

MEDICATION POLICY		
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1.0 Introduction

Our Lady's Children's Hospital Crumlin (OLCHC) is committed to the provision of high quality, safe care to the infants and children it cares for. To underpin this commitment, this policy has been developed within the relevant legislative and regulatory frameworks, to outline the roles and responsibilities of all health care personnel involved in the prescribing, ordering, storing, administration, documentation and disposal of medication in OLCHC.

This policy must be read in conjunction with:

- NMBI's Standards for Medicines Management for Nurses and Midwives (available online at www.nmbi.ie)
- Medical Council's "A Guide to Ethical Conduct and Behaviour" (available online at <u>www.medicalcouncil.ie</u>)

2.0 Definition of Policy

A 'Policy' is a course or principle adopted and proposed by Our Lady's Children's Hospital, Crumlin which must be adhered to by all staff during their course of work, and a breach of which could lead to disciplinary action.

Policies are systematically developed statements based on the best available evidence, legislation, regulatory requirements or quality standards and are designed to assist staff in carrying out the function of their post.

3.0 Applicable to

All health care personnel involved in the prescribing, ordering, storing, administration, documentation and disposal of medication in OLCHC.

4.0 Roles & Responsibilities

All medication use within the hospital is overseen and directed by the Drugs and Therapeutics Committee (D&TC) and the Pharmacy Department. The D&TC is a multidisciplinary group from within the hospital which reports to senior management. The committee is responsible for expert governance oversight and review of the medications management service to ensure safe and effective medication usage in the hospital. Refer to the D&TC terms of reference for further information.

Clinical Pharmacists are responsible for providing pharmaceutical care (including performing a clinical review of prescriptions for appropriateness) and in implementing medications management policies in areas where they provide a service.

Pharmacy dispensary staff provide a procurement, compounding, distribution and dispensing service for patients. Staff in the Aseptic Compounding Unit (ACU) provide a sterile compounding service which includes the preparation of chemotherapy. Other members of the Pharmacy Department are responsible for services including informatics, medicines information, medication safety and formulary management and education.

The CEO has corporate responsibility for medication management within the hospital.

Each Clinical Nurse Manager must ensure that each new member of nursing staff is aware of this policy and has read it and understands her/his role and accountability in the administration of medication.

All nurses who have responsibility for any part of Medication Management cycle must adhere to the Code of Professional Conduct and Ethics for Registered Nurses and Registered Midwives, (NMBI 2014).

NCHDs will receive a copy of this policy at induction and must comply with its contents.

All medical staff, and other members of the multidisciplinary team, must ensure that their staff are aware of the contents of this policy and adhere to it at all times. Any health care worker acting outside this policy must be accountable for their actions.

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All doctors must adhere to the Medical Council's guide to Ethical Conduct and Behaviour' and should prescribe appropriate medication for the patient's condition and best interest. (Medical Council 2004).

5.0 Objectives of Policy

To ensure that all health care personnel in OLCHC are fully aware of their legal and professional responsibilities with regard to medication management.

To ensure that all medication management practices are safe, clinically effective, evidence based, economic and comply with appropriate legislative and professional requirements.

To provide child centred care and ensure patients obtain maximum benefit from the medications they need, while at the same time minimising potential harm.

6.0 Definitions / Terms

Administration:	The selection of a single dose of medication from stock or individual patient supply, against a prescription or authorised treatment protocol, which is handed to the patient to take or administered directly by an authorised person.	
ACU:	Aseptic Compounding Unit	
Authorised prescriber:	Any doctor, dentist or nurse authorised by virtue of their qualification and conditions of employment, to prescribe medications for patients under the care of the organisation, subject to any other conditions or medications management policies applicable in the organisation.	
BNF-C:	British National Formulary for Children	
Controlled Drugs	A controlled drug is any substance, product or preparation specified in the Schedule of the Misuse of Drugs Act 1977 and subsequent amendments. Misuse of Drugs Act 1977 and amendments is the legislation governing the management of controlled drugs (CDs) in Ireland.	
Controlled Drugs	A combined register and requisition book used to requisition, sign for the receipt	
Register/Requisition Book	of, record and sign for the use of controlled drugs in clinical areas. (CHC 79).	
Clinical Pharmacist:	Qualified pharmacist who develops and promotes the rational, safe and appropriate usage of medication	
CPA:	Collaborative practice agreement, which sets out the conditions under which a registered nurse prescriber (RNP) may prescribe, when caring for patients in the organisation.	
Dispensing:	Providing, furnishing or otherwise making available a supply of medication to the patient for whom it is ordered according to a prescription or medication order. Dispensing does not include providing an individual with a dose of medication previously dispensed by a pharmacy.	
Hazardous Medications:	Medications which exhibit one or more of the following characteristics in humans or animals; carcinogenicity, teratogenicity/other development toxicity, reproductive toxicity, organ toxicity at low doses, genotoxicity, a structure which mimics existing medications deemed hazardous by the above criteria. (NIOSH 2014)	
HCRN:	Healthcare Record Number (also known as MRN – Medical Record Number)	
Healthcare Record:	A folder for each patient, containing all documentation in relation to the patient's management and care in the organisation; it also includes any information held electronically in the organisation about an episode of care.	
High Risk Medications:	High risk medications are those likely to cause injury or death if they are inadvertently misused or administered incorrectly. Errors with these medications may or may not be more common than others but the consequences can be more devastating to patients (ISMP 2014)	

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HPRA:	Health Products Regulatory Authority
Intravenous Medication Administration Monographs:	Monographs, prepared by the Pharmacy Department containing information on the presentation, preparation, dosing, administration and cautions of intravenous medications used in the hospital.
MDA:	Misuse of Drugs Act 1977 and amendments (refers to legislation governing the management of controlled drugs (CDs) in Ireland)
Medicines/Medications:	For internal or external use, includes Controlled Drugs (Misuse of Drugs Act), diagnostic agents and reagents, non-prescription medications ('over the counter'), herbal and homeopathic remedies
Medication Management:	Medication Management is the process an organisation uses to provide medication therapy to individuals served by the organisation. The steps in the medication management process include selection, procurement, storage, prescribing or ordering, transcribing, preparing, dispensing administration and monitoring.
Medication Incident:	Any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the healthcare professional, patient, or consumer. Such events may be related to professional practice, healthcare products, procedures, and systems, including prescribing, order communication, product labelling, packaging, and nomenclature, compounding, dispensing, distribution, administration, education, monitoring, and use.
Medication Incident report:	Online or paper based report which should be completed following any medication incident.
Medication Record:	Inpatient prescription and administration record, commonly known as a Kardex® or an electronic medication record.
NCHDs:	Non-consultant hospital doctors
OLCHC Formulary:	Our Lady's Children's Hospital Formulary
Ordering/Prescribing:	Synonymous terms for when an authorised person generates a legal order or prescription that directs the prescribing, dispensing and/or administration of a specific medication to a specific patient.
Prescription/Medication Order:	A written or electronically generated order, by an authorised prescriber, for the dispensing, and also the preparation and administration where appropriate, of a medicine or other treatment for a specific patient.
RNP:	Registered Nurse Prescriber
Transcribing:	A process where a person rewrites or retypes the written medication order (prescription)
Unauthorised (exempt) medicine:	Medicines that do not have marketing authorisation from the HPRA and do not have a Product Authorisation number (PA). Unauthorised medicines (previously called unlicensed medicines) may be prescribed by a medical practitioner for individual patients under their direct responsibility, in order to fulfil the special needs of those patients. Such products are defined as "exempt medicinal products"

7.0 Procurement and Formulary Management

All medications must only be procured via the Pharmacy Department in accordance with the Pharmacy Department standard operating procedures on procurement.

A process exists for assessing the safety and suitability of all medications selected for use in OLCHC.

Exempt Medicinal Products (unlicensed) are procured only when an equally safe and licensed alternative is not available (see section 13).

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OLCHC practices generic substitution.

The Pharmacy Department will inform staff via e-mail (and staff notices) of any shortages or relevant changes to medications procured for the hospital. The Hospital Formulary or Intravenous Medication Administration Monographs will be also be updated if necessary.

It is the responsibility of Clinical Nurse Manager 2 to ensure this information is disseminated to nursing staff via ward huddles, risky huddles and ward meetings and other methods of ward communication as appropriate.

The Pharmacy Department limits as far as possible the number of available concentrations of medications.

Product recalls are coordinated in accordance with the Pharmacy Department's Standard Operating Procedure.

The purpose of the formulary is to guide safe prescribing of appropriate medication. The content of the hospital formulary is managed by the Pharmacy Department and overseen by the Drugs and Therapeutics Committee.

Applications for addition of a medicine to the hospital formulary must be made in writing to the Drugs and Therapeutics Committee via the Chief Pharmacist.

Requests for non-formulary medications for once off use in specific patients must be made in writing to the Chair of the Drugs and Therapeutics Committee and the Chief Pharmacist. No medications will be ordered by the Pharmacy Department without prior approval. Refer to 'D&TC Formulary Addition Request Form'. http://olchcnet.hse.ie/Medicines_Information_/OLCHC_Drug_Formulary_/

In some circumstances, consultants, in conjunction with a pharmacist, may arrange with a manufacturer to obtain a supply of medication for a specific patient on a compassionate basis or on an expanded access program. This should be discussed with the Chief Pharmacist and the Chair of the Drugs and Therapeutics committee in advance.

OLCHC has recommended procedures governing the activities of medical representatives visiting the hospital. Refer to 'Recommended Procedures governing the activities of Medical Representatives visiting the Hospital'. http://olchcnet.hse.ie/Medicines Information/Medication_Policy/Procedures for governing the activities of Medical Representatives.pdf

8.0 Prescribing

8.1 General

All medication must be prescribed by a registered medical doctor, registered dentist or registered nurse prescriber in accordance with their Collaborative Practice Agreement. Refer to *Policy on Nurse Prescribing in OLCHC.*

http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/Nurse_Prescribing_in_OLCHC_2015.pd f

Prescribers must comply with relevant legislation, OLCHC Medication Policy, OLCHC Clinical Practice Guidelines and professional guidance when prescribing.

Prescribers must use approved OLCHC prescription stationery or prescribe electronically in areas where electronic prescribing is in operation.

Where electronic prescribing is in operation, prescribers may only prescribe on completion of electronic prescriber's training.

