2.3

Management of Medication (MOM)

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Medication errors are one of the most common healthcare issues, with a number of preventable drug-related injuries occurring in hospitals each year. Medication errors are also among the most frequently reported types of adverse events. Medication management standards help hospitals support patient safety and improve the quality of care by creating a system for selecting, procuring, storing, ordering, transcribing, preparing, labelling,dispensing, administering and monitoring medications. The following standards are designed to reduce practice variations, errors and misuse; encourage monitoring of the efficiency, quality and safety of medication management processes; promote the use of evidence-based good practices; and standardize processes throughout the hospital.

STANDARD-8. MOM-1: POLICIES AND PROCEDURES EXIST FOR THE PRESCRIPTION OF MEDICATIONS.

IND.51 DOCUMENTED POLICIES AND PROCEDURES EXIST FOR THE PRESCRIPTION OF MEDICATIONS.

SOPs on Prescription of Medications

In HCEs, only Medical Doctors and Dental Surgeons are authorized for Prescription Writing in their own fields. The following need to be complied with;

i. Authorized Physicians and prescribers (registered with PMDC) should prescribe in Public and Private settings and drugs should only be administered against a **Written Order** of a Physician.

ii. Medicine prescribed by an outside medical doctor will not be administered in the hospital settings, except in case a patient is a long term old case of an illness and he is on maintenance therapy; these drugs can be administered in the hospital with the approval of the treating Consultant. Use of the patient's own medication should be discouraged on account of abundance of counterfeit medications in the market. The patient's own medications should only be dispensed if not in hospital formulary. These drugs must be inspected by the Pharmacy Department to ensure that these are still valid and not deteriorated.

iii. No drug will be administered to a patient without a valid prescription of the treating doctor. In an emergency when a consultant is contacted on the phone and the drug is prescribed by him, the medicine may be given to the patient under the signature of the locally available treating doctor and this should be authenticated by the Prescribing Consultant within 24 hrs.

iv. The HCE should have a mechanism to oversee all drug related activities i.e. the HCE should have a multidisciplinary group or committee consisting of senior physicians from all major clinical disciplines, pharmacists and nurses; it could be called "**Drug Committee**", "**Pharmacy and Therapeutic Committee**"or"**Formulary Committee**". It should oversee all activities related to medications in the hospital e.g.,
    a. How medication orders/prescriptions must be written, including where they must be written in: the in-patient record or on an outpatient form.
    b. Which staff can prescribe and which staff can administer medicines. The policy should also inform what is to be done when the order or prescription is not accepted because of confusion about the order.

v. Elements of drug orders or prescriptions must be defined as follows;
    a. Name.

b. Age of the Patient.

c. Any known allergies or contraindications; if no allergy is known then it states 'NKA'; information must not be omitted.

d. In thepaediatric population, **Weight** is mandatory.

vi. Drugs must be written legibly and clearly, preferably according to the Generic Name, Brand name can be used in brackets.

vii. Directions must be clearly stated. 'As directed' or 'when needed' must be avoided and should be qualified e.g. "Take one or two tablets for pain or headache" cautioning "Not to be taken empty stomach" and "Take one Capsule every 6 hours for five days" in case of an antibiotic course for chest infection etc.

viii. The hospital must have approved abbreviations.

IND.52 THE ORGANIZATION FORMALLY DETERMINES WHO CAN WRITE ORDERS.

Medical Staff Authorized to Prescribe

Only a registered Medical Practitioner (Medical and Dental) is authorized to write prescriptions/prescribe medicines on their own, in accordance with the parameters of the hospital formulary[27].

A **patient specific direction** is an instruction given by an independent prescriber to another professional to administer a medicine to a specific patient.

IND.53 ORDERS ARE WRITTEN IN A UNIFORM LOCATION IN THE MEDICAL RECORDS.

Uniformity of Documentation

Each patient care plan includes written orders by individuals qualified to order and record patient orders, for example diagnostic tests orders for laboratory testing, orders for surgical and other procedures, medications orders, nursing care orders, and nutrition therapy orders.

[27]UK Medicines Act 1968 and Prescription Only Medicines (Human Use) Order 1997.

Figure No. 18

A uniform **location in the patient's medical record** or **on a common order sheet**, which is then transferred to the patient's medical record periodically or at discharge, facilitates understanding the specifics of an order, when the order is to be carried out, and who is to carry out the order. It also creates easy accessibility to the orders so that orders can be acted upon in a timely manner.

Efforts must be made that Medication Orders are at least transcribed and shall be reviewed by the pharmacist before administration of the dose. Data shows that most errors occur at the point of transcription i.e. what the physician has prescribed and what has been dispensed and administered.

