Administrative Policies and Procedures for MOH hospitals /PHC Centers	السياسات والإجراءات الإدارية بمستشفيات ومراكز وزارة الصحة
TITLE: Monitoring Patient Response To Medications	
APPLIES TO: Pharmacy, Medical and Nursing Staff	
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1.0 PURPOSE

1.1 To establish a mechanism to ensure that patients must be monitored for the effects of medications.

1.2 To ensure that drug therapy is appropriate and adverse events are minimized.

2.0 DEFINITION

2.1 **Monitoring Patient Response To Medications –** is a process that ensures the medication therapy is appropriate and effective, while minimizing the occurrence of adverse events.

2.2 **Adverse Drug Reaction (ADR)** – is any noxious, unintended, undesirable, or unexpected response to a drug that occurs at doses used in humans for prophylaxis, diagnosis, therapy of disease, or for modification of psychological function. This definition excludes predictable, dose-related side effects due to drugs which result in little or no change in patient management, and in particular, mild extrapyramidal side effects due to neuroleptic drug therapy.

3.0 RESPONSIBILITY

3.1 **The nurse:** is responsible for:

3.1.1 Monitoring and assessing the patient by spending more time at the bedside after first doses.

3.1.2 Notifying the treating physician of any suspicion of an adverse event.

3.2 **The physician:** is responsible for:

3.2.1 Monitoring and evaluating patient's response to medications and alert the pharmacy department of any adverse event related to the use of medications.

4.0 CROSS REFRENCES

4.1 Management of Adverse Drug Reactions.

5.0 POLICY

5.1 The hospital has a collaborative process, involving physicians, nurses, and pharmacists, to monitor the patient's response to medications.
5.2 The pharmacy department has a process for monitoring the response to the first dose of medications that are new to the patient.
5.3 A patient response to medication must be monitored according to the clinical needs of the patient, and actual or potential medication-related problems must be addressed. Drug therapy must be stopped, following appropriate protocol, if it is not effective, or the risks outweigh the benefits.
5.4 IV medications have a more rapid effect on the body, it is important that staff administering medications understand each medication and its monitoring requirements.
5.5 The pharmacy department annually updates the list of all Formulary medications that cause changes in the patient's equilibrium and may raise the risk of falls.
5.6 Policies and procedures for IV medication administration must address appropriate IV medication monitoring requirements, including assessment of patients for risk factors that would influence the type and frequency of monitoring.

6.0 PROCEDURE

6.1 The pharmacy department has a list of all Formulary medications that cause changes in the patient's equilibrium and may raise the risk of falls to patients. The list is updated annually.
6.2 After prescribing, physicians must inform patients of the need for follow-up care to monitor whether any changes to the treatment plan (e.g., prescription) are required.
6.3 It is recommended that patients are informed of their role in safe medication use and monitoring effectiveness.
6.4 **Monitoring first doses of new medications:**
   a. The effects of all medications will be assessed and evaluated, whether the first dose or last dose.
   b. Higher likelihood of an adverse reaction to a medication that's new to a patient than to a medication the patient has successfully taken in the past.
   c. Clinical laboratory tests may also be ordered as appropriate to monitor patient's response.
6.5 **Monitoring patients receiving IV medications**:are expected to address, but are not limited to the following:
   1. **Monitoring for Fluid & Electrolyte Balance:**
      Whenever IV medications and blood transfusions are administered, the patient may become at risk for fluid and electrolyte imbalance. The patient will be monitored and treated for fluid and electrolyte imbalances that may occur with blood transfusions and IV medications.

2. **Monitoring Patients Receiving High-Alert Medications, including IV Opioids:**
    a. The nurse will follow policies and procedures related to IV medication administration for those medications that have been identified as High-Alert medications and the monitoring requirements for patients receiving such drugs intravenously.
    b. Reassess the patient after medication administration and evaluate response.
    c. Notify physician if the patient develops undesirable reaction and report adequately on incident report or adverse event report according to the observed reaction.
3. **Patients receiving IV opioids post-operatively:** The effects of IV opioids in post-operative patients must be monitored via serial assessments of pain, respiratory status, and sedation levels.
    - Monitor high-alert medications, including IV opioids.
    - Address the process for patient risk assessment including:
        a- Who conducts the assessments
        b- Monitoring frequency based on the results of the assessment
        c- Duration
        d- What is to be monitored
        e- Monitoring methods
4. **The frequency of the serial assessments and duration of the monitoring must be determined based on the following considerations:**

a- Patient risk for adverse events;
b- Opioid dosing frequency and IV delivery method. (push or patient-controlled analgesia (PCA));
c- Duration of IV opioid therapy.

6.6 **Monitoring must at a minimum include the following:**
a- Perceived efficacy (e.g., Pain relief after administration of an analgesic).
b- The medication's effect on patient's clinical condition (clinical response).
c- The medical record relevant lab results; blood count, liver and renal functions and other relevant therapeutic monitoring parameters.
d- The patient's perception of side effects to the first dose of a new medication.
e- Unanticipated drug-drug interactions.
f- Changes in the patient's equilibrium that may raise the risk of falls.
g- Allergic reactions including documentation and flagging of medical records.

6.7 The assessment and monitoring process will be explained to the patient and/or the patient's representative, to communicate the rationale for vigilant monitoring, including that it might be necessary to awaken the patient in order to assess effects of the medications.

6.8 In addition, educate the patient and his representative or family members about notifying nursing staff promptly when there is difficulty breathing or other changes that might be a reaction to medication.

6.9 In addition to vigilant nursing assessment at appropriate intervals (nursing staff are required to spend more time at the bedside after first doses), the hospital may

choose to use technology to support effective monitoring of patients' respiratory rate and oxygen levels.

6.10 **Sharing Information:**

a. Communication between physicians and health-care providers is recommended to ensure that good patient care is provided.
b. If the patient has a primary care provider, it is important for that provider to have all relevant information about his or her patient. This includes information about drugs prescribed for the patient

7.0 FORMS

7.1 N/A.

8.0 EQUIPMENT

8.1 N/A.

9.0 REFERENCES

9.1 CBAHI Resource Manual.

9.2 ASHP guidelines on ADR monitoring and reporting.