Hospital prescription stationery should only be used to prescribe for OLCHC patients, patient contacts requiring antimicrobial prophylaxis, resident mothers requiring paracetamol (prescription must be written and filed in the child's healthcare record). Hospital headed paper should not be used for writing prescriptions.

Hospital stationery should not be used for prescribing for staff or their relatives.

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It is unacceptable practice for other health care professionals to re-write a Kardex or write a prescription for the medical doctor, dentist or registered nurse prescriber to sign.

When writing a prescription, prescribers must adhere to OLCHC's prescription writing standards. Refer to 'OLCHC Prescription Writing Standards'.

http://olchcnet.hse.ie/Medicines_Information_/Medication_Policy_/OLCHC_Prescription_Writing_Standar_ds_Dec_2016.pdf

Prescribers may only use hospital approved abbreviations as outlined in the OLCHC prescription writing standards.

The child's allergy status must be documented on all kardexes and prescriptions by the prescriber.

Paediatric doses should be checked in OLCHC Hospital Formulary (first line) or the BNF-C. Both are available on the hospital intranet. The OLCHC formulary is also available on tablets in use in clinical areas. If any member of staff is unable to find information required for safe prescribing or administration of medication the relevant ward pharmacist or the Medicines Information Service should be contacted for further information.

Where a complex calculation is required to determine a dose, it is good practice to have another health care professional independently check the calculation.

A new Kardex must be used for each inpatient admission. For day care patients receiving a course of treatment (e.g. infliximab) the same Kardex may be used for up to six months. For patients receiving treatment in the Haematology/Oncology Day Units, the same Kardex may be used for up to three months. A new prescription must be written for each episode of care and should be checked against the patient's up to date weight on each occasion.

Only one Kardex should be in use at any time. Where a second Kardex is required for a child, each Kardex must be marked "1 of 2", "2 of 2" etc. Multiple Kardexes must be attached together.

An order for a medication in a child's Kardex/electronic health record must not be altered. Any change to the order (e.g. change of route or frequency) requires the order to be re-written/re-generated electronically.

Only those individuals with prescribing authority may discontinue an individual prescription/order.

Old Kardexes should be cancelled by the prescriber drawing a line diagonally across the front page. The Kardex should then be filed in the child's HCR.

Medication orders on a Kardex are valid for a maximum of seven days, after which the need for the medication must be reviewed and the medication re-prescribed if it is to be continued.

The child's primary team should review and rewrite the Kardex during normal working hours to reduce the possibility of transcription error.

All medications on admission and discharge should be clearly recorded in the child's medical notes in the HCR.

When writing a discharge or out-patient prescription the total quantity to be dispensed and/or the duration of therapy must be stated on the prescription.

8.2 Prescribing Controlled Drugs

All prescriptions issued to patients on discharge or to out-patients for Controlled Drugs (i.e. medications listed in Schedule 2 or 3 of the Misuse of Drugs Regulations Act), must be written in the following format on a Controlled Drug prescription sheet:

(a) The prescription must be in ink or otherwise so as to be indelible and signed by the person issuing it with his/her usual signature and dated by him/her.

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- (b) Clearly indicate the name of the person and state whether he is a registered medical practitioner or registered dentist or registered nurse prescriber within the terms of their CPA.
- (c) Specify the telephone number at which the person issuing it may be contacted.
- (d) Specify the name (including the forename) and address of the patient.
- (e) Specify the dose to be taken, the strength of the preparation and the **total quantity (in both words and figures) to be dispensed.**

Both (d) and (e) must be in the prescriber's own handwriting.

Controlled Drug prescription pads are kept in the Pharmacy department only. (Exception: Palliative care and Acute Pain Services consultants, St. John's ward).

8.3 Prescribing in the Emergency Department

(See section 20.1)

8.4 Prescribing in Operating Theatres

(See section 20.2)

8.5 Prescribing in the Radiology Department

(See section 20.3)

8.6 Prescribing during resuscitation attempts

During a resuscitation attempt certain medications will be administered by the team caring for the patient. It is essential that during and after the resuscitation attempt all medications administered are recorded on the "Emergency Medication Recording Sheet".

All medications administered must be prescribed and signed as administered by the practitioner who has administered them during the resuscitation attempt. In PICU, these medications should be retrospectively charted in the electronic healthcare record and documented as administered.

8.7 Prescribing during major disaster

While caring for patients under the Major Emergency Plan, all treatments for the patient are documented on the Major Emergency Treatment cards.

All medications administered must also be prescribed on this sheet and signed for by the person administering them. Once the decision has been made to admit the patient, all medications must be charted in the patient's Kardex or electronic healthcare record by the admitting doctor.

8.8 Electronic prescribing

Refer to 'Electronic Prescribing Policy'.

http://olchcnet.hse.ie/Policies, Guidelines, Protocols SOP's/Guidelines A-Z/Electronic_Prescribing_Policy_-_ICIP_Policy.pdf

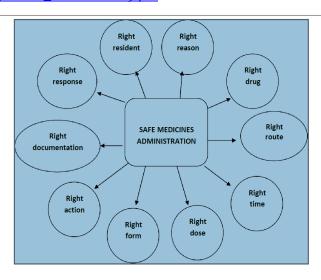
http://olchcnet.hse.ie/Policies, Guidelines, Protocols SOP's/Guidelines_A-Z/Electronic_Prescribing_Policy_-_ICIP_Essential_Rules_for_Users.pdf

http://olchcnet.hse.ie/Policies, Guidelines, Protocols SOP's/Guidelines A-Z/Electronic Prescribing Policy - ICIP User Access Confidentiality.pdf

9.0 Administration of Medications

9.1 Staff entitled to administer and check the administration of medications

Any healthcare practitioner administering a medication should adhere to the ten rights of medication administration.



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- 1. The Right Child
- 2. The Right Reason
- 3. The Right Drug
- 4. The Right Route
- 5. The Right Time
- 6. The Right Dose
- 7. The Right form
- 8. The Right Action
- 9. The Right Documentation
- 10. The Right Response

It is essential that for all types of medications administration, staff attend the appropriate training and are competent to administer prior to undertaking such a role.

Appendix 1 and 2 identify healthcare professionals who can check and administer medication.

A nurse registered with NMBI may administer medications, which have been agreed as per this policy, via an intravenous route provided that he/she has completed specific training (IV Therapy Management Programme).

Agency or "pool" nurses who hold a current three hospital certificate (OLCHC, TSCUH, NCH) <u>may</u> administer intravenous medications. The certificate must be produced and verified by CNM/CNF prior to administration of IV medications.

In service training and assessment should be given in the first six months of employment. Registered nurses who have completed the IV Therapy Management Programme and competency assessment must retain their certificate and workbook and a copy of the certificate should be stored in their clinical area. Nurses who have had a break in service of 18 months must repeat the IV Therapy Management Programme and assessment.

9.2 Child identification

Refer to 'Patient Identification Policy'.

http://olchcnet.hse.ie/Policies,_Guidelines,_Protocols_SOP's/Policies A - Z/Patient Identification Policy.pdf

9.3 Nursing responsibilities

Under no circumstances must a nurse agree to administer a medication unless he/she feels competent to do so, has undergone approved training in any necessary skills and is able to justify his / her actions at all times.

Each registered nurse must maintain their individual knowledge of medication management. It is incumbent on each registered nurse to identify any deficit in their knowledge or practice and take measures to remedy this.

Within OLCHC, all registered nursing staff **must** successfully complete:

- Medication Safety Programme and medication competence assessment
- Intravenous Therapy Management Programme and competence assessment

It is desirable that nursing staff also complete:

• HSE land eLearning Medication Management Programme

All registered nurses who administer medications are responsible and accountable for their safe administration or the delegation (and direct supervision) of this role to nursing students.

Each nurse must be familiar with the Standards for Medicines Management for Nurses and Midwives (NMBI 2015) and The Scope of Nursing and Midwifery Practice Framework (NMBI, 2015).

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All medication must be prescribed by a registered medical doctor, registered dentist or registered nurse prescriber in accordance with their Collaborative Practice Agreement. Certain medications may be administered under an OLCHC Drugs and Therapeutics Committee approved medication protocol without being prescribed on a named child basis.

Nurses are responsible for referring incomplete, illegible or unclear prescriptions to prescribers and or pharmacists for clarification and correction as required **before** administering any medication. Nurses are not authorised to administer medication from a Kardex where the allergy box is not legible or complete.

The registered/student nurse checking and administering the medication must be aware of the pharmacological action of the medication, dose, frequency and route of administration, the desired actions, potential interaction and the potential side effects of the medication.

The registered/student nurse must be aware of the child's history and have confirmed the absence of any relevant medication allergies.

The registered/student nurse must monitor the child for adverse reactions post medication administration. Should an adverse reaction occur, emergency care for the child must first be undertaken, followed by written reporting of the event. The allergic reaction must also be clearly documented in the front of the patient's HCR and Kardex. Adverse events should be reported via OLCHC's incident reporting system and also to the HPRA https://www.hpra.ie/homepage/about-us/report-an-issue/human-adverse-reaction-form

9.4 Checking the prescription

Double independent checking of medication is OLCHC policy. Refer to 'Double Checking Algorithm'. http://olchcnet.hse.ie/Nurse Practice Development Unit /Guidelines/Double Checking Algorithm 2016.pdf

Both healthcare professionals must:

- Independently check the prescription, the child's name, date of birth, hospital number, weight, known allergies, time of administration on the prescription sheet, the medication container and the expiry date.
- Read out the prescription, checking its validity as per OLCHC prescribing standards.
- Confirm the dose, frequency and route is appropriate for the patient by referencing the hospital formulary, the current BNF-C or the Pharmacy Department prior to administration.

When calculating doses or volumes to be administered, both staff members should do the calculation individually using a calculator. It is good practice to double-check the answer on paper, to make sure no decimal place errors have occurred.

The allergy status of the child should be checked and documented. The allergy box must be completed by the prescriber, nurses are not authorised to administer medication from a Kardex where the allergy box is not legible or complete.

The time the medication was last administered and the frequency of the order should be checked. Medications must be administered as close to the time prescribed as possible. A delay in medication administration must be clearly documented on the prescription record using the appropriate coding. A medication incident report must be completed if the medication is late.