Hospital staff should be aware and practice hospital policy which, amongst other policy statements, also states policies based on which orders must be uniformly written at specified sections on forms and then placed sequentially. Diagnostic imaging and clinical laboratory test orders must provide a clinical indication/rationale. There are exceptions in specialized settings, such as EDs and ICUs, where orders are to be located in the patient's medical record in a different manner[28].

IND.54 MEDICATION ORDERS ARE CLEAR, LEGIBLE, DATED, TIMED, NAMED AND SIGNED.

Clarity of Medication Orders

All medication orders are to be prescribed in writing which should be dated, timed and signed by the prescribing doctor. There must be a written physician's order for prescription and non-prescription medications. The prescriber must also note if the patient has any known allergies, contraindications and body weight, particularly for the paediatric population. Diagnosis is becoming an integral part of the medication prescription, due to 'drug to drug', 'drug to disease' interaction. The pharmacist should have an access to medication history i.e. pre admission medication, to avoid therapeutic duplication and to ensure continuity of therapy.

[28]Joint Commission International. (2010*). Joint Commission International Accreditation Standards For Hospitals 4th edn*. JCI, USA.

To have a complete **Prescription Order**, the following eight items must be included:

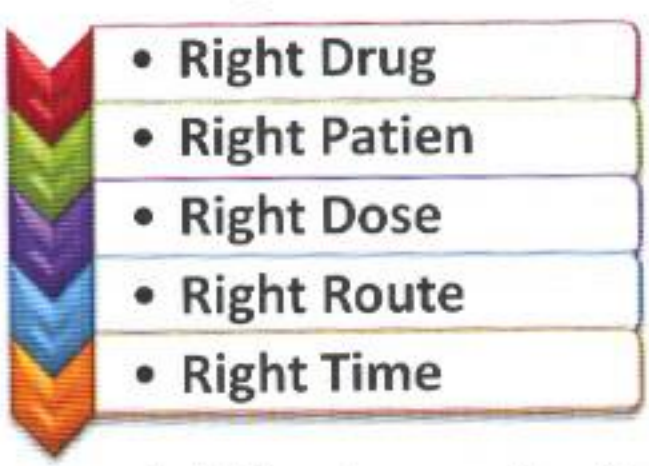
i. The client's full name and parentage etc.
ii. Weight
iii. Allergies/Contraindications
iv. The date of the order
v. Name of the medication
vi. Dosage and administration information
vii. Route of administration
viii. Physician's Signature

IND.55 POLICY ON VERBAL ORDERS IS DOCUMENTED AND IMPLEMENTED.

SOPs on Verbal Orders

i. Verbal orders should only be used in exceptional circumstances. The diagnosis and health status as evaluated and documented by a doctor must be available if the prescribing doctor is not the one who made the initial assessment.
ii. Only one stat dose may be prescribed verbally.
iii. Verbal orders shall initially be taken by a Nurse, and repeated to a second Nurse.
iv. The Nurse receiving the order must record the order on the drug treatment sheet. The entry is to be in red ink and should also include the time, date, name of prescriber and the Nurse's signature, as well as the second Nurse's signature.
v. The Nurse should repeat the order to the doctor to ensure that the details are correct.
vi. The drug treatment sheet is to be countersigned by the doctor who gave the verbal order at the earliest possible time, within 24 hours.
vii. If they are in any doubt, the Registered Nurse should seek clarification from the doctor until they are satisfied about the correctness of the

Figure No. 19



viii. The medication is now to be administered as per the Administration of Medication Procedure and the Medication Policy.

ix. A verbal order should be reconfirmed if the nurse believes that it may compromise the patient's care and treatment.

x. **NO** Verbal Orders for High Alert Medications and High Risk Medications[29]. HCEs should declare their own list, based upon its usage of drugs, of High Risk and High Alert drugs e.g. (KCL, Magnesium Sulfate, Concentrated and Hypertonic Sodium Chloride etc.)[30]

IND.56 THE ORGANIZATION DEFINES A LIST OF HIGH-RISK MEDICATION.

Defining and Listing of High Risk Medications

High-alert (or high-hazard) medications are medications that are most likely to cause significant harm to the patient, even when used as intended.

Although any medication used improperly can cause harm, high-alert medications cause harm more commonly and the effect they produce is likely to be more serious and lead to the patient's suffering, and additional costs associated with care of these patients.

Known **Safe Practices** can reduce the potential hazard and harm. Although the list of high-risk medications includes many, but some of them have been associated more frequently with harm, such as anticoagulants, narcotics and opiates, insulin, concentrated electrolytes e.g. KCl, chemotherapeutics and sedatives etc. The most common types of harm associated with these medications include hypotension, bleeding, hypoglycemia, delirium, lethargy, and bradycardia.[31]

IND.57 HIGH-RISK MEDICATION ORDERS ARE VERIFIED PRIOR TO DISPENSING.

