

6.2 Exception for Medical Emergency Supplies

Midazolam Oromucosal Solution 10mg/ml Pre-Filled Syringe (Epistatus®) for Use in off ward areas under an Individual Seizure Treatment Plan.

In order to facilitate patients who are at risk of seizures attending off ward activities a supply of midazolam for buccal administration will be made available and stored within a locked medicines cupboard in each area visited. This is in case it is required for emergency use for status epilepticus, as part of a patient's epilepsy management plan. The keys for the locked cupboard will be restricted to staff within the cupboard location.

This is to keep within controlled drug transfer legislation and to negate the risk to staff of transporting a schedule 3 controlled drug regularly around site with the patient.

The lead for each area will ensure appropriate administration training is given to all nursing staff, collaborating with appropriate ward nursing staff, prior to the patient accessing the area.

In off ward areas, two registered nurses are not always available to administer and witness emergency treatment to patients suffering a seizure who have an Individual Seizure Treatment Plan. To ensure timely access to this emergency treatment the medication may be checked, administered and documented by one registered nurse (in terms of NMC regulations and Duty of Care) and witnessed by a second member of staff (non-registered nursing staff).

This medication will be administered as part of a patient's individual seizure management plan via the directions on their prescription sheet. Recording of any administrations will be made on the Administration Recording Sheet. Both the prescription sheet and administration sheet will have to accompany the patient to the off ward area on each occasion.

Given that midazolam is a schedule 3 controlled drug, it falls within The State Hospital Recorded Drugs Procedure. For off ward areas it has been agreed (by the Medicines Committee and Controlled Drugs Accountable Officer) that daily checks need only be carried out only during the area working hours. Stocks must be checked for accuracy using the Recorded Drug Documentation form (appendix 4a of Safe Use of Medicines Policy) morning and evening, signed by 2 members of staff (one of which must be a registered nurse). The registered nurse is responsible for checking the total number, expiry date and integrity of the tamper proof seal of each single dose pre filled midazolam oral syringe.

If there is no registered nurse on duty within the department, staff will locate a registered nurse to complete the twice daily checks with them. This deviates from current Safe Use of Medicines policy, however is in keeping with current practice by senior nurses who carry out routine checks on the sealed Emergency Drug bags.

Pharmacy will be responsible for facilitating supplies to off ward areas via a controlled drug order book (ordered via Health Centre CD order book). This is to keep within controlled drug transfer legislation and to negate the risk to staff of transporting a schedule 3 controlled drug regularly around site with the patient.

7. Action in the event of a breach of security involving controlled drugs

Theft of controlled drugs is a serious criminal offence under the Humans Medicines Regulations 2012, the Misuse of Drugs Act 1971 and other legislation and will be dealt with accordingly by the NHS Board Accountable Officer, professional and regulatory bodies and the police.

A breach of security includes any deviation from the procedures that causes actual or potential loss or theft of medicines. Examples of such incidents include:

- Controlled drugs are found to be missing
- Controlled stationery is found to be missing
- A key for controlled drug cupboards areas is found to be missing
- Controlled drugs belonging to ward / department stock are found to be missing
- An unauthorised person has access to controlled drugs or controlled drug stationery

Any person who discovers a breach of security is responsible for reporting it immediately to the nurse in charge or line manager. All concerns will be treated in the strictest confidence regardless of whether the subsequent review substantiates these concerns. All investigations must be carried out in a discrete manner.

All breaches of security that cause actual or potential loss or theft of controlled drugs must be investigated and the appropriate corrective and preventive action taken. If medicines have been misappropriated police charges may be brought.

The nurse in charge must take reasonable steps to ensure that controlled drugs are in fact missing, for example check administration records; cupboards not normally used for storage of controlled drugs and pharmacy delivery records.

If the nurse in charge is unable to satisfy him/herself that all medicines can be accounted for, they must report suspicions to the relevant manager immediately.

Where a manager has been informed of suspected or actual theft of medicines, he/she must inform relevant professional leads including the Lead Pharmacist. The Accountable Officer must be informed of any incident relating to controlled drugs.

The incident policy should be followed in all cases of suspected or actual theft of medicines.

Should the result of the preliminary review identify any evidence of actual theft, the police should be contacted immediately. Any evidence should be retained pending police investigation.

Staff should be familiar with and refer to the local Fraud Policy in all cases of suspected or actual theft of medicines.

8. Prescribing

Within The State Hospital controlled drugs must be prescribed on HEPMA, or pass/discharge prescriptions

Further information on prescribing is contained in the current British National Formulary and is also available by contacting the Pharmacy Department.

9. Administration

The nurse in charge must ensure that records of administration of controlled drugs are properly maintained, and that stocks are reconciled.

Two registered healthcare professionals (nurses/doctors) are required to carry out the procedure for the administration of prescribed controlled drugs (with the exception of midazolam for seizures as per section 6.2 where a second non-registered member of nursing staff can witness).

Persons who witness administration are responsible for observing that administration has taken place and recording as such on HEPMA.

A record of administration must be made in the ward or department Controlled Drug Register as follows under the appropriate Form (name, formulation and strength):

- Date and time of administration
- Patient's full name
- Dose administered or discarded if appropriate
- Full signatures of both practitioners
- Check of remaining stock balance

The two persons involved in the procedure must be present at the time of administration, or at the

set up and start of administration for injections that are administered over a period longer than a few minutes.

Any controlled drug prepared and not used or only partly used must be destroyed in the presence of the second person. An entry must be made in the Controlled Drug register and signed by both parties.

The registered nurse and witness must reconcile the stock balance at each administration by counting or measuring the physical stock and checking it against the register.

Only then, should the medicine be administered and recorded on HEPMA.

The patient should be told the name and dose of any controlled drug before administration.

NB: Both registered healthcare professionals must witness the full procedure – NOT merely check the remaining stock

Any discrepancies must be reported to the nurse in charge immediately, and investigated following the procedure 'Dealing with discrepancies in controlled drugs'.

10. Moving Controlled Drugs between wards

Due to Controlled Drug legislation, nursing staff cannot transfer controlled drugs between wards, as this would be seen as a 'supply', which is not permitted.

In extreme circumstances however individual controlled drug doses may be moved between wards to allow administration when the pharmacy is closed, and following consultation with the Senior Charge Nurse for that area, or Senior Clinical Cover in their absence. Stock holdings must not be transferred between registers.

When the dose is due a registered nurse from the ward requiring the dose must take the individual patients Medication Administration Profile (MAP) and Medicines Administration Chart (MAC) to the ward with the controlled drugs in stock. The nurse in charge of the ward with the controlled drugs should then check the MAP and MAC and a transfer form completed clearly stating the issuing and receiving wards and signed by the nurses issuing and receiving the dose.

A registered nurse from the ward with the controlled drugs along with the nurse from the ward requiring the dose puts the controlled drugs stock (box or bottle) in a pharmacy transit bag (available next to the Hub Medical Emergency Drugs) along with the Controlled Drug Register and transports the bag to the requiring ward.

Two registered nurses must complete the procedure for administration of controlled drugs. The register of the ward from which the dose is being transferred is used to record administration details. The remaining stock and register then needs to be returned to the original ward by two staff.

11. Transfer of Controlled Drugs between wards by Pharmacy

This procedure relates to solid dose formulations (full or part packs) or full bottles of security sealed liquid preparations only.

Schedule 2 or 3 controlled drugs can be transferred between wards on site by registered pharmacy staff when:

- A ward requires an urgent supply of a controlled drug when another ward has an excess supply available
- A ward no longer requires the controlled drug and another ward can utilise the supply

Ordering	The ward to receive the controlled drugs must complete an order, signed by the Nurse in Charge or delegated Nurse, in the ward Controlled Drugs Order Book as per section 2 above and give to pharmacy.
Supply	A member of registered pharmacy staff with the Nurse in Charge or delegated Nurse of the ward holding the stock will issue the required stock out of the holding wards CD Register/recorded drug documentation into the TSH Pharmacy Controlled Drug Transfer Register. The serial number on the original CD sticker will be logged in both entries. The member of registered pharmacy staff will then transfer the CDs along with the TSH Pharmacy Controlled Drug Transfer Register to the receiving ward.
Receipt	On the receiving ward the member of registered pharmacy staff, witnessed by the Nurse in Charge or delegated nurse will issue out the CDs from the TSH Pharmacy Controlled Drug Register. They will then receive onto the CD register/recorded drug documentation as appropriate, per section 3 above, including the new order serial number which will be over labelled on the CD with a new sticker.
Records	The top white copy of the controlled drugs order will be retained in a folder in pharmacy alongside the TSH Pharmacy Controlled Drug Register.

12. Disposal of controlled drugs on wards

Small individual doses of controlled drugs, which are prepared but not administered, or those partially used shall be destroyed on the ward in the presence of a second person who will be a registered member of pharmacy staff, registered nurse or doctor. These can be disposed of down the sink with copious amounts of water. This includes the contents of any ampoules broken during stock checking.

Out of date controlled drugs, or those no longer required will be destroyed on the ward by a registered member of pharmacy staff using a denaturing kit in the presence of a person authorised to do so by the Accountable Officer. At The State Hospital, this is a Charge Nurse, Senior Charge Nurse or Lead Nurse.

The identity and quantity of controlled drugs for destruction must be checked against the balance in the Controlled Drug Register.

The reason for destruction must be confirmed.

Instructions for use on the denaturing kit label must be followed.

Complete the label on the denaturing kit e.g. date, time, serial number of item and also write on the lid in permanent marker ‘for pharmaceutical waste destruction’.

Enter the following in the Controlled Drug Register: date, quantity denatured, destroyed on ward, reason, page transferred to, signature of registered pharmacy staff, signature of authorised nurse witnessing denaturing, new balance.

Write the filled denaturing kit into the Controlled Drug register on an allocated page …e.g. 01/09/18 – Denaturing kit containing serial numbers …. Filled at 1500hrs. A Pharmacist/Pharmacy Technician (signature). A Nurse (signature). Balance – 1 kit.

Advise the nurse in charge on the ward to store the denaturing kit in the controlled drugs cupboard for 24hrs. It can then be sent back to Pharmacy using a pink returns slip and written out of the

Controlled Drug Register e.g. 02/09/18 Denaturing kit containing serial number….. Sent to Pharmacy at 14.00hrs. A Nurse (signature). B Nurse (signature). Balance NIL.