9.5 Administering the Medication

The administration of all medications must be documented. Prescription charts must not be signed until immediately after the medication has been administered to the child. Both healthcare professionals should initial the Kardex and complete the signature bank.

A Healthcare professional should not administer medication to a child that he/she has not been involved in checking (exception: infusions in PICU/Theatre)

Medication should be prepared and administered for only one patient at any one time to avoid any potential confusion of medication doses.

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Wherever possible medication should be administered at the same/similar time and in a similar manner to how the parents/carer administers at home.

No medication should be checked and left on a locker for a child to take at a later time. If the medication has been drawn up and the child cannot take the medication at that time or is absent from the room, the medication must be discarded immediately. A new dose should be rechecked and administered when the child returns.

Patient safety is paramount during any medication administration procedure. Therefore staff must ensure all items of equipment taken to the bedside are taken away at the end of the procedure and discarded appropriately (including cannula caps).

If a parent/carer/patient raises concern in relation to a medication, staff should give due consideration to the issue raised and seek to resolve it in an accurate and timely fashion. Children and families are familiar with their medication and may identify a potential error.

The child must be monitored during and following medication administration for adverse reaction. Regular checks should occur for medications being given by infusion.

Response to medication administration should be documented on the nursing care plan evaluation sheet by the nurse caring for the child.

A medication should never be administered unless staff are totally satisfied with all matters pertaining to that medicine. If there is any doubt about a medication, its dosage, or route of administration, the medication must not be administered until the prescription is verified.

In the case that an error or near miss error occurs in relation to either prescribing, preparation or administration of any medication an incident form must be completed and the appropriate steps taken to inform the parents/guardians.

9.5.1 Administrating a Medication under a Medication Protocol

Refer to http://olchcnet.hse.ie/Policies, Guidelines, Protocols_SOP's/SOP's Protocols_A-Z/Administrating_a_Medication_under_a_Medication_Protocol.pdf

9.6 Routes of administration

9.6.1 Intravenous Medications

All staff must be aware of the risk associated with the administration of medications via the intravenous route and aim to give medications via alternative routes where possible.

Medications should not be administered unless the following is clearly written on the Kardex:

- the child's name
- allergy status
- prescriber's signature, name and registration number
- · date of commencement
- medication name, dose and route of administration
- frequency of administration
- the volume and type of diluent and the rate of administration for all infusions charted on the 'intravenous infusions' section of the Kardex.

Each medication must be individually dated and signed by the prescribing doctor. All prescriptions must be rewritten in full if any change is made.

All IV fluids and infusions must be re-charted every 24 hours (Exception: Electronic orders in PICU)

Preparation and administration of a medication must be checked by a second person as per appendix 1 & 2.

Intravenous medication should not be administered directly into a vein without a cannula in situ. The instruction for the insertion of peripheral intravenous cannula <u>must</u> be charted on the Kardex/electronic health record.

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With the exception of nurses in the intensive care units, no nurse is authorised to administer an intravenous anaesthetic agent.

All staff must be informed, or have access to information on the particular medication used.

For detailed information on any preparation including method of administration refer to:

- OLCHC Hospital Formulary and Intravenous Medication Administration Monographs available electronically in all clinical areas
- Summary of Product Characteristics available at www.hpra.ie
- OLCHC Pharmacy Department

A displacement value is the volume occupied by the powder when a suitable diluent is added during reconstitution. Displacement values need to be accounted for whenever reconstitution from a dry powder or crystalline form is required. While the displacement value is not relevant where a complete vial is to be given, it is important it is taken into account where part vials are used for smaller children and neonates. Displacement values are available on electronic tablets and on the intranet.

http://olchcnet.hse.ie/Policies,_Guidelines,_Protocols_SOP's/Guidelines_A-Z/IV Admin Displacment Values.pdf

9.6.2 Intravenous Infusions

The preparation of any infusion solution should take place immediately before administration to the child. The Intravenous Medication Administration Monographs should be consulted prior to preparing the medication.

As a general rule, no more than one substance should be added to any intravenous fluid.

Medications should never be added to an infusion already in process.

IV fluids containing potassium must not be used as a base solution to administer intravenous medications.

When Potassium Chloride or Potassium Phosphate is drawn up, it must be added to the appropriate infusion immediately and the resultant infusion must be appropriately labelled.

Under no circumstances must a syringe containing potassium be left where it could inadvertently be administered to a patient.

When preparing an insulin infusion, the dose of insulin must be measured using an insulin syringe. IV syringes must not be used for this purpose.

When adding a medication to an infusion solution in either a bag or a syringe, the container should be inverted several times to ensure adequate mixing. The fluid should be observed for precipitation at regular intervals during infusion.

Incomplete mixing of a medication in an intravenous solution results in the administration of the *wrong concentration*. This can be extremely dangerous e.g. intravenous Potassium Chloride given too rapidly can cause cardiac arrest. Special care is needed to ensure adequate mixing.

A 'medicine added' label must be completed and attached to the container before the infusion is commenced. This additional label should not conceal any information on the manufacturers label or the fluid level. When the infusion is completed and prior to flushing the label must be removed and discarded.

A buretrol may be used to administer intermittent infusions. The same buretrol may be used for different antibiotics over a 24 to 48 hour period only if the medications are compatible. It is essential to flush the buretrol between each medication administration

The buretrol should be changed every 48 hours unless indicated. Changing the buretrol every 24 hours is only indicated in specific circumstances in the case of children with neutropenia. Each buretrol should be clearly labelled with the date and time that use of the buretrol commenced.

Fifteen (15mL) of flush solution is required to flush a buretrol. For infants and children who are fluid restricted the use of a syringe driver is recommended.

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To reduce the risk of infection an IV line should not be broken unless absolutely necessary. It is not considered good practice to break an IV line when changing clothes or transporting a child. If, however, the line must be disconnected, an aseptic technique level 3 must be used and the patency of the cannula must be checked prior to reconnection.

The batch number and expiry date must be recorded for all blood-derived medications e.g. immunoglobulin preparations and immunisations.

If the patent shows any adverse reaction to the medication, the medication must be **STOPPED**, the child assessed and the doctor informed immediately.

9.6.3 Asepsis and Safety Precautions

Aseptic technique and full checking procedures must be employed at all times when dealing with intravenous infusions and medication administration. Refer to 'Aseptic Non Touch Technique levels Guide'. http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/Aseptic_Non_Touch_Technique_Guide_2013.pdf

The site of any intravenous infusion must be inspected at least every hour when an infusion is in progress for inflammation, infection, extravasation or pressure of the cannula on the surrounding tissue. Refer to 'Guidelines on Care Bundles in OLCHC'.

http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/Care_Bundles_.pdf

Patency of the cannula must be ensured prior to injection.

Continuous intravenous infusions must be changed at least every 24 hours. Exception: unstable patients in PICU on inotropes where it is unsafe to do so.

Administration sets must be changed every 48 hours. Blood administration sets must be changed after the transfusion episode is completed.

Administration sets **must** be changed every 24 hours for Total Parenteral Nutrition (TPN), any fat emulsions, high concentration glucose solutions (greater than 10%) and all neutropenic patients.

9.6.4 Procedure for the Addition of Medications to Intravenous Infusions

Two nurses are required, one must be qualified as per NMBI 2015.

Prepare equipment required

- 1. Kardex
- 2. Medications
- 3. Needles or needle free access for vial
- 4. Syringe
- 5. Appropriate flush solutions (0.9% Sodium Chloride or Glucose 5%)
- 6. Disinfection wipe
- 7. Medication label
- Medication tray
- 9. Gloves and PPE if required

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Method:

- 1. Check the medication to be administered against the prescription record.
- 2. Decontaminate hands.
- 3. Prepare medication solution as directed.
- 4. Check identity of patient with the Kardex and the child's identity band read name aloud
- 5. Check label for type of solution. Inspect contents and expiry date.
- 6. Clean rubber latex at puncture site with an antiseptic swab allow to air dry (approximately 40 seconds or until completely dry.
- 7. Check that the IV site is patent and is not inflamed or oedematous.
- 8. An aseptic technique should be employed if injecting medication into a bag, buretrol or syringe.
- 9. Ensure solution is properly mixed.
- 10. Complete medication additive label and affix to solution bag or buretrol.
- 11. Record details in Kardex signatures of both nurses to be recorded.
- 12. Ensure total amount of medication is infused in specified time if appropriate
- 13. Flush line with appropriate solution to ensure all of the medication has been infused.

9.6.5 Procedure for the Injection of Slow IV Bolus Medications

Follow instructions 1-7 (previous page)

- 14. Clean the rubber latex with an antiseptic swab and allow to air dry (40 seconds). Using the appropriate syringe inject the medication slowly into the needle free device.
- 15. Flush the cannula with 0.5mL of appropriate fluid (unless otherwise indicated) pre and post the administration of a medication.
- 16. If infusion is in progress, recommence at rate prescribed.
- 17. Record details in Kardex signatures of both nurses to be recorded.

9.6.6 Management of Central Venous Access Devices (CVADS)

Refer to 'Guidelines on the care of a Central Venous Access Devices (CVAD) for Clinical Staff' http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/CVAD_--Central Venous Catheter Care 2017.pdf

http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/CVAD - Umbilical_Venous_Catheter_Care_for_Clinical_Staff.pdf

http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/CVAD_-Care and Management of a child in the community on CVAD1.pdf

http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/CVAD_-_PICC_-Peripherally_Inserted_Central_Catheter_.pdf

http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/CVAD_-_Implantable_Ports_.pdf

http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/CVAD_--PermCath_VasCath.pdf

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9.6.7 Administration of Intramuscular and Subcutaneous Injections

Refer to 'Guidelines on the administration of Intramuscular and Subcutaneous Injections' http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/Intramuscular_and_Sub-Cutaneous_Injections_2017.pdf

Note: Insulin doses must be measured using an insulin syringe. IV syringes should not be used for this purpose

9.6.8 Venepuncture and IV Cannulae

Venepuncture

As per 'Venepuncture Guideline for Clinical staff' http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/Venepuncture.pdf

Requesting IV Cannulae

As per 'Intravenous Cannulation Guidelines for Clinical staff' http://olchcnet.hse.ie/Nurse Practice Development Unit /Guidelines/Intravenous Cannulation.pdf

Cannulae may be inserted by a medical doctor or by a member of the IV/Phlebotomy team, or other clinical staff deemed appropriate by OLCHC. All cannulae must be requested on the Kardex/electronic health record with the reason for same.