Double-Checking SOPs

Caregivers should be mandated to **Double Check** all **High Risk Medications** before administering. Double-Checking SOPs are given below;

i. Independently comparing the **Label** and **Product Contents** in hand versus the written order or pharmacy-generated Medication Administration Record (MAR).

ii. Independently verifying any **calculations for doses** that require preparation (e.g., any time the medication is not dispensed in the exact patient-specific unit).

iii. Assuring the **accuracy of infusion pump programming** for continuous intravenous infusions of medications.

[29] Check JCIA Manual 4th Edition or website www.ismp.org to get a complete list of medications.

[30] Emergency Orders and Verbal Orders (For Medication) Procedure – West Coast District Health Board.

[31] Institute for healthcare improvement.(2013). *High alert medication safety*. Retrieved fromhttp://www.ihi.org/explore/highalertmedicationsafety/pages/default.aspx

iv. A Certificate to the effect that the Nurse/Dispenser has actually verified the High risk Medication Order before administration, has to be inserted in the record of the patient and signed by the administering professional.

Note: ***Manual double checks are not always the optimal error reduction strategy and may not be practical for every High Alert Medication administration (i.e., at small hospitals during the night shift, and in ORs.)***[32]

Circumstances Increasing Risks/Errors in High Risk Medications

a. Poorly handwritten medication orders.
b. Verbal directions/orders.
c. Similar product packaging.
d. Similar medication name.
e. Improper packaging leading to improper route of administration e.g. Oral liquid in IV syringe, Topical products stored in IV vials.
f. Storage of products with similar names in the same location.
g. Similar abbreviations.
h. Improper storage of concentrated electrolytes.
i. Branded Products i.e. "Auto Dispensing Modules" are to be avoided.

Strategies to Avoid Errors Involving High Risk Medications[33]

1. Medication arrangement;
   A. Avoid storing look-alike, sound-alike (LASA) drugs next to each other (example: instead of storing by generic name (e.g. vincristine and vinblastine) store drugs by brand name (e.g. Oncovin and Velban).
   B. Limit/eliminate high risk drug storage in Pyxis (i.e. list and store separately).
2. Formulary selection;
   Minimize LASA formulary combinations.
3. Tallman lettering;
   A. All medicines should be written in capital letters to eliminate illegible hand writing.
   B. Labeling to emphasize differences in medication names (example: hydrOXYzine vs. hydrALAzine).
4. Computerized Prescriber Order Entry (CPOE);
   A. Eliminates illegible handwriting.
   B. Reduces opportunities for misinterpretation of verbal orders.

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[32] University of Wisconsin Hospital &Clinics.UWHC Hospital Policy #8.33, High Alert Medications.
[33] University of Kentucky/UK Healthcare.*High Risk Medications*. Retrieved from http://www.hosp.uky.edu/pharmacy/departpolicy/PH04-17.pdf

5. LASA drugs could still be confused by Nurses/Dispensers.
    A. System alerts are in place to safeguard selection.
    B. Bar coding can serve as a double check system during medication, selection, preparation, and prior to administration.
    C. Scanning a bar coded medication just prior to administration can detect many types of medication errors before they occur.
6. Alert notes;
    A. Highlighted stickers on packaging.
    B. Pop-up messages attached to LASA drugs.
    C. Highlighted drug storage areas.

STANDARD-9. MOM-2: POLICIES AND PROCEDURES GUIDE THE SAFE DISPENSING OF MEDICATIONS.

IND.58 DOCUMENTED POLICIES AND PROCEDURES GUIDE THE SAFE STORAGE AND DISPENSING OF MEDICATIONS.

Storage and Dispensing Policy

Storage/warehousing is an important aspect of the total drug control system. Proper environmental control (i.e., proper temperature, light, and humidity, conditions of sanitation, ventilation, and segregation) must be maintained wherever drugs and supplies are stored. Storage areas must be secure; fixtures and equipment used to store drugs should be constructed so that drugs are accessible only to designated and authorized personnel. Safety is also an important factor, and proper consideration should be given to the safe storage of poisons and flammable compounds. External medications should be stored separately from internal medications. Medications must be stored in a refrigerator containing only medicines, and items other than drugs should be kept in a separate refrigerator.