13. Movement of controlled drugs within and outside the hospital

All controlled drugs are supplied from Pharmacy Services, NHS Lothian. A driver signs for collection of a sealed package at the supplying Pharmacy. On delivery to the ward the nurse in charge and a registered healthcare professional witness signs a receipt for return to the supplying Pharmacy as well as the 'received by' section in controlled drug requisition book.

14. Dealing with suspicious substances found in the hospital

Please refer to local policy SP09 Search Policy and Procedure located on the intranet.

Appendix 5a

CONTROLLED DRUGS: CHECKING LIQUID PREPARATION BALANCES

Liquid preparations of controlled drugs should not be physically measured at each shift handover. Instead, a visual estimation should be carried out.

Registered nursing staff should measure the volume of open bottles on a weekly basis. It should be assumed that sealed bottles contain the amount stated on the label with no need to open and measure until the point of use.

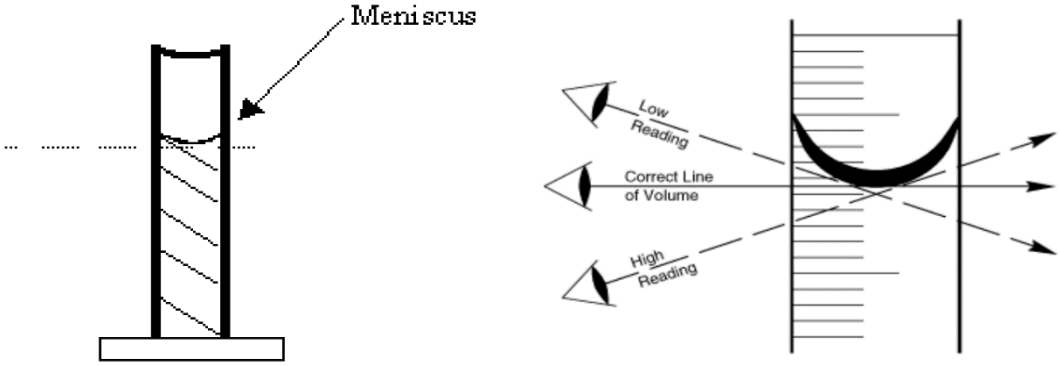
Weekly checks should be undertaken during pharmacy opening hours to ensure a timely response if a problem is encountered.

Measuring

When measuring liquid controlled drug preparations, ensure consistency by:

- Using a suitable conical glass cylinder for precise measuring (plastic medicine cups are not appropriate for accurately measuring controlled drugs)
- Placing the measure on a flat hard surface
- Ensuring sight line at the same height as the bottom of the meniscus

The bottom of the meniscus is the accurate measurement:



After measuring, use a prolonged drainage period until there are no further drops (around 3 seconds).

Discrepancies

Discrepancies in liquid volumes may arise due to manufacturer overage or underage,

For most oral liquids, e.g. methadone, each sealed bottle may contain between 95 and 105ml in each 100ml bottle i.e. +/- 5%.

For oxycodone, this is reported to be +/-10% i.e. between 225ml and 275ml in each 250ml bottle.

Discrepancies may arise due to small losses when measuring small volumes frequently. It is inevitable that some liquid will be lost each time an amount is measured out, especially if the liquid is viscous and is not allowed to drain thoroughly from the measure.

Discrepancies can also occur if incorrect bungs and syringes are used. When administering an oral liquid dose, the bottle must be fitted with an appropriate sized bung and oral syringe suitable to the

dose required.

If a discrepancy is suspected on visual inspection, registered nursing staff should undertake a physical measurement out with the weekly check.

If discrepancy found

A shortage is usually due to a miscalculation: check back to the last time a controlled drug balance reconciliation was carried out to ensure that each arithmetic calculation is correct and the reason for a discrepancy is not a miscalculation. Crosscheck with the HEPMA Medicines Administration Chart (MAC).

Discrepancies of less than 5% (or 10% with oxycodone) over the total amount of liquid controlled drug received since the last reconciliation can be corrected by two registered nurses (with one being the nurse in charge).

The controlled drug register should be annotated: *Weekly balance check: balance found to be XXml, register adjusted accordingly.*

May be helpful to annotate the register entry in a different colour of ink from routine entries to distinguish it clearly.

Any shortage not due to spillage or miscalculation or discrepancies greater than 5% (or 10% with oxycodone) must be reported on DATIX and investigated as soon as possible.

The Lead Pharmacist and Accountable Officer must be informed and will contact the following if appropriate:

- The State Hospital Fraud Liaison Officer
- Strathclyde Police (SPOC)
- Counter Fraud Service

Appendix 6

PROCEDURE FOR OBTAINING A MEDICINE WHEN THE PHARMACY IS CLOSED

1. Transfer of Medicines when the Pharmacy is closed

It is recognised that the term "borrowing" is often used when in fact medicines are transferred from one ward to another and are not replaced by the receiving ward.

An emergency stock of medicines is located within the Health Centre for use when medicine prescribed for a patient is not present at ward level and cannot be obtained via pharmacy. When this occurs, medicines can be withdrawn **firstly** from the Emergency Drug Cupboard or, failing this, from another ward.

A list of medicines held in the Emergency Drug Cupboard is available on the intranet under Departments - Pharmacy.

2. Withdrawal of Medicines from the Emergency Drug Cupboard

- The nurse in charge must notify the Senior Clinical Cover on site that he/she requires a specific medicine from emergency stock.
- Senior Clinical Cover on site will collect the Emergency Drug Cupboard keys from the Security Department.
- Senior Clinical Cover will access the Emergency Drug Cupboard in the Health Centre and select the specific medicine.
- Documentation will be completed by the Senior Clinical Cover. The Urgent Medicine Request Form (Appendix 6a) and the Urgent Ward Supply List (Appendix 6b) are located in the Emergency Drug Cupboard.
- The requested medicine should be placed in a pharmacy bag, sealed with a staple and the Urgent Medicine Request Form attached.
- Emergency Drug Cupboard keys must be returned to the Security Department.
- The medicine should be transported to the requesting ward where the nurse in charge will receive the medicine after consulting HEPMA for clarification.
- **The medicine must be signed for on delivery to the ward and the Urgent Medicine Request Form returned to pharmacy as soon as possible.**
- Pharmacy staff will also observe this protocol.
- Pharmacy staff will be responsible for replacement of medicines to the Emergency Cupboard stock.
- If the required medicine is not available from the Emergency Drug Cupboard, follow 'Obtaining a Medicine from another Ward' (below) and record reason for non-availability through Senior Cover folder.

3. Obtaining a Medicine from another Ward

- The nurse in charge will contact all other wards in the hospital to establish if the medicine can be obtained **without removing** it from its original container.
- The nurse in charge will delegate a nurse to go to the identified ward to obtain the required medicine. The delegated nurse must take with her/him the patient's HEPMA Medicines Administration Chart (MAC) and the ward Medicine Transfer Form (Appendix 6c).
- The nurse in charge of the dispensing ward will check HEPMA and both nurses will complete and sign the Medicine Transfer Form for both the ward requesting and the ward providing, indicating the medicine and the quantity.
- Pharmacy should be notified of the transfer of medicine via e-mail as soon as possible.
- Each ward must return the Medicine Transfer Form to pharmacy.

4. Emergency Medicine Supply

In the event of the medicine not being available through withdrawal of medicines from the Emergency Drug Cupboard or obtaining a medicine from another ward, it will be the responsibility of the nurse in charge of the ward to liaise with the Senior Clinical Cover on site. If deemed appropriate, a special delivery will be arranged by the Senior Clinical Cover on site via NHS Lothian Out of Hours Pharmacy Service.

- The on-call pharmacist must be contacted via switchboard at St John's Hospital - (Tel: 01506 523000).
- Switchboard will initially contact the pharmacist who will, in most circumstances, respond by telephone at latest 20-30 minutes after the message has been sent. If at any time switchboard places your call directly to the pharmacist's own telephone number and they are unavailable, please call switchboard to contact them again or in extreme circumstances, to contact an alternative pharmacist.
- **NB** Do not leave a message on an answer machine as this can lead to delays in the call being answered.
- If medicines are requested, the pharmacist will require **a copy of an appropriately completed and signed Out of Hours Order Request Form** (Appendix 6d) **held on the intranet and in Senior Clinical Cover folder** to be supplied or emailed. The on-call pharmacist will advise as to which email or pharmacy department to send the request.
- If Controlled Drugs are requested, the fully completed and signed **original Controlled Drug Order Book** must be sent to the pharmacy department before the supply can be made. The on-call pharmacist will confirm to which pharmacy department the book is to be sent (see Appendix 5).
- Senior Clinical Cover on site will liaise with security to arrange transport for the collection of medicines.

Appendix 6a

The State Hospital

Pharmacy Department

URGENT MEDICINE REQUEST FORM

Ward	……
Date	……
Time	……
Medicine (generic name)	……
Requesting nurse	……

Removed from cupboard by:

Name (print)	……
Signature	……

Received at ward level by:

Date	……
Time	……
Check with kardex (tick)	……
Name (print)	……
Signature	……

Please return this sheet to The State Hospital Pharmacist – A.S.A.P.

Appendix 6b

The State Hospital

Pharmacy Department

URGENT WARD SUPPLY LIST

If a medicine is requested via Senior Clinical Cover out of hours, the following details must be completed when the medicine is withdrawn from the Emergency Drug Cupboard.

An **"URGENT MEDICINE REQUEST FORM"** must also be completed. This includes details of the nurse receiving the medicine at ward level.

Date	Ward	Medicine	Pack size	Supplied by

Appendix 6c

The State Hospital
Pharmacy Department

MEDICINE TRANSFER FORM

Ward: ……..

Date	Ward Requesting Transfer of Medicine	Ward Providing Transfer of Medicine	Medicine	Dose	Quantity	Signature of Requesting Nurse	Signature of Providing Nurse

Appendix 6d

The State Hospital

OUT OF HOURS ORDER REQUEST FORM

WARD …… **DATE**……

Item	Quantity	PHARMACY USE

Ordered by …… (sign)

…… (print)

The on-call Pharmacist will specify an e-mail address to send this to.

NB: Urgent Out of Hours requests must be from the Senior Clinical Cover on Duty to the on-call pharmacist via St John's Hospital switchboard 01506 523000

Pharmacy Ref. No. ……..