If additional cannulae are required, they should be requested as 2nd cannula or 3rd cannula and reason for same e.g. replacement fluid, IV antibiotics, IV morphine etc.

Staff should ensure the child is warm, consent has been signed and parents/guardians are aware of the need for the IV cannula insertion

If IV fluids have been discontinued for any length of time and it is found necessary to recommence same or commence other treatment via the cannula, a new request for cannula and treatment is required.

A cannula should not be left in situ following discontinuation of treatment.

9.6.9 Oral/Enteral medications

All medication given by the oral route or via enteral feeding tube must be given in the appropriate purple barrel oral/enteral syringes.

Medications to be given by the enteral route should be in accordance with the 'Guideline on the administration of Medication via Enteral Feeding Tubes (EFTs)'

 $\underline{\text{http://olchcnet.hse.ie/Policies,_Guidelines,_Protocols_SOP's/Guidelines}_A-Z/\underline{\text{Enteral_Feeding_Tubes.pdf}}$

All liquid mixtures should be shaken vigorously to evenly distribute the medication prior to measuring doses.

In general, sustained release/prolonged release/modified release tablets and hazardous drugs (see Section 15) and should not be cut or crushed. Other tablets may be cut or crushed in order to aid administration or to facilitate giving a proportion of a dose. The OLCHC Hospital Formulary, BNFc or Pharmacy Department may be consulted for further information.

Medication should never be added to infant feeds (Exception: Electrolytes ordered by a doctor under the supervision of a dietician, Gaviscon® infant sachets)

Oral medications should never be administered to a sleeping child

Special handling precautions apply to some medications (See Section 15).

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9.6.10 Rectal medications

Rectal medication should be given as per the hospital 'Guidelines on Administration of Rectal Medications' http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/Administration_of_Rectal_Medications_2014.pdf

9.6.11 Inhaled/Nebulised medications

Entonox

Entonox should be administered in accordance with the following guidelines: *'Entonox for Procedural Pain'*

http://olchcnet.hse.ie/Nurse Practice Development Unit /Guidelines/Entonox 2016.pdf

'Sedation in the Emergency Department'

http://olchcnet.hse.ie/OLCHC Clinical Guidelines/Clinical Guidelines for ED A-Z/Sedation_in_the_Emergency_Department_.html

Inhaled anaesthetic agents in PICU

Senior nursing staff in PICU, who have undergone one-to-one bedside training, may administer anaesthetic gases via the AnaConDa device. Refer to 'AnaConDa Guidelines' http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/AnaConDa_Guideline_2016.pdf

Nebulised Medicines

Insert link to new guideline (check with NPDU)

9.6.12 Intranasal medications

Certain medications may be given via a mucosal atomiser device. Refer to 'Intranasal Medication using Mucosal Atomiser Device (MAD).'

http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/Intranasal_Medication_using_Mucosal_ Atomiser_Device_MAD_Oct_2016.pdf

9.6.13 Transdermal Patches

Gloves should be worn when applying and removing transdermal patches

The application and removal times of transdermal patches must be clearly documented on the Patient Kardex.

After removal, patches should be folded in half and disposed of carefully to prevent accidental exposure to the residual active substance in the patch.

9.7 Non-administration of medications

The reasons for **non-administration** of medications must be documented in the nursing notes or medical notes as appropriate. Non-administration must also be documented in the Kardex using the appropriate code.

9.8 Non-written Orders

It is not acceptable for any medication to be administered to a child under the instruction of a verbal message from a medical doctor or dentist in person or over the telephone.

All medications must be prescribed in writing. Telephone orders are not acceptable.

The only exception to this is in the situation of a Cardiac/Respiratory Arrest where the medication is being administered as per protocol and is documented on the OLCHC Emergency Drug Recording sheet. Once the child is stable, the medical doctor should sign the Emergency Drug Recording sheet for the medications that have been administered.

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9.9 Patient's Own Medicines

All medications administered to patients in OLCHC should be supplied via the Pharmacy Department.

If a child is admitted outside of the Pharmacy Department's opening hours or if the medication is not available immediately from the Pharmacy Department, it may be necessary to use the patient's own medication (POM) until the medication can be obtained from the pharmacy.

During the Pharmacy Department's opening hours, the decision to use a patient's own medication should rest with the ward pharmacist after they have assessed the product. The pharmacist should endorse the drug Kardex accordingly.

Outside of the Pharmacy Department's opening hours, it may be necessary for a nurse or doctor to assess the patient's own medications against the following criteria in order to decide if the product is suitable for use. The decision to use a patient's own medication should be documented in the Nursing notes.

- The medication must be in the original container no loose tablets or strips should be used
- The product should have a dispensing label attached. The label should be legible and should state the child's name and name and strength of the product.
- The container and medication should be in good condition. There should be no signs of damage or contamination.
- If specific storage conditions (e.g. store in a fridge) apply to the medication, these storage conditions must have been met.
- The medication must be in date. Note: Some products (liquids, creams, eye drops) have a reduced expiry once the product is opened. Refer to 'Medication In Use Expiry Dates'
 http://olchcnet.hse.ie/Medicines Information /Medication Policy /Medication In Use Expiry Dates.pdf

Professional discretion should remain the over-riding factor in assessing suitability.

The ward pharmacist should also assess the medication at the next available opportunity.

A patient's own medication should never be administered to another patient.

If a patient's own medications are not in use on the ward, the parent/carer should be instructed to bring the medication home. All medications in use should be locked in the appropriate designated area in the treatment room on the ward (Medication press/Fridge/Controlled Drug Safe). Appropriate measures should be taken to prevent cross infection.

Under no circumstances should medications be left in a patient's room (Exception: cystic fibrosis patients).

Patient's own medications should be returned to the patient on discharge. Any changes to dosing should be communicated to the parent/carer and patient. If dosing changes are made, it is recommended that medicines be returned by parent/carer to their community pharmacy for relabelling as per new prescription. Medications should not be disposed of without the parent/carer's consent.

Patient's Own Controlled Drugs

See section 12.4

9.10 Self-Administration of Medication

Currently self-administration of medication is not practiced in OLCHC.

As part of the preparation for discharge, parents are frequently involved in the administration of medication to their children. It is essential that parents are fully informed of the medications to be administered, are educated and supported in taking on this role, and **are supervised** in the administration of medications while in hospital. While the child is still an inpatient the prescription and medication must be checked by two healthcare professionals as outlined above.

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9.11 Complementary Medicines

Homeopathic medicines, herbal medicines and food supplements may interact with prescribed medications. It is recommended that a senior member of the medical team review with parents any supplements or alternative medication being taken on admission. It may be necessary to seek further advice from Pharmacy and or Clinical Nutrition and Dietetic team.

10.0 Supply of medications from Pharmacy Department

10.1 General

All medications used for patients in OLCHC must be supplied through the Pharmacy Department or be the patient's own medications which have been deemed suitable for use.

Pharmaceutical company samples must not be used within the hospital.

10.2 Pharmacy Top-up Service

Most clinical areas have a stock list of commonly used medications. This list is agreed and regularly reviewed by the Clinical Nurse Manager and the Clinical Pharmacist. Ward stock levels are checked and replenished at agreed intervals.

A ward stock list should be available on each ward PC and electronic tablet.

Short dated stock should be removed and replaced by a pharmacy technician on a monthly basis. All healthcare staff should ensure that stocks of medicines are in date.

Checking and stocking of resuscitation trolleys are the responsibility of the manager of the clinical area.

10.3 Clinical Pharmacist supply of non-stock medications

Where resources allow, inpatient medication charts should be reviewed daily (Monday to Friday) by the clinical pharmacist. Any medication prescribed for a patient that is not part of ward stock should be dispensed for that patient and sent to the ward.

If non-stock medications are prescribed outside of this time, but during Pharmacy Department opening hours, nursing staff should, in the first instance contact the Clinical Pharmacist to arrange supply and send a completed pharmacy requisition to the Pharmacy Department for dispensing.

10.4 Pharmacy Medication Order Forms

The Clinical Pharmacist should be contacted before any medications are ordered directly from the Pharmacy Department.

The general Pharmacy Department Medication Order Form is available on H:\BulletinBoard\Pharmacy. This should be used to order all medications except Chemotherapy, Dysport® (Clostridium botulinum toxin), Monoclonal Antibodies and Controlled Drugs.

All fields should be fully completed in order to facilitate safe and efficient dispensing of medications from the Pharmacy Department.

All orders must be written on a pharmacy Medication Order Form. Orders should not be accepted over the telephone.

Chemotherapy should be ordered and supplied as per the OLCHC Cytotoxic Policy.

Dysport® (Clostridium botulinum toxin) must be ordered at least 48 hours in advance from the Pharmacy Department on the Dysport® ordering form by a member of the team caring for the child.

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Monoclonal antibodies are ordered from ACU. All monoclonal antibody orders must accompany a patient specific protocol signed by the consultant. The protocol should be sent to ACU 48 hours in advance of the infusion. Protocols are available on G:\ACU\MABS\protocols. Hard copies are available in ACU and on the Medical Day Unit.

10.5 Controlled Drugs in the Controlled Drugs Register

Controlled drugs are ordered using the Controlled Drugs Register (CHC 79). The procedure for ordering controlled drugs is outlined in section 12.

10.6 Out-patient clinics

The Pharmacy Department dispenses hydroxycarbamide for patients attending the Haemaglobinopathy clinic and antiretrovirals for patients attending the Rainbow clinic.

Patients attending the Haematology / Oncology Day Ward and patients attending the Acute Lymphoblastic Leukaemia Outpatient Clinic also require certain medications to be supplied by the Haematology / Oncology Pharmacist.

If patients are admitted to the hospital, the supply of medications previously dispensed from the Pharmacy Department in OLCHC should be brought with them to hospital.

10.7 Clinical trial medications

Patients enrolled in a clinical trial may be undergoing treatment with Investigational Medicinal Products (IMP). These medications may be dispensed from the OLCHC Pharmacy Department or by another pharmacy.

If a patient enrolled in a clinical trial is admitted to the hospital, their own supply of clinical trial medications should be brought to the hospital with the patient. In the case of a licensed drug being used as an IMP, the drugs may be taken from hospital stock. There are regulations in place regarding the management of certain drugs that are considered IMPs. The Clinical Trials Pharmacist may be contacted for advice.