Drug Storage Site Inspections

A minimum of quarterly inspections shall be carried out, under the direction of the pharmacist, of all medication storage areas within the hospital. A **Written Record** shall verify that **Safe Storage Practices** including the following are implemented:

i. The storage is properly maintained using stacks, bin cards and inventory control documents.

ii. Medications are stored securely in the ward and available to the authorized personnel only.

iii. Narcotic and controlled drugs are stored with proper measures of security.

iv. Standards of neatness and cleanliness are consistent with good medication handling practices.

v. Reconstituted medications are properly labelled with expiry and preparation date.

vi. Illegible labels are replaced.

vii. Liquid bottles are clean and free of spills.

viii. The patient's own medications are stored securely and separately.

ix. Disinfectants and drugs for external use are stored separately from internal and injectable medications.

x. Medications are stored properly and medications requiring special environmental conditions for stability are properly stored.

xi. Non-pharmaceuticals are stored separately from medications in the medication room fridge.

xii. Expired or obsolete medications are not stocked.

xiii. Medications no longer required are returned to the pharmacy.

xiv. Medications are not overstocked.

xv. Medications which may be required on an urgent or emergency basis are in adequate supply and readily available (Emergency Box, Crash Carts).

xvi. Medication room door/cart is closed when supervised and locked when unsupervised.

Dispensing shall be restricted to the Pharmacist or Pharmacy Technicians under the direction and supervision of the Pharmacist.

a. An automatic **Stop-Order Procedure** shall be developed for antibiotics, narcotics and other classes of drugs for which a limited duration of therapy is desirable. There shall be a system in place to notify the physician of the impending expiration of the duration of prescribed medication to ensure appropriate patient reassessment.

b. **Stat Orders** shall be processed and dispensed according to specific written procedures in accordance with hospital policy.

c. **Multi-Dose Vials** are dated upon first puncture;theirmaximum use should be defined.

d. The Pharmacist may **Substitute Therapeutically Equivalent Products** without consulting with the prescriber, provided the substitution has been approved by the hospital authorities (i.e. therapeutic interchange, equivalent oral dosage form substitution, dosage interval substitution, etc.).This should be clearly defined by the hospital like ACE inhibitors, Cephalosporin, Flouroquinolines. Mostly it is the generic substitute.

e. A **Prescription Drug Order** must be **communicated directly to a Pharmacist**, or when recorded, in such a way that the Pharmacist may review the Prescription Drug Order as transmitted. If transmitted orally or electronically, the prescription drug order shall be filed and maintained on paper of permanent quality by the pharmacist.

IND.59 THE POLICIES INCLUDE A PROCEDURE FOR MEDICATION RECALL.

Medication Recall Procedure

Recall is a process[34] for withdrawing or removing a pharmaceutical product from the pharmaceutical distribution chain because of defects in the product, complaints of serious adverse reactions to the product and/or concerns that the product is or may be counterfeit. The recall might be initiated by the manufacturer, wholesale license holder, regulatory agency or Department of Health(DoH). A statement by a practitioner can be the reason for recall.

Recall might be initiated as a result of reports or complaints on quality or safety of a pharmaceutical product referred to the Licensee from a variety of sources. The reports or complaints may be referred by manufacturers, wholesalers, retailers and hospital pharmacies, research institutes, medical practitioners, dentists and patients. Recall might also be initiated as a result of analysis and testing of samples of pharmaceutical products by the manufacturers and/or by the DoH. Recall of pharmaceutical products manufactured overseas might be initiated by the local or overseas health authorities, or from information received directly from such authorities.

Certain information is essential to permit assessment of the validity of the report of quality defects, safety or efficacy problem with pharmaceutical products, the potential danger to consumers and the action appropriate to the situation.

An Adverse Drug Reaction Form as per the specimen format given below can be used to report problems;

Table 12: Pharmaceutical Product Problem Reporting Form

DETAIL OF THE PROBLEM	
Reporting Institution (institution reporting the problem of Pharmaceutical Product to DoH)	
Name of contact	Position/Occupation
Organization	
Address	
E-mail address	
Tel: (office) (mobile)	Fax
Pharmaceutical product problem occurred in ..... (location)	
Nature of the problem	

[34]Department of Health Hong Kong, China (2011). *Pharmaceutical Products Recall Guidelines.*

Date of receiving complaint	
Source of Complaint	O Patient O Customer O Retailer O Self-inspection Other:_____
Number of similar reports received _____	
Description of the problem (use separate sheet if space is inadequate)	
Results of tests/investigation on suspect or other samples	
Has manufacturer/distributor been contacted? _ No _ Yes (please write down their names)	
Other relevant information (attach photocopies, package insert and press release of oversea authority of the product if any)	

DETAIL OF THE PRODUCT		
Name of the product (as in product registration certificate)		Registration number
Active Ingredients and Strength		
Indications		
Dosage form		Pack size
Batch number		Expiry date
Manufacturer		
Name		
Address		
Tel	Fax	Manufacture date
Quantity of the batch manufactured		Date and quantity released

Quantity on hold		Quantity distributed: local overseas
Importer		
Name		
Address		
Tel.	Fax	Import date
Quantity of the batch imported		Date and quantity released
Quantity on hold		Quantity distributed: Local re-exported
Local Distributors (please attach distribution list)		
No. of local distributors		
Name		
Address		
Contact Person		Tel (office & mobile)
Quantity on hold		Quantity distributed: Local re-exported
Exporter		
Has the product been exported outside ..... (location)? Yes No If yes, specify the exported countries.		
Name of Reporter: _____ Post: _____ Contact no. (mobile): _____ Date: _____ Signature of Reporter: _____		

Recall must be reported to the DoH within 24 hours of receipt of the complaint or report for investigation. The abovementioned Pharmaceutical Product Problem Reporting Form, together with opinions on toxicological or therapeutic hazards, and the action proposed by the authorities/organization should be referred onto the DoH.