Appendix 7

MEDICINES REFRIGERATOR TEMPERATURE MONITORING LOG

Ward: …… Month: …… Year: ……

- The Refrigerator Temperature Monitoring Log must be stored beside the refrigerator at all times
- The temperature must be maintained between **+2°C and +8°C**
- Maximum, minimum and current temperatures must be checked and recorded **DAILY** (all working days) ***Thermometers must be RESET after each reading has been taken**
- The medicines storage refrigerator must be locked and not be used for any other purpose e.g. storing of food
- The temperature log(s) must be retained in the ward for at least 1 year
- *If temperature is outside range with no reasonable explanation (e.g. door open for medicines delivery etc.) or in the event of refrigerator failure:
  - store medicines under proper conditions as soon as possible (i.e. nearest clinical area with medicines refrigerator)
  - quarantine medicines (i.e. do not use) until guidance is sought from Pharmacy
  - document date and initial any corrective action taken
  - contact Estates for replacement fridge

		Recorded Temperature					
Day	**Time**	**Max ºC**	**Min ºC**	**Current ºC**	**Thermo-meter button reset (tick)**	**Signed**	**Action resulting from readings recorded outside +2ºC to +8ºC** (continue comments overleaf, noting relevant day)
1st							
2nd							
3rd							
4th							
5th							
6th							
7th							
8th							
9th							
10th							
11th							
12th							
13th							
14th							
15th							
16th							
17th							
18th							
19th							
20th							
21st							
22nd							
23rd							
24th							
25th							
26th							
27th							
28th							
29th							
30th							
31st							

Recordings for month reviewed by Senior Charge Nurse: Date …….. Signature ……

Appendix 8

PROCEDURE FOR RETURNS AND DISPOSAL OF MEDICINES

All items must be checked and recorded on the ward returns book by the pharmacy technician before either returning to the pharmacy cupboard in the Health Centre or disposal on ward.

Ward staff on occasions may put individual doses of unwanted/dropped solid dose medicines in to the ward pharmaceutical waste bins (including recorded or controlled drugs provided witnessed). All items must be documented on the pink, duplicate returns book next to the bin as a record of contents.

Stock items will only be accepted for return if the items have been removed from the ward stock list as part of ward-stock list review, there has been significant drop in ward usage and the product can be used elsewhere or ward closure.

1. Items for return

The following items can be returned from wards:

- Full packs (if expiry is more than 6 months and/or item is of high cost)
- Split packs (if more than ¾ of a pack and can be used elsewhere in the hospital, expiry and batch number clear and/or item is of high cost)
- Items dispensed for individual patient no longer required (only if patient still in hospital)
- ALL liquid medicines must be returned to pharmacy cupboard in the Health Centre for either reuse (full pack) or disposal via a larger pharmaceutical waste bin.
- ALL cytotoxic/chemotherapy medicines must be returned to pharmacy cupboard, Health Centre by Pharmacy staff in appropriately labelled packaging and suitable disposal in a separate Cytotoxic waste bin will be arranged via Pharmacy Department at St John Hospital's (SJH) Area Store.

A separate page of the pharmacy returns book should be completed by the pharmacy technician for all items being returned and signature obtained from registered nurse

Items should be sealed in a ward pharmacy box and uplifted by the hospital porter to bring to the pharmacy cupboard in the Health Centre on pharmacy box pick up day. All items that are able to be redistributed should be added to the excess stock list and stored in the excess stock cupboard until re-issued to another ward.

2. Items for disposal

The following items can be disposed of at ward level:

- Expired medication
- Patients own medication (patient no longer in hospital or expired)
- Split packs not suitable for re-use within the hospital
- Loose tablets not in their blister/foil packaging

NO Cytotoxic/chemotherapy waste should be added to ward pharmaceutical waste bins. Items should be returned and disposed of into a separate waste bin clearly marked "Cytotoxics" as described above via SJH Area Store.

NO empty glass bottles should be disposed of into the ward pharmaceutical waste bins Empty glass medicine bottles should be disposed of via glass disposal route on ward.

NO controlled drugs (schedule 2 and 3) should be disposed of into the ward pharmaceutical waste bins. These medicines require to be denatured by a member of registered pharmacy staff as per safe use of medicines policy.

NO recorded drugs should be disposed of into the ward pharmaceutical waste bins. These medicines should be returned to the pharmacy cupboard in the Health Centre for disposal via a large pharmaceutical waste bin.

A separate page of the pharmacy returns book should be completed by the pharmacy technician for all items being disposed of at ward level and signature obtained from registered nurse.

3. Use of pharmaceutical waste bins

All items that are being added to pharmaceutical waste bins should be recorded. The pink duplicate ‘returns’ book to be used for this purpose is stored next to the pharmaceutical waste bin in a locked cabinet. These apply to ward waste bins and also the larger pharmaceutical waste bin in the pharmacy cupboard in the Health Centre.

The pharmacy technician will assemble the pharmaceutical waste bin. Every bin should be clearly labelled with pharmacy details, area being used, signed and bin.

All unnecessary packaging should be removed and medicines placed in pharmaceutical waste bin. Anonymise all packaging bearing a patients name prior to disposal in standard waste stream.

The pharmacy technician will seal the ward pharmaceutical waste bins when it reaches the level permitted or after 1 year depending which comes first. When sealed a date and signature will be added and a cable tie (these are coded to that particular area and are available on each ward) will be attached to the bin.

For sealed pharmaceutical waste bins the pharmacy technician will complete returns book for the sealed bin. A copy of returns note and the sealed bin should be placed into the green pharmacy box (sealed) for return to the pharmacy department, NHS Lothian, for disposal.

When sealed pharmaceutical waste bin and returns note accepted by the pharmacy at NHS Lothian a copy of the completed returns note will be sent back to the pharmacy at TSH to file.

Appendix 9

PROCEDURE FOR THE ADMINISTRATION OF ALL MEDICINES INCLUDING ROLE OF OBSERVING MEMBER OF NURSING STAFF

The following procedure refers to the administration of all medicines. Additional procedures for injectable medicines and other identified routes are detailed in Appendices 10, 11 and 12.

1. Location and role of the observing member of nursing staff

Location
The administration of medicine is an important event in the patient's day and should be carried out without distractions for either patient or nurses. All medication should routinely be administered from the ward treatment room by the administering nurse and an observing member of nursing staff. Nursing staff should ensure individual attention is paid to the patient's needs and concerns as well as ensuring that the medication is actually taken and the procedure carried out effectively.

At weekend morning medicines administration rounds or if patients confined to their rooms then the medicine trolley can be taken to the night station for this purpose. The trolley must not be left open or unattended at any time. In individual situations, e.g. acute psychiatric emergency, administration may be necessary away from the ward treatment room or night station.

Role of the observing member of nursing staff
The role of the observing member of nursing staff is to observe the patient from the moment they receive their medication until the administration of their medication has been completed

The observing member of staff can either be a registered or unregistered member of the nursing team. They play an important role in the safe administration of medicines.

Immediately after the patient receives their medication from the administering nurse particular attention should be paid by the observing member of nursing staff to any of the following:

- The patient coughing, especially into his hand perhaps secreting the medication
- The patient attempting to turn away from the observing member of nursing staff
- The patient placing medication under the tongue
- The patient being unwilling to engage in conversation
- The patient being unwilling to swallow more than a very small amount of water, hence the reason a full glass of water should be provided and consumed
- The patient going straight to a particular area e.g. toilet

In addition, it is good practice for patients to have their topical medications administered prior to any oral medications to reduce the risk of diverting tablets/capsules.

2. Prescribing

Prescribing at the State Hospital is electronic using HEPMA.

3. Ordering and storage

Refer to guidance in Section 4.

4. Expiry dates

Medicines must not be used out with their recommended expiry date/shelf life.
For certain preparations, e.g. liquids, eye drops, GTN tablets, the date of first opening **must** be recorded on the container unless otherwise directed.

5. Controlled Drugs

The procedure for the administration of controlled drugs can be found in Appendix 5.

6. Selecting and preparing

The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.

- Ensure that the relevant patient is available and able to receive the medicine.
- Do not leave medicines unattended or unsecured.
- Read the prescription on HEPMA carefully noting:
  - Patient name
  - Patient hospital number, date of birth or CHI
  - Day/date
  - Medicine
  - Dose
  - Time/frequency
  - Route of administration
  - Drug sensitivities

- Where necessary check that the medication is covered by a T2B/T3B
- When selecting and preparing the medicine:
  - Wash hands
  - Remove all watches, jewellery with the exception of a plain band as per HR40 Standards of Dress policy and Clinical/Non-Clinical Uniform Policy
  - Cross check the medicine strength and dose with HEPMA. If the medicine strength stated on HEPMA is not available, it is acceptable to give alternative strengths to administer the prescribed dose.
  - Check the expiry date and ensure correct storage
  - Alteration to the formulation of the medication, e.g. crushing, should not be undertaken without prior discussion with a pharmacist or the pharmacy department
  - A non-touch technique should be used to avoid damage and contamination
  - Measure the prescribed dose into a suitable container
  - If liquid preparation, note date of first opening on the label

7. Administering

Persons authorised to administer and check medicines must have sufficient knowledge of the medicine being administered, and of the patient to whom the medicine is being administered to be able to intervene in circumstances where administration is not appropriate.

- Confirm patient identity by confirming verbally with patient
- When the identity of the patient is not known to the person administering the medicine another member of staff should confirm the patient's identity prior to the administration
- If there is more than one patient with the same or similar name: ensure the patient is identified correctly
- Check the medicine and patient's identity against HEPMA
- Check consent status
- Explain the procedure to the patient (for routes other than orally) and provide information on the medicines to be administered. This is an ideal opportunity to discuss benefits or any adverse effects with the patient. The effect of ongoing encouragement to keep taking their medicines should not be underestimated
- Administer the medicine via the prescribed route
- Responsibility rests with the nurse administering the medicine to ensure patient compliance and ensure that the medicine has been taken

- Seek medical advice if it is suspected that only a part dose of a medicine has been administered correctly e.g. discarded by patient during the administration process.

8. Recording

All staff administering medication must have completed HEPMA training and have HEPMA user credentials. Medicine should be charted on HEPMA or on the Medicines Administration Chart (MAC) if HEPMA is unavailable.

When an "as required" psychotropic medicine is administered then a record must be completed on a RiO prn form in line with the 8 Rights of medicines administration and a reference made in progress notes. This form also prompts physical and observation monitoring following an intra-muscular injection on a NEWS form.

Where supervising a student nurse in the administration of medicines, witnessing of all medication must be charted on HEPMA.