Patients enrolled in a clinical trial will normally have written information relating to the name of the study, name of Principal Investigator, treatment they are potentially receiving and contact information for research staff.

The Principal Investigator or research staff should be contacted as soon as possible when a patient has been admitted to the hospital. Any hospital admission needs to be reported as a serious adverse event to the Sponsor of the trial within 24 hours.

If the trial medications are dispensed by OLCHC pharmacy then the protocol for the specific trial will be located in the trial-specific folder located in the Medicines Information Office of the Pharmacy Department and should be consulted for further guidance.

Treatment protocols for haematology/oncology clinical trials are available on the hospital intranet. http://olchcnet.hse.ie/Departments/Haematology%20Oncology/Malignant%20Haematology%20Oncology/

If the trial medications are dispensed by a different pharmacy, it is important to consult the Principal Investigator or research staff for dosing information, prohibited medications and storage instructions.

Clinical trial medications and empty packaging must be kept and returned to the patient upon discharge to allow for accountability to be completed by the Clinical Trials pharmacist or relevant staff member.

10.8 Medications with special ordering Requirements

10.8.1 Restricted Antimicrobials

Certain antimicrobials are **restricted for use** at OLCHC. They will only be dispensed from the Pharmacy if approval from an Infectious Diseases or a Microbiology consultant has been granted.

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10.8.2 High Risk Medications

Refer to *OLCHC High Risk Medicines List* http://olchcnet.hse.ie/Medication%20Safety/Medication_Safety_Alerts/High_Risk_Medicines_Alert_Poster_2016.pdf

Local Anaesthetic Infusions for Epidural/Nerve Block

Levobupivicaine 1.25mg/mL Infusion 100mL must be ordered using the CD register.

Heparin Sodium

- Supply of Heparin Sodium 1000 unit/mL (5mL) is routinely supplied to Theatre, ICU, CHC and the Haematology Unit. All other clinical areas must order as required.
- Supply of Heparin Sodium 5000 unit/mL (5mL) (with preservative) is restricted to Cardiac and Orthopaedic Theatres.
- Supply of Heparin Sodium 5000 unit/mL (1mL) (preservative free) is restricted to the haematology team for Bone Marrow Harvesting. It is stored in ACU and must be collected immediately prior to the procedure.

Potassium Chloride and other concentrated potassium containing injections

- Concentrated Potassium Chloride Injection (10mL miniplasco) 20mmol/10mL must be ordered using the Controlled Drugs register.
- Potassium Phosphate Injection (20mL miniplasco) (Each mL contains 0.6mmol phosphate and 1mmol potassium) must be ordered using the Controlled Drugs register.
- Potassium Chloride 20mmol in Sodium Chloride 0.9% w/v (100mL) is supplied for use in PICU only. These must be collected directly from the Pharmacy Department by the PICU HCA.
- Cardioplegia Solution Premixed Infusion 500mL must be ordered by and collected from the pharmacy by perfusionists.

Hypotonic and Hypertonic Infusion Fluids

- 0.45% w/v Sodium Chloride is issued from the Pharmacy on a named patient basis.
- 0.18% w/v Sodium Chloride & Glucose 4% w/v is restricted to PICU 1 and Nephrology/Urology Ward.
- Sodium Chloride 3% w/v is restricted to PICU 1.
- Sodium Chloride 30% w/v is restricted to PICU 1 and Nephrology/Urology Ward.

10.9 Transport and receipt of medications

Medications are delivered to clinical areas at set times.

Medications required outside scheduled delivery times must be collected from the Pharmacy Department by a nurse, student nurse, or health care assistant.

If a patient is transferred from on clinical area to another, <u>non-stock medicines issued for that patient</u> should be transferred with the patient in a sealed bag.

All stock, except bulk fluids should be transported to clinical areas in tamper evident pharmacy boxes/bags or by using a locked trolley.

Following delivery to the ward, pharmacy boxes should be emptied as soon as possible as they may contain items requiring refrigeration.

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Pharmacy boxes may be emptied and medications stored by appropriately trained healthcare assistants if delegated to do so by the ward manager.

10.10 Supply of medications outside normal pharmacy opening hours

Patients admitted outside of Pharmacy Department opening hours may be administered their own medication as per section 9.9.

During Pharmacy Department opening hours, medications should not be borrowed from other wards.

If a medication is required outside Pharmacy Department opening hours, an attempt should be made in the first instance to obtain the medication from another clinical area with the exception of Controlled Drugs (CDs) and high concentration potassium containing injection / infusions which **must not** be transferred between clinical areas.

A 'Pharmacy out of hours requisition / Medication transfer form' (available on H-drive) must be used to obtain medicines from another clinical area. The medication and quantity supplied, the name and HCRN of the patient for whom it is required must written on the form. The form must be signed for by a staff nurse requesting the medication and by staff nurse on the ward supplying the medication.

The completed 'Pharmacy out of hours requisition / Medication transfer form' must be sent to the Pharmacy on the next working day for follow up.

If there is an emergency requirement for a controlled drug or concentrated potassium injection outside Pharmacy opening hours, transfer of the controlled drug from another one clinical area to another must only be done by the Nursing Administration Site Manager.

If the medication cannot be located in another clinical area, the Nursing Administration Site Manager should be contacted to arrange to obtain the medication from Pharmacy Department using the 'Pharmacy out of hours requisition form'. All details of any medication taken must be recorded in the Pharmacy Department to allow for follow up.

If a medication is urgently required and unavailable in the hospital, Nursing Administration must arrange for the medication to be borrowed from another hospital.

10.11 Transferring medication to another hospital

Medications should not be sent routinely with patients who are transferring to another hospital. On rare occasions (e.g. Exempt (unlicensed) medications) it may be necessary to loan another hospital pharmacy department a medication while they organise their own supply. This should be coordinated via the OLCHC Pharmacy Department.

10.12 Discharge Medication

General

Our Lady's Children's Hospital Crumlin does not routinely dispense discharge medication except where necessary to maintain supply in exceptional circumstances. (see below)

Most medications are readily available through community pharmacies. The Pharmacy Department can be contacted to confirm if a particular medication is available in the community. Resources permitting, the clinical pharmacist should clinically screen every discharge prescription during normal working hours. The clinical pharmacist will liaise with the patient's local pharmacy where necessary to ensure continuity of supply. To facilitate this, discharge prescriptions should be written one day in advance of discharge where possible.

Parents should be encouraged to bring the discharge prescription to their usual community pharmacy as soon as possible (in advance where possible) so that the required medication can be ordered.

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No patient should be discharged without ensuring that any prescription problems have been resolved. Contact the Pharmacy Department if difficulties arise.

Nurses **should not** dispense medications to patients from ward stocks. This includes drawing up a dose of liquid medication in a syringe for parents to take out of the hospital and administer to their child at a later stage.

<u>In exceptional circumstances</u>, a doctor may issue sufficient supply of medications from ward stocks to patients on discharge. The medications should be dispensed in accordance with a written prescription and clearly labelled with the dosing and administration directions. This must be checked by two registered nurses prior to issue by the **doctor**.

All parents/carers should be given verbal and where necessary written advice by the clinical pharmacist, medical or nursing staff regarding their medications.

Medications issued by the Pharmacy Department on discharge

Exempt (unauthorised/unlicensed) Medications

http://olchcnet.hse.ie/Medicines Information /Unlicensed Medicines/Unlicensed Medicines.pdf

and extemporaneously prepared medications

http://olchcnet.hse.ie/Medicines_Information_/Medication_Policy_/Extemporaneously_Prepared_Medications_I ist.pdf

may not be readily available in community pharmacies.

Where necessary, an interim supply will be dispensed from the OLCHC Pharmacy Department. The Clinical Pharmacist or Pharmacy Department should be contacted to organise supply.

Other medications

Parents of children being discharged on any other medications can obtain a supply by bringing their OLCHC discharge prescription to any community pharmacy. In order for a community pharmacy to dispense a hospital prescription free of charge to a GMS patient, the prescription must be dispensed within 24 hours of being written. In this instance a patient will receive one weeks supply only and must attend the General Practitioner to procure a GMS prescription for dispensing the remainder of the supply.

Certain high cost medications need to be prescribed on a 'High Tech' prescription for discharge. Hi-Tech prescriptions are available from the Pharmacy Department. Refer to 'High Tech Medicines List' http://olchcnet.hse.ie/Medicines Information /Medication Policy /High Tech Medicines list.pdf

Supply of pre-packs for discharge from the Emergency Department

Medical practitioners may issue pre-packs, which have been labelled and prepared by the Pharmacy Department e.g. ciprofloxacin tablets for chemoprophylaxis of meningococcal disease, Child Sexual Assault (CSA) kits

- The pre-pack may only be issued against a written prescription.
- The pre-pack must be marked by the person issuing it, with the date, dose and patients name.
- Record of the issue is made in the patient's Emergency Department chart.
- Dispensing must be checked with a second individual (nurse/doctor)

11.0 Storage of Medications

11.1 General

The safe and secure storage of medication in each clinical area is the responsibility of all nursing staff and is ultimately the responsibility of the Clinical Nurse Manager.

Medications must be stored in their correct locations in a manner that maximises medication safety. Incorrect locations can lead to potential medication administration errors, excess stock, difficulty locating medications and delays in medication administration.

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Intravenous fluids, dialysis fluids, and other sterile fluids must be stored in designated areas in lockable medication rooms. Flexible bags of Water for Irrigation must be stored separately from intravenous fluids.

Medications should be stored separately from disinfectants and antiseptics.

Medication for external use (e.g. creams, lotions, eye drops) must be stored in a locked cupboard and must be segregated from medication for internal use.

Medications for intrathecal, intraventricular and epidural use must be stored separately in locked presses or in a fridge as appropriate.

Medications must be stored generically and alphabetically. Locally agreed procedures to separate medications with similar names or packaging (Sound Alike Look Alike medications) should be followed.

Medications must be stored according to manufacturer's instructions to ensure that their quality is maintained. All injections must be stored in their original packs, or in Pharmacy Department issued white boxes labelled with the name, form and strength of medication, the batch number and expiry date to protect from light and to reduce the risk of selection error.

Medication should not be removed from the packaging/container supplied by the Pharmacy Department or transferred from one container to another.