IND.60 EXPIRY DATES ARE CHECKED AND DOCUMENTED PRIOR TO DISPENSING.

Monitoring of Expiry Dates

The Pharmacy Department is responsible for conducting physical examinations of all medication to ensure their being intact and in date at the time of use. The pharmacy in-charge shall ensure implementation of the following **SOPs** for the Monitoring of Expiry Dates;

i. The orders for responsibility to check the Expiry Dates on Daily/Monthly/Quarterly/Yearly basis should exist.

ii. Once a drug is **re-packaged** in a separate container there is a reduction in the shelf life of the product, therefore, original expiry dates should not be used.It is the responsibility of the **re-packaging technician** to inspect these products for date of manufacturing and then proposed expiry.

iii. Expired stock or products which expire within a month are pulled from the shelves and the purchasing cell notified of the need for additional stock.

iv. The pharmacists and pharmacy technicians in the dispensing areas are responsible for the inspection of all drugs products in the working stock. Each technician will have a portion of the stock from the central pharmacy assigned for monthly inspection. A visual inspection for deterioration and expiry date shall be a normal part of the dispensing and checking procedure.

v. All expired repackaged products shall be pulled from the shelves and held in a segregated area for disposal.

vi. All expired drugs which are in the original package shall be stored in a segregated area in the stockroom and will be processed as per hospital policy.

IND.61 LABELLING REQUIREMENTS ARE DOCUMENTED AND IMPLEMENTED BY THE ORGANIZATION.

Labelling and Packing Rules

The Government of Pakistan Drugs (Labelling and Packing) Rules of 1986 govern the manner of labelling of pharmaceutical products and the hospital pharmacy shall ensure compliance of these labelling requirements and conformance to the terms and conditions of the contract agreement and before acceptance of received supplies.

HCPs shall label all medications, medication containers (syringes, medicine cups, basins), or other solutions. This ensures safe medication practices and addresses a recognized risk point in the safe administration of medications in perioperative and other procedural settings. Errors,

sometimes tragic, have resulted from medications and other solutions removed from their original containers and placed into unlabelled containers.

A standardized method[35] for labeling all medications will minimize errors. Anytime one or more medications are prepared but are not administered immediately, the medication syringe/vial will be labelled with drug strength, date, time and secured in such a way that it can be readily determined that the contents are intact and have not expired. At a minimum, all medications are labelled with the following information;

MedicationLabelling Checklist

i. Patient's Name.

ii. Medication name, strength (concentration), and amount.

iii. Expiry date when not used within 24 hours.

iv. Expiry time when expiry occurs in less than 24 hours.

v. The date prepared and the diluents, for all compounded IV admixtures and parenteral nutrition solutions.

When preparing medications for multiple patients, or when the person preparing the medications is **NOT THE PERSON** administering the medication, the label must include the **"Patient name".**

In surgical or other procedural settings (radiology, other imaging services, endoscopy units, and patient care units) where "bedside" procedures are done, when medications are drawn up and put on the sterile field for **use during that specific procedure, at a minimum**, the label will include the following:

Bedside Medication Labelling Check List

a. Medication name.

b. Medication strength (concentration).

c. Medication amount (if not apparent from the container).

d. Expiry date is required if the medication will not be used within 24 hours.

e. Expiry time is required if the expiry will occur in less than 24 hours.

f. Date prepared and the preparer's initials.

g. Any remaining medication must be discarded immediately after the case/procedure.

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[35] Department of Pharmacy Policies and Procedures.(2011). *Medication Labeling*. Retrieved from http://pharmacy.uams.edu/PNP/PNP523.htm

If, during the perioperative or peri-procedural process, a solution or medication is poured, drawn into a syringe, or otherwise used from its original container and immediately administered, or disposed of in some fashion, labelling is not required.

STANDARD-10. MOM-3: THERE ARE DEFINED PROCEDURES FOR MEDICATION ADMINISTRATION

IND.62 MEDICATIONS ARE ADMINISTERED (DISPENSED) BY THOSE WHO ARE PERMITTED BY LAW TO DO SO.