There may be times when specialist nurses are required to come into the hospital and administer medicines e.g. palliative care or district nurses. In these cases they must sign the appropriate documentation. This may include use of NHS Lanarkshire primary care palliative care documentation within the hospital. Appropriate guidance and training will be given on these occasions.

<u>Administration/Missed Doses</u>

- **Every** medication must be charted on HEPMA including as required e.g. NRT lozenges
- Wait to chart medication on HEPMA **after** you have observed the patient taking it
- If patient refuses medication but you think they might accept it in a reasonable timeframe then hold off charting it (if chart as refused a new prescription will be required if they change their mind)

N.B Once something has been charted it can't be undone. A RiO entry is required if any medicines are charted in error, or should have been charted but wasn't, and a DATIX recorded.

If a dose is not administered:
- Select Non-administration and the most appropriate reason from the dropdown menu on HEPMA.
- Inform the nurse in charge/responsible doctor/pharmacy where appropriate
- If the medicine is refused dispose of this in the ward pharmaceutical (blue lid) waste bin. Record the destruction on the recording sheet plus the pink pharmacy returns books next to the waste bin
- Inform the nurse in charge/responsible doctor/pharmacy where appropriate. For refusals of regularly prescribed laxatives (especially in patients prescribed clozapine) this must be communicated to the doctor after no more than 3 days)

<u>Once only prescriptions</u>
- A once only prescription is intended for administration the same date as the prescription. However, it will remain on HEPMA until charted as administered or a non-administration reason is given, unless it is discontinued by a prescriber.

9. Other general notes

- When pouring liquid medicines, pour carefully at eye level with the label uppermost. If label stained or obliterated DO NOT USE
- Liquid medicines must be administered separately and not mixed in the same container
- Medicine containers must never be left uncapped, even whilst a medicine round is in progress

- Medicines must be given in the form indicated on HEPMA, with the correct dose being administered.
- If the medicine strength stated on HEPMA is not available, it is acceptable to give alternative strengths to administer the prescribed dose.
- Tablets should only be crushed if there is a note instructing to do so. The patient must be given a full glass of water and both nurses must observe carefully that the medicine is swallowed.
- An oral syringe must be used to measure oral doses that are required in doses other than multiples of 5ml.

Appendix 10

PROCEDURE FOR PREPARATION AND ADMINISTRATION OF INJECTABLE MEDICINES INCLUDING INSULIN

To be read in conjunction with Appendix 9 on Procedure for Administration of Medicines.

.

1. Requirements

- Sterile syringe(s) of appropriate size for amount of drug to be given
- Needles - consider the following before selecting the appropriate needle size:
  - manufacturers recommendations for medicine/vaccine to be administered
  - the injection site/route
  - the patient's muscle

NB Check expiry dates and integrity of packaging:

- Cotton wool balls (clinically clean)
- Receptacle (if appropriate)
- Sharps bin
- Clinically clean swab – if necessary, to open glass vial
- Patent intravenous line/cannula, if appropriate

2. Selecting and preparing

- Explain to the patient the use, action and any potential side effects of the medicine(s) involved. Ask about any allergies.
- Decontaminate hands via appropriate method.
- Check prescription, and select correct medicine in the appropriate volume, dilution or dosage note that for insulin both HEPMA and a paper insulin prescription chart should be checked as insulin dose on HEPMA is prescribed as '1 as per chart'.
- Prepare the injection for administration – see below.

- **Drawing liquid from an ampoule into a syringe**
  - Check ampoule for cracks.
  - Inspect the solution for abnormal cloudiness or particulate matter. If this is present, follow local guidelines on action to be taken e.g. contact pharmacy.
  - Tap the neck of the ampoule gently.
  - Cover the neck of the ampoule with a clinically clean swab and snap it open.
  - Inspect the solution for glass fragments; if present, discard the ampoule.
  - Withdraw the required amount of solution, tilting the ampoule if necessary to avoid drawing up air.
  - **NB** The distal ring of the rubber plunger should be level with the appropriate graduation mark on the barrel of the syringe.
  - With syringe in an upright position, tap the syringe to dislodge any air bubbles. Expel air. Any excess solution should be expelled safely e.g. on to a cotton wool ball.
  - Aseptically change the needle and discard used needle into appropriate sharps container. **Never re-sheath a used needle.**
  - Check that the amount of medicine in syringe corresponds with that prescribed.

- **Reconstituting an ampoule in powder form and drawing liquid into a syringe**
  - Check ampoule for cracks.
  - Tap the neck of the ampoule gently.
  - Cover the neck of the ampoule with a clinically clean swab and snap it open.
  - Add the correct diluent carefully down the wall of the ampoule.
  - Agitate the ampoule.
  - Inspect the contents. If particulate material still present continue agitation. If glass fragments or foreign particulate matter present, discard the ampoule.

- **NB** The use of filter needles reduces the risk of contamination with glass fragments.
- When the solution is mixed, withdraw the prescribed amount, tilting the ampoule if necessary.
- **NB** The distal ring of the rubber plunger should be level with the appropriate graduation mark on the barrel of the syringe.
- Tap the syringe to dislodge any air bubbles. Expel air. Any excess solution should be expelled safely, e.g. on to a cotton wool ball.
- Aseptically change the needle and discard used needle into appropriate sharps container. **Never re-sheath a used needle.**
- Check that the amount of medicine in the syringe corresponds with that prescribed.

- **Drawing liquid from a vial into a syringe**
  - Remove the tamper evident seal from the vial.
  - With the needle cover on, draw the syringe plunger back to the desired volume.
  - Remove the needle cover and insert the needle into the rubber cap.
  - Invert the vial. Keep the needle in the liquid and gradually depress the plunger to push the air into the vial. Note – of a large volume of liquid is to be withdrawn, use a 'push and pull' technique, i.e. inject 5ml of air and withdraw 5ml liquid until the required volume is in the syringe. This technique minimises the risk of aerosol spray by avoiding a build-up of pressure in the vial.
  - Release the plunger so that the liquid enters the syringe.
  - Tap the syringe lightly to concentrate the air bubbles. Push the air into the vial.
  - Fill the syringe to the required volume of liquid, draw in a small volume of air then remove the needle from the rubber cap.
  - Expel the excess air; remove the needle from the syringe and either fit a new needle or sterile blind hub.

- **Reconstituting a vial of medicine in powder form and drawing the liquid into a syringe**
  - Use the procedure specified above for drawing liquid from an ampoule to draw the required volume of diluent into a syringe. Inject the diluent into the vial. Release the pressure on the plunger. The syringe will fill with air that has been displaced by the liquid (unless the contents of the vials are supplied under vacuum in which case the vacuum will draw the liquid into the vial). Note – if a large volume of liquid is to be added, use a 'push and pull' technique, i.e. inject 5ml of liquid and withdraw 5ml air until all the liquid is in the vial. This technique minimises the risk of aerosol spray by avoiding a build-up of pressure in the vial.
  - With syringe and needles still attached, shake the vial to dissolve the powder (unless otherwise indicated in the product information).

Follow above for drawing liquid from a vial into a syringe

3. Administration of Intramuscular Injections

General
The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.

- Patient's identity to be confirmed with patient and against HEPMA
- Select the medication on HEPMA and read the prescription carefully
- Check that the medicine is correct for the patient
- Ascertain that the prescribed dose has not already been given
- Select the medicine required and check the label against HEPMA
- Check the expiry date

Requirements
- Sterile syringe and needles
- Foil tray
- Sharps container
- Non sterile gloves

Selecting and Preparing
See Appendix 9 referenced above.

Administering
1. Discuss and explain procedure to patient
2. Give verbal information on any potential effects the patient may experience
3. Instruct or assist patient into a comfortable upright position
4. Choose an appropriate site considering patients condition:
    - the upper outer quadrant of the buttock
    - the front outer aspect of the thigh
    - the upper outer aspect of the upper arm
5. Decontaminate hands
6. If skin at injection site is visibly soiled wash with soap and water and dry completely. Pull the skin taut and introduce the needle at a 90° angle.
7. Withdraw the plunger slightly. If reflux of blood occurs withdraw the needle a little and change direction. If there is no further reflux slowly introduce the medicine. Wait 4 seconds.
8. Withdraw the needle and syringe. Do not re-sheath the used needle.
9. Dispose of syringe and needles in sharps container immediately
10. Decontaminate hands following procedure and removal of PPE if worn

NB: If two IM injections are to be administered then two sites should be used. Do not switch over syringes using one needle in situ.

Z track technique
The Z track technique can be used for all IM injections. It decreases leakage of medication into subcutaneous tissue, thus decreasing pain and possible complications.

- Using the palm or fingers of non-dominant hand, pull skin and subcutaneous tissue of buttock taut towards midline of body.
- Keeping the skin taut with non-dominant hand, insert needle at 90° angle where muscle is thickest.
- Withdraw plunger slightly to ensure that needle is not in a blood vessel. (If reflux of blood occurs, the injection should be abandoned and a new injection prepared. A new injection site should be elected).
- Continue to hold the skin taut and stretched to one side with non-dominant hand.
- Inject the medication very slowly.
- Wait about 10 seconds before withdrawing the needle to allow medication to diffuse through the muscle.
- Withdraw the needle quickly and immediately release the skin held taut by the non-dominant hand.
- Apply light pressure to the injection site for 30 seconds. Do not massage the skin.
- If bleeding occurs from the injection site, wipe area gently with sterile cotton ball or gauze square. Do not apply a sticking plaster to injection site.
- Do not re-sheath used needle**.**
- Immediately dispose of syringe and needles in sharps container.

Recording
A witness to the preparation must complete the ‘witnessed by’ section on HEPMA. The person administering the medication must then chart the dose as given on HEPMA. The witness must be a suitably registered healthcare professional. Note that for insulin the dose should be charted on

HEPMA as well as on a paper administration chart. Correction doses should be recorded on the paper administration chart.

Depot Antipsychotics
These guidelines are to be implemented in conjunction with the General Standards for the administration of all medicines as detailed in Section 5 within the core policy plus Appendix 9 as referenced above.