Blister cards of tablets must be stored either in their original packs or in white Pharmacy Department issues boxes, labelled with the batch numbers and expiry dates of the drugs. Blister cards must never be cut, as to do so could mean the loss of essential information printed on the foil backing the card.

All stock must be rotated. Particular attention should be paid to intravenous fluids and dialysis fluids.

Tablet crushers and splitters are available in all clinical areas. After each use, these should be washed in warm soapy water, dried and returned to a designated storage area.

Patients own medications should be stored as per section 9.9.

All discharge medication should be stored in a specified area in the secure medication room or a locked press until the patient is about to be discharged.

11.2 Access to Medication

Medication / treatment rooms containing medication presses, medication fridges and medication trolleys must be kept locked at all times and access controlled by combination lock or swipe pad. The doors must be kept closed at all times. It is unacceptable to keep the room door propped open at any stage.

Combination codes and swipe access must be restricted to staff with legitimate reason to access medication rooms and there must be a local process in place to ensure codes are changed at regular intervals.

Medications must be stored in locked cupboards, secured locked medication trolleys, lockable anaesthetic trolleys and where specified, in locked refrigerators or freezers designed specifically for the storage of medications.

Medication trolleys must be kept locked at all times, and chained to an immovable object, e.g. bolted to the wall. The trolley should only be removed from this anchoring when medication rounds are being undertaken. Nursing staff should ensure that only oral medications (excluding Controlled Drugs) in current use are stored in this trolley. No medication should be stored on the open shelf of the trolley.

Resuscitation trolleys should be kept on the ward corridors and must be kept sealed at all times. The resuscitation trolley contents and emergency medicine supply should be recorded on the checking sheet as per the Resuscitation Team.

The Allergy Clinical Nurse Specialist team or other allergy team member who conducts food or drug challenges is responsible for the direct supervision of a lockable anaphylaxis kit when brought to a clinical area. When not in use by the Allergy team, the kit must be kept with in a locked press in a treatment room.

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The keys for the medication trolley and the cupboards must be kept on the person of the Clinical Nurse Manager or their deputy at all times (must be a registered staff nurse). A set of keys should be kept in the Nursing Administration office.

The Controlled Drugs keys should be separated from other keys. The key for the inner cupboard should be kept separately on the person of the Clinical Nurse Manager or deputy. At no stage should the two sets of keys be put together.

Under no circumstances should keys for the Controlled Drugs safe, or the medication trolley or medication cupboards be kept in any public area or in a key cupboard.

Any incidents involving a breach of security that causes potential or actual loss or theft of medications must be investigated and corrective and preventative action taken. This may involve contacting the An Garda Síochána.

11.3 Missing Medication

If medications are missing from a clinical area, Nursing Administration and the Chief Pharmacist should be immediately informed, an incident report completed and An Garda Síochána notified if appropriate.

11.4 Missing keys

The following procedure must be followed if keys for the fridge, medication trolley or Controlled Drugs cupboard are missing.

- An extensive search must take place in the clinical area to ensure that the keys have not been mislaid.
- If the keys are not found, any staff member who has recently gone off duty must be contacted to check if they have taken the keys in error. If the keys have been taken in error and there is a spare set available, these keys can be used in the interim. Keys should be returned as soon as possible. If there is not a spare set or the member of staff is not back on duty within one day the keys must be returned to the hospital immediately.
- If the keys are not found with a member of staff they should be reported as lost to Nursing Administration and the Pharmacy Department immediately.
- The Technical Services Department must be contacted to fit new locks immediately. Until replacement locks are fitted, the clinical area may use the spare keys (if available).
- Once the locks have been replaced a new spare set of keys should be returned to Nursing Administration.
- An incident form must always be completed in the event of missing keys
- It is every staff member's duty to ensure that the keys are in the safe keeping of the Clinical Nurse Manager or deputy at all times.

11.5 Storage of refrigerated medication

Medication fridges must be fitted with a maximum – minimum thermometer. Fridge temperatures must be maintained between 2 and 8 degrees centigrade and must be monitored every 24 hours. This is the responsibility of the manager of the clinical area or their delegate. Deviations of temperature outside this range should be reported to the Pharmacy Department as soon as possible. Laboratory specimens and food must not be stored in the medication fridge.

Fridges used for the storage of vaccines must have fan assisted air circulation, have no more than 50% of internal volume filled, have a calibrated MAX/MIN thermometer and an audible temperature alarm in place.

11.6 Storage of High Risk Medications

11.6.1 Local Anaesthetic Infusions for Epidural/Nerve Block

Levobupivicaine 1.25mg/mL 100mL must be stored in the outer part of the Controlled Drugs press.

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11.6.2 Heparin Sodium

Heparin Sodium 5000 unit/mL (1mL) (preservative free) is collected from ACU prior to procedure. All ampoules signed out of the register in ACU (whether used or not) must be returned immediately following the procedure.

Heparin Sodium 5000unit/mL (5mL) (with preservative) must be stored in the outer part of the Controlled Drugs Press in the Cardiac and Orthopaedic Theatres.

11.6.3 Potassium Chloride

The following concentrated potassium containing injections must be stored in the Controlled Drugs press and running balances recorded in the Controlled Drugs Register.

- Concentrated Potassium Chloride Injection (10mL miniplasco) 20mmol/10mL
- Potassium Phosphate Injection (20mL miniplasco) (Each mL contains 0.6mmol phosphate and 1mmol potassium)

Potassium Chloride and Potassium Phosphate Injection (Miniplascos) must always be stored in their original pack i.e. they must not be transferred into different containers or left loose in medicine rooms or trolleys.

Potassium Chloride 20mmol in Sodium Chloride 0.9%w/v (100mL) must be stored in a separate location, away from other IV fluids in the PICU medication room.

Cardioplegia Solution Premixed Infusion 500mL must be stored in Theatre in locked segregated storage, accessible only by perfusionists.

11.6.4 Hypotonic and Hypertonic Infusion Fluids

All Hypotonic and Hypertonic infusion fluids should be stored separately from other fluids.

11.6.5 Cytotoxic Medications

See Section 18

11.7 Expiry Dates

Certain intravenous preparations contain bactericides and are clearly marked as multi-dose. The date of opening should be marked on the vial and the preparation discarded in line with the expiry time-frame as specified by the Pharmacy Department on preparation.

Multi-dose vials must only be used for a single patient and must be assigned to individual patients (one patient-one vial) and labelled using the supply of flag labels available at ward level.

All eye drop preparations (except unit dose eye drops) must be dated and labelled with patient name, date of opening, and which eye it is for, and used for 7 days only. They should not be shared between children. A separate eye preparation must be used for each eye.

Suspensions/solutions when reconstituted must be dated and stored appropriately (at room temperature or refrigerated) for the appropriate time period as stated on the label.

All oral liquids once opened must be marked with the date of opening. They should not be used after six months from the date of opening or as specified on the date of opening sticker. Certain medications have a reduced shelf life when opened.

http://olchcnet.hse.ie/Medicines_Information_/Medication_Policy_/Medication_In_Use_-_Expiry_Dates.pdf

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Short-dated stock should be stored to the front of medication cupboards or returned to the Pharmacy Department prior to expiry if they are unlikely to be used on the ward before this time.

11.8 Expired Medications

Expired and short dated medications that are no longer required should be returned to the Pharmacy Department for disposal in accordance with the hospital's 'Waste Management Policy'. (http://olchcnet.hse.ie/Policies, Guidelines, Protocols SOP's/Policies A - Z/Waste Management Policy 2014.pdf)

Expired Controlled Drugs (CDs) must be returned to the Pharmacy Department by a registered staff nurse together with the clinical area's Controlled Drugs register (see section 12.6).

11.9 Medication Security and Closure of a clinical area

Weekend closure

- All medications may be left in the locked medication presses
- A Controlled Drugs balance check must be performed both at the time of closing and when the area reopens.

Temporary closure (up to 2 weeks)

 As per weekend closure above, except Controlled Drugs must be returned in a sealed box to the Pharmacy Department.

Long term closure (2 weeks or more)

 All medications must be returned to the Pharmacy Department. Controlled Drugs must be recorded in the ward register as 'returned to pharmacy'. A pharmacist and a registered nurse entitled to check administration of Controlled Drugs must sign the register.

11.10 Control of Stationery

Prescription pads are issued by the Materials Management department. Serial numbers of prescription pads are tracked. Prescription pads must be locked away when not in use. Prescription pads must not be stored in a general store room.

It is responsibility of **all staff** to ensure that prescription pads are not left unattended in rooms accessible by unauthorised staff or the public.

Controlled Drugs prescription pads are stored in the Pharmacy Department and issued only to Palliative Care Consultants, Acute Pain Services Consultants and St. John's Ward. All other clinicians must come to the Pharmacy Department to write a Controlled Drugs prescription.

Controlled Drugs Registers (CHC79) are issued from the Materials Management department.

Medication requisition forms, Dysport® requisition forms and Monoclonal Antibody order forms are available on the H Drive

Kardexes are issued by the Materials Management Department.

High Tech prescription books are obtained from the Pharmacy Department.

Vaccine record forms are issued by the Materials Management department. Completed forms are collected from clinical areas by a HSE representative once weekly. Completed forms may be stored in a designated folder in specific clinical areas (Emergency Department, Transitional Care Unit, Nazareth and St. Peters) or should be returned to the Pharmacy Department as soon as possible.

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11.11 Location of Medication Rooms/ Refurbishment

Medication rooms should be located centrally in clinical areas where possible.

The Pharmacy Department should always be involved in the planning of any refurbishment of medication rooms. Any change to medication storage arrangements in clinical areas should be discussed with the Pharmacy Department in advance.

12.0 Controlled Drugs (CDs)

12.1 General

The Misuse of Drugs Regulations, 1977 and amendments aim to prevent the unlawful use of medications liable to produce dependence or cause harm if misused. They also regulate the various professional activities associated with such substances. Medications affected by this Act are referred to as "Controlled Drugs" (CDs). The Misuse of Drugs Regulations classify CDs into schedules with different controls applying to each.

Schedule 1: (Controlled Drugs 1) CD1

Substances in this schedule include coca leaf, raw opium, cannabis and the major hallucinogenic drugs e.g. LSD, psilocin. A special licence is required for any activity in respect of these drugs. They have little therapeutic value, but a strong potential for abuse.

