5.1 ADMINISTRATION OF ORAL MEDICATION

1. INTRODUCTION

The leading cause of patient harm is medication error, which accounts for almost 6 percent of medical injuries. (Annual Report Pharmacy Program, MOH, 2017)

“First, do no harm” is the ethical imperative for every patient safety effort. In working towards reducing the frequency of medication errors, priority should be given to prevent errors which contribute any potential for harm.

The definition of a medication error as approved by the National Coordinating Council for Medication Error and Prevention is:

". . .any preventable event that may cause or lead to inappropriate medication use or patient harm, while the medication is in the control of the health care professional, patient, or consumer. Such events may be related to professional practice, health care products, procedures, and systems including: prescribing, order communication, product labeling, packaging and nomenclature, compounding, dispensing, distribution, administration, education, monitoring, and use."


Administering oral medications is a core function of nurses. Their responsibility is to comply with safe medication use processes and practices in order to prevent occurrence of medication errors / misadventures.
2. **STANDARD**
   2.1. Patient does not experience medication errors during hospitalization.

3. **OBJECTIVES**
   3.1. All medications are served according to the 7 R's of medication administration.
      - Right patient
      - Right drug
      - Right dose
      - Right route
      - Right time
      - Right documentation
      - Right to refuse

   3.2. Nurses exhibit the caring component during the administration of oral medication.

   3.3. Nurses document the medication administered accurately and completely.
4. **CRITERIA**

<table>
<thead>
<tr>
<th>Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Each patient has current written prescription / medication profile.</td>
</tr>
<tr>
<td>2. There is a Standard Operating Procedure (SOP) for administration of oral medication.</td>
</tr>
<tr>
<td>3. The nurse is competent in serving medication, has knowledge on the effect, adverse drug reaction and the appropriate measures to be taken when there is an adverse reaction.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Greet / acknowledge patient.</td>
</tr>
<tr>
<td>2. Identify right patient.</td>
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<tr>
<td>3. Verify prescription.</td>
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<tr>
<td>4. Assess patient, take appropriate nursing measures and document accurately.</td>
</tr>
<tr>
<td>5. Dish out the correct medication using 3 CHECKS:</td>
</tr>
<tr>
<td>5.1 Before dishing out</td>
</tr>
<tr>
<td>5.2 During preparation</td>
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<tr>
<td>5.3 After preparation</td>
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<tr>
<td>6. Explain and inform patient.</td>
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<tr>
<td>7. Listen/Responds promptly and politely to patient's /carer's questions.</td>
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<tr>
<td>8. Serve and ensure patient consume the medication.</td>
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<tr>
<td>11. Take appropriate measure if adverse reaction is identified.</td>
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</tbody>
</table>
5. METHODOLOGY

5.1 Design: Direct observation of nurse administering oral medication and also gather information from documents

5.2 Setting: All wards

5.3 Inclusion criteria: Medication served to all in-patient

5.4 Exclusion criteria: Medication served to out-patient/ unconscious/ mentally challenged patients

5.5 Population: Registered Nurse

5.6 Sample Design: Convenient sampling

5.7 Sample size: 30% of registered nurse working in patient area

5.8 Time frame: 6 weeks

5.9 Instrument: Audit Form (E5 AF 5.1) — one audit form for one observation

### Outcome

1. Patient received safe medication administration during hospital stay.
2. Patient was informed of his/her medication.
3. All medications are served according to 7 Rights (7Rs) of medication administration.
4. Medication errors are detected early and appropriate measures taken accordingly.
5. Accurate and complete documentation.
6. DEFINITION OF OPERATIONAL TERMS

6.1. WRITTEN PRESCRIPTION

Any legal orders of oral medication endorsed in patient’s medication profile and patient’s case notes.

6.2. MEDICATION PROFILE

Legal document where the doctor prescribes and the nurse endorse the administration of the medication.

6.3. IDENTIFY RIGHT PATIENT

6.3.1 Confirm patient’s identity by 2 identifier:

6.3.1.1 patient’s full name
6.3.1.2 registration or identification number

6.3.2. Ask patient to verbalize his/her name and cross check:

6.3.2.1 with patient’s wrist band for name and registration number or identification number .
6.3.2.2 verify accuracy of identifier with patient’s medication profile/Hospital Information System.

6.4. VERIFY WRITTEN PRESCRIPTION BY CHECKING FOR :

6.4.1. Correct patient’s name and registration number
6.4.2 Drug – generic name, dose, frequency, route, duration
6.4.3 Prescribing doctor – name, signature, and date ordered

6.5. ASSESSMENT OF PATIENT PRIOR TO ADMINISTRATION OF ORAL MEDICATION

6.5.1. Nurses need to determine the patient’s current status prior to administration of selected medication to confirm its continuity by interviewing the patient and from observation charts e.g. Anti-hypertensive drugs, oral hypoglycemic agents, digitalis, analgesics, antipyretics and beta-blockers.