Professionals Legally Authorized to Administer the Drugs/Medications

Administering a medication to treat a patient requires specific knowledge and experience. Each HCE is responsible for identifying those individuals with the requisite knowledge and experience, and who are also permitted by licensure, certification, laws or regulations to administer medications (PMDC Ordinance 1962, PMDC Amendment Act 2012, PNC Ordinance, Pharmacy Council Act, Punjab Medical Faculty Act, Pakistan Injured Person Act etc.) An organization may place limits on medication administration by an individual, such as for controlled substances or radioactive and investigational medications. In emergency situations, the organization identifies any additional individuals permitted to administer medications. A Specimen for Listing of Professionals Authorized to Administer the Drugs/Medications is provided below;

Table 13: Specimen List of Professionals Authorized to Administer the Drugs/Medications

Sr.#	Particulars of Professionals	Authorization PMDC/PNC/PMF etc.	Validity Date
1.			
2.			
3.			
4.			
5.			

Signatures of Administrator HCE _____

Date _____

IND.63 PREPARED MEDICATIONS ARE LABELLED PRIOR TO PREPARATION OF A SECOND DRUG.

Instant Labelling

Prepared medicines are labelled immediately upon preparation, including, at minimum;

i. Patient's full name and a second patient identifier (e.g., medical record number, DoB).
ii. Full generic drug name.
iii. Drug administration route.
iv. Total dose to be given.
v. Total volume required to administer this dosage.
vi. Date of administration.
vii. Date and time of preparation.
viii. Date and time of expiration when not for immediate use.

Immediate use must be defined by institutional policy (e.g. use within 2 hours).

Practitioners/institutions are not expected to be in full compliance with this standard if they currently have electronic systems that are unable to meet these labelling requirements. Appropriate changes should be implemented as soon as possible to ensure that electronic labels integrate all of these elements.

Practitioners/institutions that administer intrathecal medication maintain policies specifying that intrathecal medication will ***not be prepared during preparation of any other agents.***[36]

IND.64 PATIENT IS IDENTIFIED PRIOR TO ADMINISTRATION.

Identification of Patient being Administered Medication

In order to make sure that you are about to administer medications to the right individual, you have to know the individual.

Even when you know the individual well, mistakes can happen. Sometimes, when medications are being administered to more than one individual in a setting, or if you prepare medications for more than one individual at a time, you can be distracted and give the medications to the

[36] American Society of Clinical Oncology. (2011). *ASCO-ONS Standards for Safe Chemotherapy Administration*. Retrieved from http://www.asco.org/ASCOv2/Practice+%26+Guidelines/Quality+Care/Quality+Measurement+%26+Improvement/ASCO-ONS+Standards+for+Safe+Chemotherapy.

wrong individual. So authorized Person/Nurse administering the medication should identify the patient every time and reflect on the patient's record.

Avoid Serious Mistakes by Complying with the following SOPs;

i. Prepare medication for one individual at a time.
ii. Give the medication to the individual as soon as you prepare it.
iii. Do not talk to others and ask them not to talk to you when you are giving medication.
iv. Do not stop to do something else in the middle of giving medications.
v. Pay close attention at all times when you are giving medications.
vi. Must compare the individual's name on the prescription label, the medication order and the medication log. Make sure that they match. If they do not match, or if there is any doubt about whether you are giving the medication to the right individual, **ASK QUESTIONS!**
vii. If you make a mistake, follow the SOPs for reporting medication errors. You may need to call the individual's physician, or take the individual to the emergency room for evaluation[37].

IND.65 MEDICATION IS VERIFIED FROM THE ORDER PRIOR TO ADMINISTRATION.

Medication Verification Instructions

In order to ensure that right medication is being administered, the below mentioned points converted to a Checklist should be used;

i. Read the medication label carefully (remember that some medications have more than one name: a brand name and at least one generic name).
ii. Check the spelling of the medication carefully. If there is **any** doubt about whether the medication name is correct, stop and call the pharmacist **before** you give the medication.
iii. Read the medication order carefully. Make sure that the medication name on the order matches the medication name on the label.
iv. Read the medication log carefully. Make sure that the medication name on the label, the medication order and medication log match **before** giving the medication.
v. Look at the medication. If there is anything different about the size, shape or colour of the medication, call the pharmacist before you give it. It could be that you have been given a different generic brand of the medication. But sometimes when a medication looks different it means that you have the wrong medication.

[37] BDS Medication Administration Curriculum Section IV 2011

vi. All high risk medications which are known to cause serious reactions, should be checked for hypersensitivity reactions before administration (intra dermal check) e.g. Penicillin, ATS etc.

Note: ***Prescription drugs shall be dispensed only pursuant to a valid prescription or a valid order. A pharmacist shall not dispense a prescription which the pharmacist knows or should know is not a valid prescription.***

IND.66 DOSAGE IS VERIFIED FROM THE ORDER PRIOR TO ADMINISTRATION.