- **Selecting and preparing**
  - Using aseptic technique, attach needle to syringe.
  - Break glass ampoule with caution and immediately draw up amount of medication prescribed using a green (21G) needle.
  - Expel air where necessary and ensure prescribed dose is in the syringe. The distal ring of the rubber plunger should be level with the appropriate graduation mark on the barrel of the syringe.
  - Change needle. **Do not re-sheath used needle.**

- **Administering**
  - Nurses should be suspicious of high volumes and use more concentrated depot preparation, divided doses and/or recognise when to give dose by splitting and administering in two separate sites.
  - Instruct or assist the patient into a suitable, comfortable position. Ideally, the patient should lie face down with feet turned medially and in plantar flexion thus ensuring the buttocks are in a relaxed position.
  - Make a visual examination of both buttocks in order to evaluate and identify possible injection site complications.
  - Carry out further evaluation of possible injection site complications by superficial and deep palpation of both buttocks. Question patient as to pain on palpation.
  - Choose an appropriate site in the upper outer quadrant of the buttock, free from complications.

Follow the procedure as outlined in Z track technique noted above.

- **Rotation of Injection Site**
  - Choose an appropriate injection site taking into consideration the **manufacturers recommendations** for the preparation to be given, and the patient's condition.
  - The site of injection should be alternated (left to right buttock) from one administration to the next.
  - The site of injection should be noted on Rio following each administration to ensure continuity of treatment.

- **Recording**
  - A witness to the preparation must complete the 'witnessed by' section on HEPMA. The person administering the medication must then chart the dose as given on HEPMA. The witness must be a suitably registered healthcare professional.

4. Administration of Subcutaneous Injections

General
The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed:
- Patient's identity to be confirmed with patient and against HEPMA
- Select the medication on HEPMA and read the prescription carefully
- Check that the medicine is correct for the patient

- Ascertain that the prescribed dose has not already been given
- Select the medicine required and check the label carefully against the prescription on HEPMA
- Check the expiry date

Requirements
- Sterile syringe and needles or pre-packed syringe with needle
- Foil tray
- Sharps container
- Non sterile gloves

Selecting and preparing
See Appendix 9 as referenced above

Administering
1. Discuss and explain procedure to patient
2. Give verbal information on any potential effects the patient may experience
3. Instruct or assist the patient into an appropriate comfortable position
4. Choose an appropriate site, the patient's thigh, abdomen, upper arm or buttock
5. Decontaminate hands
6. If skin at injection site is visibly soiled wash with soap and water and dry completely
7. Pinch the skin and insert needle at a 45° angle if the needle is more than half an inch, and 90° if less than half an inch in length
8. Release the pinched skin but continue to support it
9. Introduce the medicine slowly until the total dose is administered
10. Wait 6 seconds
11. Withdraw the needle
12. Do not re-sheath the used needle
13. Dispose of syringe and needles in sharps container immediately
14. Decontaminate hands

Recording
A witness to the preparation and administration must complete the 'witnessed by' section on HEPMA. The person administering the medication must then chart the dose as given on HEPMA. The witness must be a suitably registered healthcare professional.

5. Insulin

These guidelines are to be implemented in conjunction with the 'General procedure for the administration of all medicines' as detailed in Section 6.

Procedure
This procedure relates to:
a) Insulin administered by nursing staff

OR

b) Insulin administered by the patient under the supervision of nursing staff

Insulin is administered according to the prescribed regimen. Selection of insulin and dosage should be checked by two registered nurses prior to being administered to reduce the risk of medication errors. Refer to document 'Guideline for the administration of Insulin by Nursing Staff' (on intranet) for full details.

Prescribing (see Section 3)
Insulin must be prescribed on a paper insulin prescription chart in addition to HEPMA.

The prescriber must clearly prescribe the full and correct name of insulin. This should include name, strength and origin (human, animal or analogue).

The dose should be written as 'UNITS' and abbreviations such as 'U' or 'IU' should never be used.

Equipment requirements
- Insulin syringe and needle
- Vial of insulin or pre-loaded insulin device with appropriate needle
- Sharps container
- Gloves
- Blood glucose meter

Selecting and preparing
- Ensure correct patient insulin is available, either in vials or prefilled pen device.
- Check name of the insulin and dose against both HEPMA and the patient's insulin prescription chart (check to be done by two registered nurses).
- Check insulin correctly stored and the expiry date.
- Check patient's blood glucose level and record result.
- Prepare the insulin syringe or pen device. The insulin syringe or pen device must not be prepared or stored in advance of the procedure.

Refer to document 'Guideline for the administration of Insulin by Nursing Staff' and the medicine information leaflets within the packages for full details.

Administering
- Select the injection site remembering to rotate the injection site, never use the same site for consecutive injections.
- Insulin should be injected into sub-cutaneous tissue or soft fat, not muscle. To avoid intramuscular injection evidence suggests that raising the skin is best practice. Use of a smaller needle may be recommended by a specialist clinician.
- Continue to raise skin and hold the insulin syringe in place for a count of 10 to ensure that the insulin disperses from the site of the injection.
- Remove the needle and syringe and dispose of both into a sharps container. If a prefilled device is used then use a needle remover, if available, or the outer plastic cap in which the needle is supplied, never re-sheath with small inner plastic cover and dispose into a sharps container.

Recording
The dose, timing and site of the insulin injection must be recorded on the insulin administration chart and initialled by the registered nurse involved in the administration of the insulin. A witness to the preparation must clearly record 'witnessed by' and their initials in the comments section. The dose must also be charted as given on HEPMA.

Appendix 11

PROCEDURES FOR INTRAVENOUS ADMINISTRATION FOR EMERGENCY USE ONLY

Sections below apply only to medical staff skilled and competent enough to administer intravenously

1. Procedure for preparation and administration by the intravenous injection route (bolus)

General
The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.

- Patient's identity to be confirmed with patient and against HEPMA.
- Read the prescription carefully.
- Check that the medicine is correct for the patient.
- Ascertain that the prescribed dose has not already been given.
- Select the medicine required and check the label against the prescription.
- Check the expiry date.
- Identify the patient by checking the name on the prescription against the name on the patient's identity band, or ask the patient to state his or her name and date of birth.

Requirements
- Tray
- Syringe of appropriate size
- Needles
- Compatible diluent (if required)
- Non sterile gloves
- Sharps container
- Labels for syringe if more than one
- Compatible flush (if required)

Selecting and preparing
Refer to Appendix 9.

Administering
1. Discuss and explain procedure to patient.
2. Give verbal information on any potential effects the patient may experience.
3. Instruct or assist patient into a comfortable upright position.
4. Decontaminate hands.
5. Check patency of cannula/intravenous access with prescribed flush.
6. Administer medicine at correct rate using an aseptic technique.
7. Monitor for acute adverse reaction. Stop injection if concerned and inform medical staff and/or nurse in charge immediately.
8. Reflush the cannula with prescribed flush.
9. Apply sterile obturator cap if required.
10. Dispose of waste.
11. Decontaminate hands.

Recording
Prescribe the intravenous medication as a STAT order on HEPMA.

A witness to the preparation and administration must complete the witnessed by section on HEPMA. The person administering the medicine should then chart the administration.

2. Intravenous Fluid Administration

These guidelines are to be implemented in conjunction with the General Standards for the administration of all medicines as detailed in Section 5 within the core policy plus Appendix 9.

Policy
In the hospital environment, it is necessary for a registered healthcare professional witness to check intravenous fluids prior to administration.

Requirements
Patent intravenous line/cannula.

Selecting and preparing
- Check for compatibility with other medicines being administered via same line.
- Check packaging of all equipment and medicines is intact to ensure sterility.
- Check infusion fluid for precipitate or discolouration.
- Check expiry date of all products used.

Administering
- Wash hands if visibly soiled or use alcohol hand rub.
- Connect infusion fluid bag using an aseptic technique and using an infusion device if available.
- Start infusion and adjust flow rate as prescribed. The flow rate must be monitored intermittently throughout the infusion.
- Dispose of waste carefully.
- Wash hands.
- If an adverse reaction occurs, stop the infusion immediately.

Recording
Prescribe the intravenous medication as a STAT order on HEPMA. It is not possible to amend the actual volume given on HEPMA; it can only be recorded as administered or not administered. Any discrepancies should be recorded on Rio. A witness to the preparation and administration must complete the witnessed by section on HEPMA. The person administering the medicine should then chart the administration.

3. Flushing of peripheral lines and cannulae

Definition
An intravenous flush is effectively an intravenous bolus, which is a central component of good practice in the maintenance of intravenous access and in intermittent intravenous therapy.

The purpose of an intravenous flush is to:
- Ensure that the cannula is in the correct position prior to administration of prescribed intravenous medication.
- Maintain the patency of the cannula when not in continuous use for infusion purposes.
- Clear medication from the cannula dead space to prevent drug interactions.
- Clear medication from the cannula dead space to prevent incompatibilities with any infusion fluid prescribed to run through the same cannula prior to recommencing infusion.
- Between prescribed intermittent drug doses due to be given at the same time to prevent drug interactions.
- Sodium chloride 0.9% is the fluid usually used for flushing but if there are compatibility issues other intravenous fluids must be used.

Good practice points

- Only medical staff and registered nurses, or other competent individuals, who have completed an approved training in IV therapies or IV cannulation, may carry out this procedure.
- Use an intravenous flush **between** intermittent intravenous drug doses, **before** commencing and **after** completing intravenous therapy.
- Care should be taken with lines containing powerful vaso-active drugs (e.g. dopamine) so that a bolus dose is not flushed into the circulation.
- As with all aspects of intravenous administration, careful attention to aseptic technique is essential.

4. Intravenous flush directly into cannulae

- An intravenous cannula flush must be prescribed as an 'as required' medicine. A volume of 2-5ml is recommended.

Date	Drug	Dose	Times of administration	Method of administration	Signature
25.4.2020	Sodium Chloride 0.9%	5ml	As required for IV flush	IV	

- The flush should be given with minimal force and at a rate no faster than that recommended for the drug in the line to prevent speed shock.
- Before flushing a cannula check for any obvious causes of poor flow, e.g. kinking or displacement.
- Do not flush blocked cannulae as this may result in thromboembolism.
- The cannula should be removed and re-sited if it is blocked or shows signs of infection or extravasation. Additionally, if there are signs of infection, swabs of the site should be sent for culture and the doctor informed.
- All cannulae should be re-sited after 48 - 72 hours and/or removed when no longer clinically indicated.

5. Intravenous flush to IV giving sets

For medicines administered via a burette or as a secondary infusion through a line with a primary infusion in situ, a volume of approximately 20ml of sodium chloride 0.9% or the primary infusion fluid may be used to flush the line.

NB The primary infusion fluid must be compatible with the medicine(s) being administered; if not 20ml of sodium chloride 0.9% must be used.