Schedule 2: (Controlled Drugs 2) CD2

Includes opioids such as morphine and heroin, major stimulants like the amphetamines and synthetic narcotics such as oxycodone, fentanyl and pethidine. Methylphenidate is also included in this schedule. Controlled Drugs prescription requirements, strict record keeping (Controlled Drugs register) and safe custody storage requirements (i.e. must be stored in a Controlled Drugs press) apply in full. Stringent rules must be adhered to for obtaining, storing and administration of these medications by hospital staff. The destruction of these medications must be witnessed by an appropriately authorised person.

Schedule 3: (Controlled Drugs 3) CD3

Less stringent controls apply to medications included under this schedule e.g. barbiturates, some potent analgesics and minor stimulants. Ketamine and temazepam are included in this schedule. Controlled drug prescription and safe custody requirements (i.e. must be stored in a Controlled Drugs press) apply to all CD3 drugs but there is no requirement to maintain a CD register or for witnessed destruction of these drugs. Ketamine is treated as CD2 in OLCHC.

Schedule 4: (Controlled Drugs 4) CD4

This includes most benzodiazepines e.g. diazepam, clonazepam, midazolam and phenobarbitone tablets. Control of these medications under the Misuse of Drugs Regulations is minimal. There is no need to store these medications in a Controlled Drugs press or to record their use in a Controlled Drugs register.

Schedule 5: (Controlled Drugs 5) CD5

This includes preparations that contain only very small quantities of controlled drugs and are thus exempt from most restrictions under the Regulations e.g. Phenobarbitone 60mg Injection, Oramorph© Liquid 2mg/mL (less than 0.2% morphine)

Note: As Oramorph© Liquid 2mg/mL is a CD 5 it may be prescribed on a general prescription pad (non – Controlled Drug) for patient discharge. Within OLCHC it is treated as CD2 for ordering and stock control purposes.

Schedule 8 (Controlled Drugs 8) CD8

Schedule 8 lists the medications that can be prescribed by a registered nurse prescriber within Schedules 2 and 3. Refer to 'OLCHC Nurse Prescribing Policy'.

http://olchcnet.hse.ie/Nurse_Practice_Development_Unit_/Guidelines/Nurse_Prescribing_in_OLCHC_2015.pd f

The Ward Manager is responsible at ward level for medications controlled under the Misuse of Drugs Act.

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12.2 Ordering Controlled Drugs

The Clinical Nurse Manager, or his/her deputy, must sign a written requisition in the CD Register/Requisition Book with medication name, strength, quantity and date.

All white copies of CD requisitions should be delivered to the Pharmacy Department in the morning. This is to allow Pharmacy Department staff sufficient time to dispense the medications.

A registered staff nurse must come in person to the Pharmacy Department to collect CDs with the clinical area's Register/Requisition Book

The CD requisition page number should be included on the Pharmacy Department generated label placed on the dispensed medication.

Both the nurse and pharmacist should check and count tablets/ampoules or confirm liquid volume and check the expiry date.

Both the nurse and pharmacist must sign and date the requisition form.

On return to the clinical area the CNM or deputy must sign the 'received by' section of the CD Register/Requisition book.

The White copy of the CD requisition form should be retained in pharmacy.

The CD Register/Requisition book must be retained on the ward for two years from the date of last entry.

12.3 Storage of Controlled Drugs

All CDs must be kept in an approved locked press attached to the wall, as specified under the Misuse of Drugs Act, 1977 and subsequent amendments.

The keys for this press must be kept on the person of the Clinical Nurse Manager or his/her deputy. These keys must be kept separate from any other keys for the ward.

Balance checks should be carried out at every shift change. Any discrepancies must be actioned and reported immediately.

Each balance check must be signed by two registered nurses and recorded on the 'record of balance' checks book.

Access to the controlled medicine cupboard is only permitted by the following persons:

- Two Registered Nurses
- A Registered Nurse and a Doctor
- A Registered Nurse and a Pharmacist.

12.4 Storage and use of Patients own Controlled Drugs

Where possible patient's own CDs should be immediately returned to a parent to bring home and stock obtained from the Pharmacy Department. If it is necessary to use a patient's own medications or if the parent is not going home immediately, nursing staff should assign a new page in the CD Register/Requisition book to each medication and the medication should be handled accordingly. Nursing staff must ensure that the medication is only given to the child to whom it belongs. Two staff nurses must witness and document the return of patient's own CDs to the parent.

12.5 Administration of Controlled Drugs

Two healthcare professionals (either two registered nurses or one registered nurse and a medical practitioner-HDNS student nurses and BSc Intern student nurses may also be second checker with a registered nurse for controlled drugs) must carry out the administration of controlled medications using the following procedure: (Exception: anaesthetists working in theatre – see Section 20.2)

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- Select the correct medicine from the controlled medicine press.
- Check the stock balance of the medicine against the last entry in the CD Register/Requisition book.
- Check the appropriate dose against the prescription.
- Return the remaining stock to the press and lock the press.
- Calculate the amount of medicine required. Draw up the amount of medicine required / count the required number of tablets.
- Discard excess medication by placing it in the sharps bin (this must be witnessed by both healthcare professionals). Disposal of excess medication must be witnessed in all clinical areas without exception.
- Record any amount discarded in the CD Register/Requisition book.
- Enter the date, patient's name, dose and stock balance in the CD Register/Requisition book.
- Both healthcare professionals go to the patient's bedside with the prepared medication.
- Both healthcare professionals check the prescription sheet once again and confirm they have the
 correct medication and dosage and that the prescription is valid for that patient. Both healthcare
 professionals must check the patient's name, date of birth and hospital number.
- Both healthcare professionals sign the prescription sheet and the CD Register/Requisition book as soon as the medication has been administered.
- Remnants of any infusions or syringe drivers that are to be discarded must be recorded in the Register
 next to the entry detailing the preparation of the infusion or syringe. In any instance where the item
 was prepared and entered out of the Register in another clinical area the disposal is to be recorded on
 a separate page in the Register. The documentation is to be signed by the two healthcare
 professionals who also witness the discarding.
- Remnants of any infusions or syringe drivers must be discarded by injecting onto paper towel and disposing of all components in a sharps bin.

12.6 Returning Controlled Drugs to the Pharmacy Department

Clinical areas may return unwanted CDs to the Pharmacy Department using the following procedures:

- a) Return of CDs that have **not** expired.
 - The appropriate form must be completed in the Pharmacy Department and signed by the pharmacist and the staff nurse.
 - The pharmacist should count or measure the actual quantity / volume of the drug which is being returned and this should be witnessed by the nurse who has returned it.
 - The clinical area's CD Register/Requisition book must also be signed and dated by the pharmacist and staff nurse on the relevant page to show that the medications have been returned to the Pharmacy Department.
 - The pharmacist then credits these medications to the ward.
- b) Return of CDs that **have** expired on the ward.
 - The appropriate form must be completed in the Pharmacy Department and signed by the staff nurse and the pharmacist.
 - The Pharmacist should count or measure the actual quantity / volume of the drug which is being returned and this should be witnessed by the nurse who has returned it.
 - The clinical area's CD Register/Requisition book is signed on the relevant pages by the pharmacist and staff nurse to show that expired controlled medications have been returned to the Pharmacy Department.
- c) Return of patient's own CDs either expired or not expired.

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 The appropriate form must be completed in the Pharmacy Department and signed by the staff nurse and the pharmacist.

12.7 Transfer of Records

Occasionally it is necessary to transfer the record of a CD from one page of the CD Register/Requisition book to a new page. This can happen when the end of the recording page is reached but there is still medication left, for example with liquid preparations. Similarly, transfer will be required when a medication is seldom used and a new CD Register/Requisition book is now in use. In this situation the medication is transferred as follows:

- All medication details are written on the new page, clearly stating the quantity transferred.
- The page from which the medication is transferred is recorded on the new page.
- The old page is marked off; clearly stating to what page the medication has been transferred.
- The Clinical Nurse Manager and one registered staff nurse sign both the new page and the old page.
- The Clinical Pharmacist can assist in the transfer of CDs when requested.

12.8 CD Discrepancies

Any discrepancies between the balance recorded in the CD Register/Requisition book and the stock balance in the CD press must be immediately brought to the attention of the ward manager and the Chief Pharmacist and a medication incident report completed. An Garda Síochána may be notified at the discretion of the Chief Pharmacist and the Director of Nursing.

Management of Controlled Drugs in the Emergency Department (see section 20.1)

12.10 Management of Controlled Drugs in Operating Theatres (see section 20.2)

12.11 Management of Controlled Drugs in the Radiology Department (see section 20.3)

13.0 Unauthorised (Exempt) Medications (Previously referred to as Unlicensed Medications) and Off Label Prescribing

Unauthorised medicinal products are those which do not have a product authorisation (product license) for use in Ireland, and have not been assessed by the HPRA against the criteria of safety, quality and efficacy.

Medical practitioners may prescribe unauthorised medicinal products for individual patients under their direct responsibility, in order to fulfil the special needs of those patients. Such products are defined as "exempt medicinal products"

Unauthorised medications should be prescribed for patients only when there is no suitable authorised (licensed) alternative.

The Clinical Indemnity Scheme (CIS) cover applies equally to the prescription and use of authorised and unauthorised medications (including the use of authorised medicinal products prescribed for an unauthorised indication i.e. Off-Label Prescribing) provided that the latter are used with the express knowledge and consent of the hospital's management via the D&T Committee. Refer to Statement on the use of unauthorised (exempt) and authorised medicines prescribed for an unauthorised indication (off-label). http://olchcnet.hse.ie/Medicines_Information_/Medication_Policy_/CIS_Statement_on_Unauthorised_Medications.pdf

Doctors who prescribe an unauthorised medication should do so knowing the licence status of the product.

RNPs may not prescribe unauthorised medicinal products.

Patients should have access to information about unauthorised medicinal products.

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A schedule of commonly used Exempt (unlicensed) medications approved for use by the Drugs and Therapeutics Committee is regularly updated and is available on the hospital intranet. Refer to 'Unauthorised (Exempt) Medicines List'.

http://olchcnet.hse.ie/Medicines_Information_/Unlicensed_Medicines/Unlicensed_Medicines.pdf

An "unlicensed medicine" label should be attached to all unauthorised medications in order to highlight the medication's license status to all staff.