Dosage Verification

The **right dose** is **how much** of the medication you are supposed to give the individual at one time.

To determine the dose, you need to know the **strength** of each medication. In the case of liquid medications, you need to know the strength of the medication in each liquid measure. The dose equals the strength of the medication multiplied by the amount.

Ensure the following **Dose Verification SOP** by comparing the Dose on the:

i. Prescription Label
ii. The Medication Order
iii. The Medication Log

ALERT! Always ask the pharmacist about any order that requires administering more than 3 tablets or capsules of the same medication in one dose. This could be an over-dosage!

IND.67 ROUTE IS VERIFIED FROM THE ORDER PRIOR TO ADMINISTRATION.

Route Verification[38]

The route means how and where the medication goes into the body. Most medication is taken into the mouth and swallowed, but others enter the body through the skin, rectum, vagina, eyes, ears, nose, and lungs, through an NG-tube or by injection. The use of multiple routes of administration in one prescription must be avoided for the same high risk medicine (e.g. IV/Oral).

Sometimes mistakes happen when you are giving several medications by different routes at the same scheduled time. For example, you may be giving an eye drop and an eardrop to the same

[38] NSW Government. (2012). High Risk Medicines Management. Retrieved from http://www.health.nsw.gov.au/policies/pd/2012/pdf/PD2012_003.pdf

individual at the same time. If you become distracted, you could accidentally put the eardrops in the individual's eye. This would be a very serious mistake.

When measuring and administering medicine doses, ensure required devices are used according to manufacturers' specifications and that they are used according to their stated purpose.

Ensure that strengths of medicines are clearly visible in terms of the dosage unit or dose per volume of liquid e.g. mg/mL.

Ensure the following **Route Verification SOP** by comparing the Route on the:

i. Prescription Label
ii. Medication Order
iii. Medication Log

Additional care is taken when administering the following dosage forms:

a. Transdermal patches
b. Modified release oral medicines
c. Inhaled Medicines
d. Parenteral fluids.

IND.68 TIMING IS VERIFIED FROM THE ORDER PRIOR TO ADMINISTRATION.

Timing Verification

The general principles are that it is very important for medication to be given at the time of day that is written on the medication order. Some medications must be administered only at very specific times of the day. For other medications, the time of day that you give the medication is less critical. For example, some medications must be given before meals, one hour after meals or at bedtime in order to work best.

If no specific time is written on the medication order, ask the pharmacist about the best time of day to give the medication. Write this down on the medication log.

The **Dispensing Time SOP** for Standardized Dose Administration throughout the hospital is that medications must be given within a ½ hour of the time that is listed on the medication log. This means that you have ½ hour before the medication is due, and ½ hour after it is due to administer the medication in order to be on time with medication administration.

IND.69 MEDICATION ADMINISTRATION IS DOCUMENTED.

Documentation of Medication

The following instructions must be acted upon for proper documentation;

i. Each time a medication is administered, it must be documented and signed with full name/stamp.
ii. Documentation of medication must be done at the time of actual administration.
iii. All documentation required for the patient, must be completed on the medication log individually and not all together as a batch.
iv. Documentation should be done in BLUE or BLACK ink.
v. NO PENCIL or WHITE OUT can be used.
vi. NEVER OVER WRITE documentation.
vii. In case of a mistake in documenting the medication log, CIRCLE the MISTAKE and write a note on the log to explain what happened.
viii. Double check documentation done by you after finishing the medication process and again at the end of the duty.
ix. Coordinate with a colleague to have documentation done by you double-checked for you, ask him/her to go over your medication log documentation to make sure that it is complete and vice versa.

IND.70 POLICIES AND PROCEDURES GOVERN PATIENT'S SELF-ADMINISTRATION OF MEDICATIONS

SOPs for Self-Administration of Medicines

Self-Administration of Medicines (SAMs)[39] is very useful as it enables patients in the hospital to manage their medication under supervision of health professionals in a way that mirrors their home situation and allows an assessment of the way they will cope after discharge.

The HCEs should adopt the following SOPs;

i. The SAM, either those brought into the organization or those prescribed or ordered within the organization, is known to the patient's physician and noted in the patient's record.
ii. The organization controls the availability and use of medication samples.