Recording

A witness to the preparation and administration must complete the witnessed by section on HEPMA. The person administering the medicine should then chart the administration.

Appendix 12

ADDITIONAL PROCEDURES FOR ADMINISTRATION BY IDENTIFIED ROUTES

The following procedures to be followed in conjunction with general procedures for the administration of all medicines (see Appendix 9).

1. Procedure for preparation and administration by the aural route

General
The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed:

- Patient's identity to be confirmed with patient and against HEPMA
- Read the prescription carefully
- Check that the medicine is correct for the patient
- Ascertain that the prescribed dose has not already been given
- Select the medicine required and check the label against the prescription
- Check the expiry date

Requirements

- Clean receptacle
- Cotton wool balls
- 0.9% sodium chloride solution or warm water (if needed to clean area)
- Tissues

Selecting and preparing

- Identify medicine/check prescription on HEPMA
- Check expiry date
- Refer to manufacturer's information leaflet
- Identify the ear to be treated
- Wash hands. Wear gloves if appropriate.
- Clean area if appropriate

Administering

1. Discuss and explain procedure to patient
2. Give verbal information on any potential effects the patient may experience
3. Position patient with head leaning to the unaffected side
4. Clean hands
5. Ensure auditory canal is straightened by holding pinna of the ear upwards and backwards
6. Instil drops along floor of the auditory canal
7. Massage the area around the tragus to expel air and facilitate dispersal of the drops
8. Ask patient to remain in position for 5 minutes
9. Clean hands

Recording
The person administering the medicine must record the patient's medicine administration on HEPMA.

2. Procedure for preparation and administration by the inhaled route (Metered Dose Inhalers)

General
The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. Also, refer to Section 6.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed.

- Patient's identity to be confirmed with patient and against HEPMA
- Read the prescription carefully
- Check that the medicine is correct for the patient
- Ascertain that the prescribed dose has not already been given
- Select the medicine required and check the label against the prescription
- Check the expiry date

Peak flow measurements should be taken, where instructed.

Requirements
Medicine in correct metered-dose container.

Selecting and preparing
- Ensure personalised inhaler for patient is identified
- Ensure mouthpiece is clean and dry
- Consider the use of a spacer device for improved patient compliance/ administration, if required, and if compatible with inhaler. Check with pharmacy.

Administering
1. Discuss and explain procedure to patient
2. Give verbal information on any potential effects the patient may experience
3. Instruct or assist patient into a comfortable upright position
4. If bronchodilators (e.g. salbutamol, terbutaline) are prescribed at the same time as steroids the bronchodilators should normally be administered first
5. The healthcare professional must witness the patient administering the inhaled medicine, monitoring that;
   - the patient is capable of actuating the device
   - the patient ensures a good seal around the mouthpiece of the inhaler on administration
   - the patient exhales immediately before actuating the inhaler device
   - the patient inhales a deep breath on actuating the inhaler
   - the patient holds breath for a short time before exhaling and breathing normally
6. Advise patient on technique if necessary or contact a clinical pharmacist or nurse specialist to educate the patient

NB Other types of inhaler device, e.g. Easibreathe, Accuhaler, may be prescribed. Please read manufacturer information leaflet or contact clinical pharmacist for instructions on how to use/administer these devices.

Recording
The person administering the medicine must chart the patient's medicine administration on HEPMA.

3. Procedure for preparation and administration by nasal route

General
The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. Also, refer to Section 6.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed:

- Patient's identity to be confirmed with patient and against HEPMA
- Read the prescription carefully
- Check that the medicine is correct for the patient
- Ascertain that the prescribed dose has not already been given
- Select the medicine required and check the label against the prescription
- Check the expiry date

Requirements
Tissues

Selecting and preparing
Refer to manufacturer's information leaflet. Ensure dropper or spray attachment is clear and ready for use.

Administering
1. Discuss and explain procedure to patient.
2. Give verbal information on any potential effects the patient may experience
   - Clean hands
   - Drops
   - Assist patient into an appropriate position
3. Instil drops onto floor of nostrils.
4. Assist patient to raise head after 2 minutes
5. Spray
   - Assist patient to sit upright
   - Insert spray nozzle ½" into nose and apply prescribed number of sprays
   - Advise patient to sniff gently
   - Wipe away any nasal discharge
6. Clean hands

Recording
The person administering the medicine must chart the patient's medicine administration on HEPMA.

4. Procedure for preparation and administration by nebulised route

The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. Also, refer to Section 6.

Requirements
- Nebuliser
- Nebuliser mask or mouthpiece
- Sterile sodium chloride 0.9% ampoules)
- Sterile syringe) if dilution required

Prescribing
The prescriber is required to select the nebulised route of administration on HEPMA.

Selecting and preparing

- Read prescription on HEPMA carefully
- Place medicine for nebulisation in the chamber

Bronchodilators			
Salbutamol 1mg/ml	2.5 ml nebule	=	2.5mg per nebule
Salbutamol 2mg/ml	2.5ml nebule	=	5mg per nebule
Ipratropium 0.25mg/ml	1ml/2ml nebule	=	0.25/0.5mg per nebule
Combivent®	2.5ml nebule	=	Salbutamol 2.5mg and Ipratropium 0.5mg per nebule

Steroids			
Budesonide 0.5mg/ml	2ml respule	=	2ml respule

NB Salbutamol and ipratropium may be mixed together in the nebuliser as long as the maximum volume does not exceed 4.5mls. Check compatibility before mixing any other medicines for nebulisation. Information is available from manufacturer's literature, Practice Nurse or Pharmacy.

Administering

- Discuss and explain procedure to patient
- Give verbal information on any potential effects the patient may experience
- Clean hands
- Instruct or assist the patient into a comfortable upright position
- Fit face mask/mouthpiece comfortably with nebuliser in an upright position
- Nebulise for 5 - 10 minutes via a portable nebuliser
- Clean the equipment daily by washing the mask and chamber in soapy water and rinsing in clean water. Drip dry.
- Patients on long-term nebulised therapy should have the nebuliser unit and tubing changed weekly

Recording

Evaluate efficacy and record details in nursing notes as appropriate. The person administering the medicine must chart the patient's medicine administration on HEPMA.

5. Procedure for preparation and administration by ophthalmic route

General

The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. Also, refer to Section 6.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed:

- Patient's identity to be confirmed with patient and against HEPMA
- Read the prescription carefully
- Check that the medicine is correct for the patient
- Ascertain that the prescribed dose has not already been given
- Select the medicine required and check the label against the prescription
- Check the expiry date

Requirements

- Eye dressing pack (as appropriate)
- Tissues or cotton balls (as appropriate)

Selecting and preparing
1. Identify the eye to be treated
2. Refer to manufacturer's information leaflet
3. If patient/client has an eye infection a separate bottle/tube of ointment should be used for each eye for each prescribed ophthalmic preparation
4. Where indicated bathe appropriate eye from inner to outer canthus using normal saline

Administering
1. Discuss and explain procedure to patient
2. Give verbal information on any potential effects the patient may experience.
3. Clean hands.
4. Position patient with head well supported, tilted back and looking at the ceiling
5. Gently pull the lower eyelid down, using a tissue or cotton wool ball if necessary, and instil drops or ointment
6. Eye drops - instil dose into lower fornix
7. Eye ointment - apply strip of ointment to lower fornix from inner to outer canthus
8. Release the lower lid and close eyelid for 30 seconds
9. Wipe away lacrimation
10. Clean hands

Recording
The person administering the medicine must chart the patient's medicine administration on HEPMA.

6. Procedure for preparation and administration by the oral route

General
The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed:
- Patient's identity to be confirmed with patient and against HEPMA
- Read the prescription carefully
- Check that the medicine is correct for the patient
- Ascertain that the prescribed dose has not already been given
- Select the medicine required and check the label against the prescription
- Check the expiry date

Oral administration also includes buccal and sublingual.

Requirements
- Medicine cup/measuring spoon
- Oral syringe/Syringe (where appropriate)

Selecting and preparing
1. Tablets/capsules
   - transfer the prescribed dose into a suitable container
2. Liquids
   - Shake the bottle where appropriate
   - Measure the required amount of medicine into graduated medicine cup or by using an oral syringe where appropriate
   - Ensure the outer rim of the bottle is clean
3. Where possible administer irritant medicines with meals or snacks. Administer medicines that interact with foods, or those destroyed by digestive enzymes, between meals or on an empty stomach. Contact pharmacy for advice.

Administering

1. Discuss and explain procedure to patient
2. Give verbal information on any potential effects the patient may experience
3. Clean hands
4. Administer the medicine using one of the methods below:
   4.1 Oral tablets and capsules
   - Offer the patient a glass of water (if allowed)
   - Do not break a tablet unless scored. Do not interfere with time release capsules and enteric coated tablets, which should be swallowed whole and not chewed. Refer to pharmacy for further information or see section on Enteral Administration
   - Witness the medicine being swallowed

   4.2 Liquids
   - When administering liquids or when an accurately measured dose in multiples of 1ml is required, an oral syringe should be used in preference to a medicine spoon or measure. **Never use syringes intended for the administration of injections to administer an oral dose.**
   - Witness the medicine being swallowed.

   4.3 Sublingual
   - Witness the tablet being placed under the tongue or the actuated dose being delivered. Ensure the tablet is dissolving and if it is accidentally swallowed within the first five minutes it may be appropriate to repeat the dose of the medicine is not active orally e.g. GTN. Contact pharmacy for advice.
   - Sublingual tablets will not dissolve if the patient has a dry mouth.
   - If sublingual glyceryl trinitrate (GTN) is administered ensure the patient is sitting or in the supine position. The maximum dose of three 500 microgram tablets or three sprays of 400 micrograms within 15 minutes should not be exceeded and the doctor should be contacted if such doses are not effective.

   4.4 Buccal
   - Witness the tablet being place between the upper lip and gum and ensure tablet is dissolving. If the tablet is accidentally swallowed within the first 5 minutes it may be appropriate to repeat the dose of the medicine is not active orally e.g. GTN. Contact pharmacy for advice.
   - Some buccal tablets, e.g. Glyceryl trinitrate (Suscard Buccal) may take hours to dissolve.
   - For buccal oromucosal solution administration, e.g. midazolam please ensure local training package has been undertaken.
5. Clean hands

Recording

The person administering the medicine must chart the patient's medicine administration on HEPMA.