All staff who are authorised to administer and/or check the administration of medications may also administer and/or check the administration of unauthorised medications. For the purpose of administration, there is no distinction between authorised and unauthorised medications.

14.0 High Risk Medications

High risk medications are those likely to cause injury or death if they are inadvertently misused or administered incorrectly. Errors with these medications may or may not be more common than others but the consequences can be more devastating to patients.

OLCHC has a High Risk Medications list, the purpose of which is to define which medications are considered to be high-risk in OLCHC, and to address and reduce the risks associated with the prescribing, dispensing, storage and administering of these medications.

The OLCHC High Risk Medications List is based on the Institute for Safe Medicine Practices (ISMP) high risk medication list (2014) in combination with a review of OLCHC specific risks identified through the hospital's incident reporting system.

The Medication Safety Committee in communication with the D&TC will review the hospital's high risk medications list every two years or as deemed necessary by either committee.

The OLCHC High Risk Medications List includes the medications and groups of medications listed below. The acronym APINCH is used to group into categories to facilitate education and to raise awareness of high risk medications.

http://olchcnet.hse.ie/Medication%20Safety/Medication_Safety_Alerts/High_Risk_Medicines_Alert_Poster_2016.pdf

- · Anticoagulants and anti-thrombotics
 - Heparin (unfractionated) injection
 - Low molecular weight heparins
 - Warfarin
 - Alteplase
 - Urokinase
- Potassium containing injections and infusions (concentrated)
 - Potassium Chloride injection 20mmol/10mL
 - Potassium Chloride for infusion 20mmol/100mL
 - Potassium phosphate for injection (potassium 20mmol/20mL)
- Paracetamol Intravenous
- Insulins
- Neuromuscular Blocking agents
- Opioids (<u>n</u>arcotics) and sedative agents
- Cytotoxic agents
- Hypertonic sodium chloride
 - Sodium Chloride 30% w/v injection
 - Sodium Chloride 3% w/v infusion
- Hypotonic IV fluids
 - Sodium Chloride 0.45% w/v
 - Sodium Chloride 0.18% w/v with Glucose 4% w/v (Solution 18)

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Sodium Chloride 0.45% w/v with Glucose 2.5% w/v or 5% w/v

Intrathecal, epidural administration of medicines and the use of local anaesthetic infusion for nerve blocks are considered as a high risk use of medicine and is included on the high risk medicines list.

High risk medications have special ordering and storage requirements - see Section 10.8.2 and 11.6

15.0 Hazardous Medications

See Hazardous Medications
http://olchcnet.hse.ie/Policies, Guidelines, Protocols SOP's/SOP's Protocols A - Z/Safe Handling of Hazardous Drugs.pdf

16.0 Adverse Drug Reactions (ADRs)

An adverse drug reaction (ADR) is defined as a reaction which is noxious and unintended and which occurs at doses normally used in man for the prophylaxis, diagnosis and treatment of disease or for the modification of physiological function. (This definition excludes accidental or deliberate excessive dosage or maladministration).

There is limited information available on the use of many medications in the paediatric population. Therefore it is particularly important that adverse reactions to medications in children are detected and reported. This should be actively promoted throughout the hospital.

All Healthcare Professionals should report adverse reactions.

What adverse reactions to report

All suspected reactions should be reported (i.e. any adverse or any unexpected event, however minor, which could conceivably be attributed to the medication). Reports should be made despite uncertainty about a causal relationship, irrespective of whether the reaction is well recognised and even if other medications have been given concurrently.

This includes medications under additional monitoring by the European Medicines Agency (EMA) which have a black inverted triangle displayed in their package leaflet and in their summary of product characteristics (SPC).

'Black triangle' medications in the OLCHC Hospital Formulary have an inverted black triangle symbol ▼ in the dosing section of the monograph. The most recent list of medications under additional monitoring may be accessed on the EMA website by clicking 'Black triangle list'.

How to report adverse drug reactions

- 1. Yellow prepaid lettercards for reporting are produced by the HPRA. These are available from the Pharmacy Department. Completed "yellow cards" should be sent to the Pharmacy Department for recording purposes prior to being sent to the HPRA.
- 2. Online by opening the HPRA home page (www.hpra.ie) and clicking on 'Report an issue' icon or by clicking on the link https://www.hpra.ie/homepage/about-us/report-an-issue/human-adverse-reaction-form. The report may be made directly on line or a report may be downloaded and emailed or posted to the HPRA.
- 3. By telephone to the HPRA Pharmacovigilance section (01-6764971)

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A copy of all reports sent to the HPRA should be sent to the OLCHC Pharmacy Department for recording and monitoring purposes. The reporting procedure is monitored by the Pharmacy Department and feedback given to the Drugs and Therapeutics Committee on a six-monthly basis.

All adverse drug reactions should also be reported on the OLCHC incident management system as a medication safety incident.

17.0 Medication Safety Incidents

A Medication Safety Incident (Medication Error) is defined as any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the healthcare professional, patient, or consumer. Such events may be related to professional practice, healthcare products, procedures, and systems, including prescribing, order communication, product labelling, packaging, and nomenclature, compounding, dispensing, distribution, administration, education, monitoring, and use.

All staff are responsible for Medication Safety.

All Medication Incidents including 'near-miss' events must be reported via the hospital's online Incident/Complaint reporting system as per the HSE's Safety Incident Management Policy http://www.hse.ie/eng/about/Who/qualityandpatientsafety/incidentrisk/Riskmanagement/SafetyIncidentMgtPolicy2014.pdf

18.0 Cytotoxic Policy

http://olchcnet.hse.ie/Policies, Guidelines, Protocols SOP's/Policies A - Z/Cytotoxic Policy.pdf

19.0 Total Parenteral Nutrition

See Parenteral Nutrition Guideline http://olchcnet.hse.ie/Policies, Guidelines, Protocols SOP's/Guidelines A-Z/Parenteral_Nutrition_Guidelines.pdf

20.0 Medications in specialised areas

20.1 Emergency Department

20.2 Operating Theatres

20.3 Radiology Department

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Appendix1. Reference Guide for Nursing in OLCHC

	Student	Oral / NG / NJ / PR / PEG / JEJUNAL	Topical / Eye/ Ear medications/ Transdermal patches	Inhaled	Injections:- - Intramuscular - Subcutaneous	IV Medications via a peripheral cannula (incl IV Flushes, Fluids & TPN)	IV Medications via Central Venous Access Device	Controlled Drugs / MDA	Epidurals
	RGN/RCN	Check and administer	Check and administer	Check and administer	Check and administer	Check and administer – once IV policy complete	Check and administer	Check and administer	
	Pre-registered Staff Nurse	Second checker & may administer when checked with Registered Nurse	Second checker & may administer when checked with Registered Nurse	Second checker & may administer when checked with Registered Nurse	Second checker & may administer when checked with Registered Nurse	Second Checker but cannot administer	Second Checker but cannot administer	Second Checker	Observe
	Stage 1 C&G on first placement & All Seconded undergraduate students	Observe	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered Nurse	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered Nurse	Observe	Observe	Observe	Observe	Observe
	Stage 1 C&G on 2 nd placement & Stage 2 C&G	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered Nurse	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered Nurse	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered Nurse	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered Nurse	Observe	Observe	Observe	Observe
Students	Stage 3 C&G	Observe and administer under direct supervision when checked by 2 registered nurses. is at the discretion of the Registered Nurse	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered Nurse	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered Nurse	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered Nurse	Observe	Observe	Observe	Observe
Supernumerary	Stage 4 C&G	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered Nurse	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered Nurse	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered Nurse	Observe and administer under direct supervision when checked by 2 registered nurses. This is at the discretion of the Registered	Observe	Observe	Observe	Observe
73.00	Internship C&G	Second checker & may administer when checked with Registered Nurse	Second checker & may administer when checked with Registered Nurse	Second checker & may administer when checked with Registered Nurse	Second checker & may administer when checked with Registered Nurse	Second Checker but cannot administer	Second Checker but cannot administer	Second Checker	Observe
Rostered Students	OLCHC HDNS & External HDNS on Shared Core Placement in OLCHC	Second checker & may administer when checked with Registered Nurse	Second checker & may administer when checked with Registered Nurse	Second checker & may administer when checked with Registered Nurse	Second checker & may administer when checked with Registered Nurse	Second Checker but cannot administer	Second Checker but cannot administer	Second Checker	Observe

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Appendix 2 Medication Reference Guide for other staff who can administer medications in OLCHC

	Oral / NG / NJ / PR / PEG / JEJUNAL	Topical / Eye/ Ear medications/ Transdermal patches	Inhaled	Injections: Intramuscular - Subcutaneous	IV Medications via a peripheral cannula (incl IV Flushes, Fluids & TPN)	IV Medications via Central Venous Access Device	Controlled Drugs / MDA	Epidurals
Anaesthetist/Intensivi st	Check and administer	Check and administer	Check and administer	Check and administer	Check and administer	Check and administer	Check and administer	Check and administer
Consultant (other than Anaesthetist /Intensivist)	Check and administer	Check and administer	Check and administer (except anaesthetic vapours)	Check and administer	Check and administer	Check and administer	Check and administer	N/A
NCHD	Check and administer	Check and administer	Check and administer (except anaesthetic vapours)	Check and administer	Check and administer	Check and administer (needs to be competent in accessing the CVAD)	Check and administer (must be second checked with a RGN/RCN)	Check and administer (Anaesthetic NCHDs only
Radiographer	N/A	N/A	N/A	N/A	IV furosemide via a peripheral cannula (must be second checked with a doctor or RGN/RCN who has completed IV study day)	N/A	N/A	N/A
Perfusionist	N/A	N/A	N/A	N/A	N/A	Via Cardiopulmonary bypass machine under the supervision of Cardiothoracic surgeon /Anaesthetist according to Clinical Perfusionists Policy. (a second check required for all medicines administered in accordance with Clinical Perfusionists Policy)	y bypass machine under	N/A
Respiratory Technicians	N/A	N/A	Salbutamol MDI as part of PFT testing	N/A	N/A	N/A	N/A	N/A
ECG Technician in HCCL	N/A	N/A	N/A	N/A	N/A	Heparin Sodium 1unit/ml as part of pressure monitoring set. Must be checked with RGN/RCN	N/A	N/A

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