1.0 PURPOSE

1.1 To outline the process for order clarifications, evaluation and monitoring of prescribed drugs, and to describe the standard medication administration time.

1.2 To assess and monitor patients care to avoid adverse drug-drug and drug-food interactions and provide patients with needed education in order to continue care following discharge.

2.0 DEFINITION

2.1 Drug–Drug Interaction:
A modification of the effect of a drug when administered with another drug. The effect may be an increase or a decrease in the action of either substance, or it may be an adverse effect that is not normally associated with either drug. The particular interaction may be the result of a chemical-physical incompatibility of the two drugs or a change in the rate of absorption or the quantity absorbed in the body, the binding ability of either drug, or an alteration in the ability of receptor sites and cell membranes to bind either drug.

2.2 Drug–Food Interaction:
An effect on bioavailability of drugs when they are administered concurrently with food or beverages.

3.0 RESPONSIBILITY

3.1 The Pharmacist in-charge: is responsible for
   3.1.1 Reviewing the physician’s order.
   3.1.2 Clarifying with the physician the unavailable drugs or unclear orders.
   3.1.3 Filling-up the Pharmacy Clarification Form.

3.2 Nurse in-charge: is responsible for
   3.2.1 Receiving and attaching the clarification form to the physician’s order sheet.
   3.2.2 Administering medication as per instructions on the form.
   3.2.3 Documenting the medication that the patient received.
4.0 CROSS REFERENCES POLICY
   4.1 Medication Administration Time.
   4.2 Drug-Food Interaction Policy.

5.0 POLICY

   5.1 The pharmacy will review medication orders for availability, dose, route, frequency, drugs are prescribed and dispensed for their approved indications, or any other incomplete / incorrect prescribing information.

   5.2 Pharmacy has a multidisciplinary program whereby significant drug-drug and drug-food interactions are identified, resolved and communicated to physicians, nurses and/or dietitians, and patient’s caregivers, thereby providing a mechanism for effective drug-drug and drug-food interaction management.

   5.3 Clarification Form is used as an intervention mechanism to clarify and document physician's prescription order to pharmacy. The Clarification Form, when appropriately filled, is considered to be a confirmed correction of the physician order.

   5.4 The Pharmacy Department in coordination with the Nursing Department adopts a Standard Medication Administration Time.

6.0 PROCEDURE

6.1 Prescription Evaluation And Monitoring:

   6.1.1 The pharmaceutical care department will maintain an updated and complete medication profile for each patient admitted to the hospital.

   6.1.2 A trained pharmacist will review all medication orders before dispensing (except in emergencies, life saving situations, or diagnostic imaging where the prescriber is physically present) and will intervene if the order needs clarification and/or amendments.

   6.1.3 The pharmacist will review and monitor medication orders for the following:

       6.1.3.1 Patient allergies and sensitivities.

       6.1.3.2 Approved indications for use.

       6.1.3.3 Therapeutic duplications.

       6.1.3.4 Any serious or potential Drug-Drug interactions and Drug-Food interactions that might affect the patient drug therapy outcome.

       6.1.3.5 Appropriateness of the medication dose, frequency, and route of administration.

       6.1.3.6 Contraindications.

       6.1.3.7 All issues regarding medication orders or prescriptions are clarified with the prescribing physician and documented before dispensing.
6.1.4 The pharmacist will use the Clarification Form to bring to the physician attention any potential and serious Drug-Drug and Drug-Food interactions. (Ref. to Drug-Food Interaction Policy).

6.1.5 The pharmacist will evaluate whether medications are prescribed and dispensed for their approved indications as evidenced by the given diagnosis and will discuss with the physician any medication that’s being prescribed for patients outside of their approved indications.

6.2 **Prescription Clarification:**

6.2.1 **In-Patient:**

6.2.1.1 The Pharmacist will contact the Most Responsible Physician and clarify with the physician unavailable drugs, unclear orders, and Drug-Drug or Drug-Food interactions.

6.2.1.2 Check routinely inpatient prescription orders for any possible incompatibilities.

6.2.1.3 Report any unusual complaints, their nature, severity and incidence relating a drug or food intake by the patient.

6.2.1.4 Physician interferes; Stop all medications and food, re-assessment, consultation.

6.2.1.5 The Pharmacist in-charge will fill-up the pharmacy Clarification Form.

6.2.1.6 The original copy of the clarification form will be sent along with the medication to the ward with the nurse as per new order after he/she has signed the clarification form for receiving.

6.2.1.7 The Nurse in charge will receive and attach the clarification form to the physician’s order sheet, to be countersigned by the physician within 24 hours.

6.2.1.8 The nurse shall administer medication as per instructions on the clarification form; she doesn't have to reconfirm the order with the physician.

6.2.1.9 The nurse will document at the nurse’s notes the medication that the patient received.

6.2.1.10 Affix the form on next blank space available on the patient’s chart.

6.2.1.11 The duplicate form (carbon copy) will be kept at the inpatient pharmacy.

6.2.1.12 During the working hours, in case the Most Responsible Physician is not available, the matter will be referred to his Head of the Department.

6.2.1.13 Report to Medical Director, Chairman of the P&T Committee.

6.2.1.14 Extreme care is given to patients receiving anticoagulants, digoxin, lithium, MAO inhibitors and psychotropic drugs.
6.2.2 **Out–Patient (OPD):**

6.2.2.1 The pharmacist in-charge will contact the Most Responsible Physician and clarify with the physician the unavailable or unclear order, Drug-Drug or Drug-Food interactions.