7. Procedure for preparation and administration by the rectal route

General

The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. Also, refer to Section 6.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed:

- Patient's identity to be confirmed with patient and against HEPMA
- Read the prescription carefully
- Check that the medicine is correct for the patient
- Ascertain that the prescribed dose has not already been given
- Select the medicine required and check the label against the prescription
- Check the expiry date

Requirements

- Receptacle (if appropriate)
- Non-sterile gloves
- Lubricant (as appropriate)
- Tissues
- Disposal bag
- Prescribed enema or suppository
- Disposable apron and scissors
- Procedure pad

Selecting and preparing

Remove outer plastic/foil wrappers from suppositories

Administering - **Suppositories**

1. Discuss and explain procedure to patient
2. Give verbal information on any potential effects the patient may experience
3. Suggest that the patient empties his bladder. If you are administering a medicated suppository for its systemic effect e.g. diclofenac, it is best to do so after the patient has emptied his/her bowels as they require to be in contact with the mucus membrane of the rectum to be effective. Lubricant suppositories, e.g. glycerine, should be inserted directly into the faeces and allowed to dissolve to enable softening of the faecal mass.
4. Ensuring privacy, instruct or assist patient into a suitable, comfortable position ideally left lateral with knees flexed
5. Ensure a bedpan or toilet readily available or near at hand
6. Place a disposable protective pad beneath the patient's hips and buttocks
7. Clean hands and apply gloves
8. Remove any wrapping from suppository
9. Lubricate a gloved finger and undertake a rectal examination if appropriate
10. Lubricate end of suppository with lubricating jelly
11. Gently insert suppository into the rectum, advancing 5 – 7cm between the anal wall and stool. (NB Limited research has shown that suppositories inserted blunt end first are more readily retained) (Abd-el-Maeboud et al 1991).
12. Repeat this procedure if a second suppository is to be inserted
13. Dry the perineal area with a tissue
14. Give verbal instructions about potential actions/effects. Ask the patient to retain the suppository(ies) for 20 minutes or until he is no longer able to do so. If medicated suppository given, remind patient that its aim is not to stimulate evacuation and to retain suppository for at least 20 minutes or as long as possible
15. Remove and dispose of equipment
16. Clean hands
17. Ensure the patient will manage to the toilet

Administering – Enemas

1. Discuss and explain procedure to patient
2. Give verbal information on any potential effects the patient may experience
3. Suggest that the patient empties his bladder if necessary
4. Ensure a bedpan, commode or toilet is readily available
5. Ensuring privacy, instruct or assist the patient into a suitable comfortable position, i.e. on left side with knees well flexed, the upper higher than the lower one and with the buttocks near the edge of the bed.
6. Place a disposable procedure pad beneath the patient's hips and buttocks
7. Clean hands and apply gloves
8. Remove any protective cap then lubricate the nozzle of the enema or rectal tube with lubricating jelly
9. Expel excessive air and introduce the nozzle or tube slowly into the anal canal while separating the buttocks. (A small amount of air may be introduced if bowel evacuation is

desired. The introduction of the air into the colon will cause distension of the walls and increased peristalsis, which will more effectively induce evacuation).
10. Slowly introduce the tube or nozzle to a depth of 10 – 12.5cm
11. If a retention enema is used, e.g. arachis oil, olive oil, prednisolone etc, introduce the fluid slowly and leave the patient in bed with the foot of the bed raised, if possible to, and appropriate, 45º, for as long as prescribed.
12. If an evacuant enema is used, e.g. docusate sodium, sodium citrate etc, introduce the fluid slowly by rolling the pack from the bottom to the top to prevent backflow, until the pack is empty or the solution is completely finished.
13. Slowly withdraw the tube or nozzle
14. Dry the patient's perineal area with a gauze swab
15. Ask the patient to retain the enema for 10 –15 minutes before evacuating the bowel
16. Ensure that the patient is near to the bedpan or toilet and has adequate toilet paper, or has access to the nurse call system
17. Remove and dispose of equipment
18. Clean hands

Recording
The person administering the medicine must chart the patient's medicine administration on HEPMA.

8. Procedure for preparation and administration by the topical route

General
The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. Also, refer to Section 6.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed:
- Patient's identity to be confirmed with patient and against HEPMA
- Read the prescription carefully
- Check that the medicine is correct for the patient
- Ascertain that the prescribed dose has not already been given
- Select the medicine required and check the label against the prescription
- Check the expiry date

Requirements
- Applicator (as appropriate)
- Non sterile gloves
- Apron (as appropriate)
- Dressing (as appropriate)

Selecting and preparing
Check that the topical medicine has been correctly prescribed, paying particular attention to the:
- formulation of topical medicine (e.g. cream, ointment, lotion),
- concentration of medicine,
- area of skin to be treated
- refer to manufacturer's information leaflet

Administering
1. Discuss and explain procedure to patient
2. Give verbal information on any potential effects the patient may experience
3. Clean hands
4. Apply gloves and, where necessary, apron
5. Administer in accordance with manufacturer's instructions

6. If no instructions are available, contact the clinical pharmacist or health centre.
7. Clean hands

Recording
The person administering the medicine must chart the patient's medicine administration on HEPMA.

9. Procedure for preparation and administration by the transdermal route

General
The administration of medicines must be undertaken in a methodical manner and distractions must be minimised while medicines are being selected, prepared and administered. Also, refer to Section 6.

The following procedure must be undertaken before administering a medicine. If a witness is required, each step of the procedure must be witnessed:

- Patient's identity to be confirmed with patient and against HEPMA
- Read the prescription carefully
- Check that the medicine is correct for the patient
- Ascertain that the prescribed dose has not already been given
- Select the medicine required and check the label against the prescription
- Check the expiry date

Requirements
Non-sterile gloves and bag.

Selecting and preparing

- Select an appropriate area of skin to apply the patch (always check manufacturers information for guidance)
- Inform the patient that a patch should never be placed on or near the breasts. Glyceryl trinitrate (GTN) and fentanyl patches should be applied to the chest, shoulders or inner aspect of the upper arms.
- To facilitate adherence of the patch to the skin ensure that the skin is clean and that no oil or talcum powder has been applied

Administering

1. Discuss and explain procedure to patient
2. Give verbal information on any potential effects the patient may experience
3. Clean hands
4. Apply gloves
5. Remove the previous patch and dispose of appropriately before a new patch is applied
6. Rub the edge of the patch between thumb and forefinger, the stiff protective liner will peel away from the flexible patch
7. Apply patch to the selected area of skin. Press the patch firmly into position with the palm of the hand, pressing for a few seconds to ensure it adheres securely
8. Clean hands
9. If the patch comes off in the shower or bath the skin should be dried thoroughly and the patch reapplied
10. New patches should always be applied to a fresh area of skin, e.g. alternate sides
11. The used patch should be disposed of carefully in a sharps container after folding the medicine to the inside
12. Wash hands and dry thoroughly
13. Transdermal patches should be changed according to the frequency prescribed on HEPMA
14. Some patches may cause local irritation – if severe, discuss with the prescriber before proceeding with further treatment

Recording
The person administering the medicine must chart the patient's medicine administration on HEPMA.

10. Administration by any other routes

Administration by any other routes will be under the direction of specialist services.

Appendix 13

PROCEDURES FOR USE, STORAGE AND HANDLING OF MEDICAL GASES

1. Introduction

These guidelines are to be implemented in conjunction with the 'General procedure for the administration of all medicines' as detailed in Section 5.

Oxygen is the only medical gas used at The State Hospital and is primarily for medical emergency use only. Patients requiring short burst oxygen therapy or long-term oxygen therapy for respiratory disease further advice will be obtained from their respiratory specialist. For oxygen use during Covid-19, please refer to The State Hospital Covid-19 Clinical Care Support Documentation.

Medical gases are medicinal products and are afforded the same degree of control as other medicinal products with regard to authorisation to prescribe order and administer.

Safety in the handling and use of medical gases and medical gas cylinders has been a concern of gas cylinder manufacturers and health care personnel for many years. This section has been prepared in accordance with the recommendations of Scottish Health Technical Memorandum 02-01 (June 2012) taking account of the requirements of the Health and Safety at Work Act, 1974, to offer guidance and instruction to personnel responsible for safety and care in the ordering, handling, use, and storage of medical gases and medical gas cylinders.

2. Prescribing

Medical gases must be prescribed on HEPMA.

3. Requirements

- Oxygen from cylinders
- A gauge and flow-meter corresponding to the medical gas to be administered
- Tubing (disposable)
- Mask to deliver prescribed oxygen concentration
- If cylinders are being used then a suitable stand and cylinder key are needed when appropriate

4. Selecting and preparing

- Check the identity of the medical gas.
- Check expiry date before commencing administration.
- Ensure correct mask being used.

5. Administering

- Reassure the patient and explain the procedure and equipment to be used. **NB** Patients who require therapy with medical gas may be frightened and distressed so the equipment and treatment must be explained clearly.
- Patient should be placed or assisted into the most suitable and comfortable position.
- Oral hygiene should be performed prior to and regularly throughout administration.
- **Masks** - should fit comfortably and cover the patient's nose and mouth to ensure correct delivery of the medical gas.
- Adjust the flow to the prescribed rate.
- Assess the condition of the patient at frequent intervals.
- Report any alteration in the patient's condition and/or vital signs to the doctor immediately.

6. Recording

Record administration in nursing notes where appropriate, as well as charting as administered on HEPMA.

7. Areas of responsibility

The Director of Nursing and Operations, Lead Pharmacist and Head of Estates and Facilities, must ensure that all staff in their area of responsibility are adequately trained regarding medical gases, both in routine use and in emergency situations.

Nursing staff
The Lead Nurse/Senior Charge Nurse will assume responsibility for the safe and secure storage, handling and use of medical gases in his/her area of control. This includes ensuring the availability and maintenance of the necessary equipment for administration of medical gases to patients, and storage of medical gas cylinders.

The Lead Nurse/ Senior Charge Nurse is responsible for ensuring effective and efficient stock control of any medical gas cylinders held.

Pharmacy
The Lead Pharmacist has delegated responsibility for the procurement and supply of medical gases and medical gas cylinders, as these are considered medicines.

Estates Department
Medical gas cylinders are procured by the Pharmacy Department and distributed to wards by the estates staff. The Head of Estates and Facilities is responsible for ensuring that estates staff inform the pharmacy ordering staff when supplies of medical gas cylinders require to be re-ordered, with reference to a minimum stock list issued by the Pharmacy.

The Head of Estates and Facilities is responsible for the maintenance, safety, and security of cylinder storage areas and associated transportation equipment.