[39] Self-Administration of Medicines Policy Doncaster and Bassetlaw Hospitals (www.dbh.nhs.uk)

iii. Every patient entered in the self-administration scheme is given a Medicine Information Card approved by the Drug and Therapeutics Committee which carries the following information:
   a. The name and strength of the medicine.
   b. The reason for taking the medicine.
   c. The time and dose of the medicine.
   d. Any special directions relating to the medicine.
   e. Possible significant common side-effects of the medicine.

iv. The Medicine Information Card is completed by the person assessing the patient, using the in-patient prescription chart as a guide. This information is checked by another trained nurse/pharmacist, or pharmacy technician to ensure it is transcribed accurately.

v. The information given to the patient is reinforced verbally at the point the Medicine Information Card is handed over, and is checked and further reinforced on a continual basis.

vi. Patients will receive the manufacturer's Patient Information Leaflet with their medicines.

vii. The in-patient prescription chart is checked by the nurse for any changes at least once a day and the Medicine Information Card updated as necessary.

viii. Patients entered in the self-medicine scheme may continue to administer their medicines pre-operatively, but must be given clear guidance on any medicine that must be omitted on the day of operation.

ix. All medicines self-administered by patients must be presented and labelled in a form that provides all the information necessary for the patient to self-administer without risk of error. This is achieved in one of two ways:
   a. **Patients' own medicine may be reused** for self-administration provided they meet the requirements of the HCE Policy for Safe and Secure Handling of Medicines.
   b. **Individually dispensed items from the pharmacy** will be supplied from the Pharmacy Department fully labelled for use by the patient and will include the manufacturer's Patient Information Leaflet.

x. The quantity of medicine supplied will be sufficient to cover the patient's anticipated length of stay plus a further fourteen days' supply following discharge.

xi. Any dosage alteration to a SAM by a prescriber must be brought to the attention of a nurse and pharmacist at the earliest opportunity to allow re-labelling/re-supply and alteration of the Medicine Information Card to occur.

xii. Any discontinuation of a SAM must be brought to the attention of a nurse and pharmacist at the earliest opportunity to allow the medicine to be removed from the cabinet.

IND.71 POLICIES AND PROCEDURES GOVERN PATIENT'S MEDICATIONS BROUGHT FROM OUTSIDE THE ORGANIZATION.

SOPs on Patient's Own Drugs

Every medicine that is brought into hospital by a patient and is either prescribed for them by their registered medical practitioner or purchased for them by others is classified asPatient's Own Drugs (POD). The following is the SOP which should be adhered to;

Any medicines remaining at home should, if possible, be brought in by relatives as soon as possible. If consent is granted, the drugs should be locked in the locally agreed POD storage area for assessment by the Pharmacist.

i. **Consent**
   a. Drugs brought in from home remain the patient's property and verbal consent for their use or destruction must be obtained by the admitting nurse, pharmacist or doctor. Where it is not possible for a patient to consent, a relative or attendant may assent on the patient's behalf. This should be documented in the patient's notes. Please note if patient gives the consent, hospital is still legally accountable if there is a problem with the patient's own medication. So the hospital should devise a safe and clear-cut policy on the use of POD.
   b. If the patient/attendant does not agree to use the PODs in the ward, the medicines must be stored in the ward in a locked cupboard and returned to the patient on discharge with clear instructions as to their use. If any drugs are considered unsatisfactory for use, the pharmacist should inform the patient/attendant of the risks associated with poor quality medicines or poor labelling. This should be documented in the patient's medical notes.

ii. **POD Assessment:** Only medicines that can be positively identified will be accepted for use. (Exceptions: POD trained staff may authorize the use of unlabelled inhalers, eye drops and loose blister strips, provided the appropriate guidelines are followed). The responsible pharmacist, registered nurse, mental health practitioner or registered medical practitioner must be satisfied with the general condition of the product and its packaging and labelling. PODs which are not currently prescribed or whose directions do not correspond with the prescription should be stored in the POD overflow cupboard or other secure drug storage cupboard. The ward pharmacist should be informed at the next available opportunity and a note should be left in the doctor's communication book. Any discontinued items should be removed immediately.

iii. **During Routine Opening Hours:** PODs will be checked in the wards. If they are suitable the prescription chart will be marked 'POD' by the pharmacist or pharmacy technician, initialled, dated and the number of tablets noted in the pharmacy box on the

prescription chart. The POD will have a green sticker affixed to the container, which will be signed, dated and endorsed with the quantity and strength by the pharmacist if they are suitable for use or reissue. The pharmacist will only endorse the chart when they have assessed the PODs.

iv. **Out of Pharmacy Hours**

a. PODs will be checked by a registered nurse or pharmacist. Any medication which has been checked should have a ward POD sticker attached which should be signed and dated by the assessing nurse. The pharmacist or pharmacy technician will re-check these PODs on their next visit.

b. Unsuitable medicines will be returned to the Pharmacy Department for assessment by pharmacy staff and if necessary a new supply organized by the clinical pharmacist or by the technician on their next round.

v. **Supply of PODs:** The PODs will only be used in the hospital when they are passed by the doctor or pharmacist. All regular medicines will be dispensed from the hospital Pharmacy Department. Ward stock bottles or in-patient supplies must never be stored in the patient's cabinet unless labelled with full instructions for use.