6.2.2.2 Check the patient prescription for any possible drug-drug or drug-food incompatibilities.

6.2.2.3 If you find out any possible interaction, communicate with the prescriber for assurance, consultation or changing of one or more prescribed drugs.

6.2.2.4 Interrogate the patient for any previous unusual effects, discomfort or reactions after administration of any particular drug or food.

6.2.2.5 Instruct the patient to report any unusual or new symptoms after administration of any new drugs. Give telephone numbers and names of related persons for communications.

6.2.2.6 Extra care is given to patients receiving oral anticoagulants, digoxin, lithium, MAO inhibitors and psychotropic drugs.

6.2.2.7 Document in a specific file all the reported incompatibilities.

6.2.2.8 The pharmacist will fill-up the pharmacy Clarification Form with the following information:

   6.2.2.8.1 Name of the Most Responsible Physician.
   6.2.2.8.2 Outcome/ result of the discussion (during telephone order by the doctor).
   6.2.2.8.3 His/her specialty.
   6.2.2.8.4 Affirmation (outcome) to change from the original order.

6.2.2.9 The change in the order must be entered in the patient’s profile in the computer.

6.2.2.10 Duplicate of the pharmacy clarification form will be kept in a special file in OPD Pharmacy.

6.2.2.11 The original copy of the form will be collected and sent to the Medical Record Department, the following day for inserting to the respective patients’ files- OPD section.

6.2.2.12 The original copy will be attached at the OPD Clinic Medication Sheet, left side of the Patient’s Files to be seen by the Doctor’s during patient’s visit, and for his / her signature.

6.2.2.13 In case the Most Responsible Physician is not available, the matter will be referred to his Head of the Department or his designee.

6.2.2.14 Once the pharmacist clarified the order, with the Head of Department or his Designee, same procedure will be followed as above.
6.2.2.15 If the patient comes after the working hours and the Most Responsible Physician is not available nor his Head of Department or designee, the pharmacist will advice the patient to come back the following day for clarification. If not possible, the pharmacist will call the physician on-call for clarification.

6.3 Drug Interaction Monitoring:

6.3.1 The physicians, pharmacist and the nurses will monitor for the adverse drug-drug, drug-food interactions and will report adverse reactions to the medication safety officer using the ADR Alert Form.

6.3.2 If an adverse reaction is discovered, the physicians, inpatient pharmacists, nurses or dietitians will document it in the appropriate section in patient’s chart.

6.3.3 The pharmacists, nursing staff, and/or clinical dietitians will call in-service hospital staff as need arises.

6.4 Drug-Drug Interaction:

6.4.1 For any order, the pharmacist will check for potential drug-drug interaction.

6.4.2 If there is drug-drug interaction noted, the pharmacist will notify the treating physician, fill up the clarification form and give the original copy to the nurse together with the requested medicine awaiting the physician action.

6.4.3 The duplicate copy will be filed in the patient profile for reference.

6.5 Drug-Food Interaction:

6.5.1 For any new order, the pharmacist will check for potential drug-food interaction.

6.5.2 For food incompatibility concerning inpatients, take related information from the patient, relative, nurse, and the dietician.

6.5.3 For any adjustment on the time of administration, e.g. before or after food, the pharmacist will write a note on the medication label.

6.5.4 For any drug-food interaction that needs diet modification, the pharmacist will fill up a clarification form and give the original copy to the nurse together with the requested medicine. The nurse should inform the clinical dietician to adjust patient diet.

6.5.5 The Dietitian will assure that patients are receiving the appropriate type of diet to avoid drug-food interaction.

6.5.6 The Dietitian will provide additional diet counseling sessions when more detailed information is needed (i.e. counseling on nutrition and modified diets).

6.5.7 The Dietitian will assure that patient and family counseling is documented in the patient’s medical record file on the Family Education Form.
6.6 **Standard Time of Medication Administration:**

6.6.1 The Standard Time of Medication Administration is approved by the P&T committee.

6.6.2 The policy for Medication Administration Schedule is formulated by the Nursing Department as a multidisciplinary policy.

6.6.3 The number of doses given by the pharmacy will be based on the dose schedule chosen during order entry. This number will appear on the bag label.

6.6.4 If a physician wants a dose administered outside the standard administration schedule, he/she must indicate specific times.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Meaning</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>QD</td>
<td>Daily</td>
<td>0800 H</td>
</tr>
<tr>
<td>BID</td>
<td>Twice daily/every 12 hrs</td>
<td>0800 H</td>
</tr>
<tr>
<td>TID</td>
<td>Three times daily</td>
<td>0800 H</td>
</tr>
<tr>
<td>QID</td>
<td>Four times daily</td>
<td>0600 H</td>
</tr>
<tr>
<td>Q4H</td>
<td>Every 4 hours</td>
<td>0800 H</td>
</tr>
<tr>
<td>Q6H</td>
<td>Every 6 hours</td>
<td>0600 H</td>
</tr>
<tr>
<td>Q8H</td>
<td>Every 8 hours</td>
<td>0800 H</td>
</tr>
<tr>
<td>HS</td>
<td>At bed time</td>
<td>2200 H</td>
</tr>
</tbody>
</table>

7.0 **FORMS**  
7.1 Pharmacy Clarification Form

8.0 **EQUIPMENT**  
8.1 N/A.

9.0 **REFERENCES**  
9.1 CBAHI resource manual.