8. Storage of medical gases

Wards
The Nurse in Charge is responsible for the safe and secure storage of medical gas cylinders in the ward clinic or department, and for ensuring the following:

Cylinders are located in a safe position and secured so they cannot fall over. Cylinders are not stored or used freestanding.

Cylinders are located near to an exit so that they can be removed quickly in an emergency such as a fire. However, they must not block the exit, or present any other type of hazard.

Cylinder storage areas are identified by signs (indicating gas storage) and are well ventilated.

Cylinders are sited away from storage areas containing highly flammable liquids and other combustible materials, and from sources of heat or ignition.

Lightweight CD oxygen cylinders with integrated regulator are provided for the medical emergency bags.

(Main) Cylinder stores
The Head of Estates and Facilities is responsible for the safe and secure storage of medical gas cylinders in the cylinder stores, and for ensuring the following.

The cylinder stores are kept locked when not in use. Access is restricted to authorised personnel only.

Medical and industrial (non-medical) gases are stored separately.

Cylinders of size “F” and greater are stored secured in the vertical position to prevent toppling.

Different sizes and types of medical gas cylinders are stored in separate racks or defined areas.

Full cylinders are arranged so that oldest stock is used first. On receipt, cylinders are positioned in the store, such that good stock rotation is maintained.

Cylinders are not subject to extremes of temperature.

Full and empty cylinders are segregated in clearly defined areas.

Cylinders are not defaced by marking with chalk, paint crayon or other material.

On return to the store, cylinder valves are tightly closed and where appropriate valve outlets capped and plugged. Cylinder valve guards or caps are in place and properly secured.

Cylinders containing oxygen and oxidants are stored segregated (if possible by a physical barrier) from flammable gases. Flammable gases are not stored routinely, and if required, quantities are kept to a minimum.

Cylinder stores are kept clean and dry and free from inflammable material. Rubbish is not allowed to accumulate.

The area surrounding the stores is kept free of vegetation or other combustible materials.

9. Delivery and receipt of medical gas cylinders

Introduction

All areas that receive medical gas cylinder deliveries must have procedures in place for the delivery and receipt of medical gases. The following is recommended as best practice:

On arrival, the delivery driver must contact the Estates department or site responsible person.

Cylinders must be received by a staff member trained in the management of medical gas cylinders.

The key for the medical gas cylinder store should be held securely and released under signature only to approved personnel, who must return it as soon as possible after completing receipt of the cylinder delivery.

The person receiving the cylinder must check the following:

- The name of the gas on the cylinder label and colour identification of the cylinder
- The quantities and sizes of cylinders received
- That only one batch number label is affixed to each cylinder
- That each cylinder has a protective cover over the valve outlet. This cover may be a viscose seal alone, a viscose ring and a plastic cap, or a metal screw-on cap
- That an equal number of empty cylinders of each type are returned unless otherwise instructed

Cylinders not complying with any of the above must not be accepted. Discrepancies must be noted by the person receiving the cylinders who must amend the delivery note appropriately.

Received cylinders must be positioned in the cylinder store so that good stock rotation is maintained. Cylinders with the oldest date of filling must be issued first. All cylinders must be used

or returned within five years of the date of filling as recorded on the circular label on the cylinder valve.

On completion of cylinder receipt, delivery notes must be signed and dated by the person receiving the cylinders and sent to the appropriate department. .

The delivery note must be reconciled with the copy order and dated as a record of receipt of the cylinders. The goods received note and the copy order are filed and kept as permanent record of receipt of that order.

Replenishing stocks of medical gas cylinders
Where medical gas cylinders are supplied from a central cylinder store, then procedures must be in place for re-ordering cylinders from the medical gas cylinder supplier. Estates have a stock list to ensure that the correct quantities and types of gases are ordered. Requests are submitted to Pharmacy who complete an order and scan and email to NHS Lothian.

10. Safe handling and use of medical gas cylinders

Introduction
Medical gas cylinders, though robust, should be handled with care and only by personnel who have received training and understand the hazards involved. The details given below are intended to serve as a reminder to staff who regularly handle and transport cylinders and who have received formal training. The guidelines are therefore intended to supplement, and not replace, formal training.

General Guidelines
Do not smoke or use naked lights in the immediate vicinity of a cylinder or in confined areas where cylinders are kept or stored.

Do not subject cylinders to temperatures above 45 degrees centigrade.

Where a large number of cylinders are to be moved, appropriate protective clothing (gloves, overalls, safety boots) should be worn. Heavy protective gloves (preferably textile or leather) and protective safety footwear must be worn when loading or unloading cylinders. Gloves, protective boots and overalls must be clean and free from oil or grease.

Ensure cylinders are kept free from dirt, grease and oil, including hand creams, alcohol gels.

Ensure all equipment used to transport cylinders (e.g. trolleys) is clean and free from dirt, grease and oil.

Handle cylinders with care - do not allow them to knock against each other or against other pieces of equipment. Ensure cylinders are secured to prevent them falling or rolling against each other during transport.

Do not use cylinders as rollers - do not roll or drag cylinders along the floor.

Avoid lifting cylinders by their caps or valves where possible.

Move cylinders only with the appropriate size and type of trolley.

Use medical gas cylinders for medical treatment only (normally associated with respiratory function) and not for other purposes such as welding, laboratory experiments, etc.

In use, cylinders are located in a safe position and secured so they cannot fall over.
Cylinders are not stored or used freestanding.

With the cylinder in an upright position, prior to connection of the regulator, the valve should be opened momentarily to blow away any grit or foreign matter from the valve seating. The handler must ensure that no part of their body is in line with the valve outlet and the valve is not held during this procedure.

Equipment flow control valves must be closed before opening the cylinder valve.

To open a cylinder valve, the spindle should be turned slowly anti-clockwise to its fullest extent then turned back half a turn, using the appropriate cylinder key or hand wheel where fitted. To close the valve turn the spindle or hand wheel fully clockwise. Moderate pressure only should be used when closing the valve.

Ensure that the cylinder valve is closed and that residual gas is vented to the atmosphere by opening the flow control valve before removing the regulator or administration equipment from the cylinder.

When a cylinder is not in use, the cylinder valve should be closed.

Equipment for use with medical gases
All administration equipment must comply with the relevant British Standard and must only be used with the gas for which it is designed. This should be checked before connecting any piece of equipment to a medical gas cylinder.

Administration equipment (cylinder regulators and flowmeters) may only be issued by the Estates department. If any item of administration equipment is found to be damaged or leaking it must not be used and should be taken during normal working hours to the Estates department for replacement on a service exchange basis.

Cylinders and tubing must be checked as part of the weekly security checks on the ward and includes amount and expiry dates.

Precautions for oxygen therapy
There is a serious risk of fire when patients are in close proximity to forms of ignition when receiving oxygen therapy. Oxygen, although not flammable, will increase the burning rate of any combustion. The following precautions must be taken.

Fire and safety warning signs must be conspicuously displayed in all wards and departments where oxygen is to be administered (available from the Fire Officer).

Sources of ignition e.g. lighters, matches, open fires, cookers must be removed.

Safe transport of medical gases
The following general guidance applies at all sites:

The Head of Estates and Facilities must ensure that the risks arising from the transport of gas cylinders around the hospital site are assessed, and appropriate precautions established and applied.

Gas cylinders must only be transported using containers and or vehicles which are appropriate for the size and number of the cylinders, and which allow all cylinders to be firmly secured either horizontally or vertically.

Lifts should be used whenever practicable when gas cylinders are taken from one floor to another. Cylinders of sizes E or larger should never be manually handled up or down stairs.

11. Ordering of medical gas cylinders by wards, clinics and departments

Introduction

The Estates Department has responsibility for delivery, changeover and uplift of cylinders. The pharmacy department will process orders for oxygen cylinders:

- When a cylinder is nearing 'empty' a request for a replacement cylinder should be logged with the Estates Department.
- The 'full' oxygen cylinder can then be transported to the requesting location by Estates staff who will also change over the cylinders.
- The 'empty' oxygen cylinder will be uplifted, returned to the medical gas store and placed in the appropriate location by Estates staff.
- Estates staff will complete the Oxygen Cylinder Supply List (Appendix 14a).
- Estates staff will contact Pharmacy to ensure a replacement cylinder is ordered.
- Out of hours - wards must contact Security via Senior Charge Nurse for a replacement cylinder from the main store.

Faulty cylinders

Cylinders are described as faulty where the complaint is minor and patient safety is not at risk. Typical complaints that are classified as faulty are:

Contents: empty or part-full (where the cylinder is not required for immediate use).

Cylinder: faulty valve operation
damaged valve outlet
minor leaks from valve

If a cylinder is thought to be faulty, the Estates staff must be contacted with details of the fault. Arrangements will be made for a replacement.

The label of the faulty cylinder must be marked "FAULTY DO NOT USE". The faulty cylinder must be segregated from other cylinders. A faulty cylinder must not be returned to the cylinder store unless it is labelled appropriately.

The pharmacy will contact the supplier to inform them about a faulty cylinder. The supplier will supply a suitable label, which will be passed to the Estates staff who must ensure uplift of the faulty cylinder at the next delivery.

12. Emergency procedures

Action in the event of a fire

In the event of a fire, it is stressed that the safety of all personnel must be the first priority.

Initial actions

As soon as a fire is discovered, immediately operate the Hospital Fire Procedure and notify the Fire Services, warning them of the presence of compressed gas cylinders.

Cylinders involved in the fire that cannot be removed safely may burst due to excessive heat and therefore the immediate area must be evacuated.

Subsequent actions

Cylinders in other areas, which might become involved in the fire, should be moved to a safe location, provided it is safe to do so.

After the fire

Cylinders, which have been involved in a fire, must be identified and segregated from other cylinders. Under no circumstances should their contents be used. The supplier must be informed and the affected cylinders returned for examination.

The State Hospital Pharmacy Department

OXYGEN CYLINDER SUPPLY LIST

When supplying an oxygen cylinder, please complete the details below. The empty cylinder must be returned as soon as possible and stored in the appropriate area. Contact Pharmacy to ensure a replacement cylinder is ordered.

Agreed Store Stock Level: 4 x size (CD), 6 x size (D), 1 x size (F)

Date 'full' Cylinder supplied	Ward / Location	Cylinder Size (please tick)			Signature	Date 'empty' Cylinder returned	Signature	Replacement Cylinder Received	
		Size CD	Size D	Size F				Date	Signature