6.5.2 Nurses when assessing the patient will exhibit the caring
component by explaining the intended procedure in a respectful manner.

6.6. DISH OUT MEDICATION ACCURATELY

6.6.1. Read patient’s medication profile (right patient).
6.6.2. Select required medication (right medication).
6.6.3. Calculate dosage before dishing out (right dosage).

6.7. RIGHT TIME

6.7.1. An allowance of ± 1 hour (according to priority)
6.7.2. Initial dose served within a maximum of 1 hour upon prescription / acquisition of medication and subsequent doses according to time as stated in SOP of the unit / ward.

6.8. RIGHT ROUTE

Correct method of consuming various type of oral medication, example:

I. Tab. Magnesium Trisilicate - chewable
II. Tab. Glyceryl Trinitrate - sublingual
III. Lugol’s Iodine – straw

6.9 RIGHT TO REFUSE

Patient has the right to refuse the medication prescribed. When patient verbalize refusal, the following nursing action shall be taken:

6.9.1 Identify reason for refusal and reinforce on importance of consuming the drug.
6.9.2 If patient still refuse, inform doctor and document.
6.10. SERVE MEDICATION

Nurses ensure patient consume their medication upon administration. However, for medications that need to be consumed after / with meal, clear explanation must be provided. The nurse needs to follow up to ensure those medications are taken accordingly before documentation.

6.11. RIGHT DOCUMENTATION

Accurate and complete documentation of the following:

6.11.1 Record assessment findings if applicable.

6.11.2 Date and time of administration must be indicated in the medication profile.

6.11.3 Signature of nurse who served medication endorsed in the appropriate column.

6.11.4 All drugs omitted/refused, indicated in the medication profile.

6.11.5 Document explanation of any omitted dose / medication refused in patient’s case notes.

7. RATING SYSTEM

7.1 TECHNICAL COMPONENT

Medication compliance to technical component includes all of the following:

7.1.1 Identify right patient.

7.1.2 Verify written prescription.

7.1.3 Perform assessment, if applicable.

7.1.4 Read patient’s medication profile.

7.1.5 Select required medication from patient’s drawer of medication cart.

7.1.6 Calculate dosage before dishing out medication.

7.1.7 Re-verify identity of right patient.

7.1.8 Serve medication.

7.1.9 When patient refuse to take the medication, the nurse need to inform doctor and document omission for refusal. [ if applicable ]
7.2 **SOFT SKILL COMPONENT**
Conformance is verified by direct observation and listening to the nurse.

7.2.1 Greet / acknowledge patient – verbal / non verbal.
7.2.2 Explanation prior assessment, if applicable.
7.2.3 Respond promptly and politely to patient’s / carer’s questions.

7.3 **DOCUMENTATION COMPONENT**
Accurate and complete documentation compliance included all of the following for D9 (Checklist):

7.3.1 Document assessment findings, where applicable.
7.3.2 Document medication served/omitted - date, time and signature.
7.3.3 Document omission for refusal, where applicable.
7.3.4 Document communication with doctor, where applicable.

7.4 **SCORE**

7.4.1 Conformance Standard : 100% which include:-
- Technical skill : 100%
- Documentation : 100%
- Soft skill : 100%

7.4.2 Non – conformance : 0%

**Overall marks ( % of Technical skill + % documentation + % soft skill ÷ 3)**
8. **AUDIT FORM**

<table>
<thead>
<tr>
<th>NATIONAL NURSING AUDIT MINISTRY OF HEALTH MALAYSIA</th>
<th>VERSION 6/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELEMENT 5 : CONTINUUM OF CARE</strong></td>
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<tr>
<td><strong>TOPIC : 5.1 ADMINISTRATION OF ORAL MEDICATION</strong></td>
<td><strong>DATE : 11 April 2019</strong></td>
</tr>
<tr>
<td><strong>DOCUMENT NO : E5 AF 5.1</strong></td>
<td><strong>PAGE No. 1/4</strong></td>
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</tbody>
</table>

**8.1 STANDARD:**

Patient does not experience medication errors/misadventures during hospitalization.

**8.2. OBJECTIVES:**

8.1 All medication served according to 7 Rights (7R's) medication administration.

8.2 Nurses exhibit the caring component during the administration of oral medication.

8.3. Nurses document accurately and completely the medication administered.

**Date of Audit :**

**Locality :**

**Auditors:**

1. ........................................

2........................................
**N.B. Instructions for Auditors**

1. To tick [ √ ] at appropriate column.
2. S / T/ D indicate soft skill / technical skill / documentation respectively.
3. Item 5, is rated as N/A if no specific nursing measures required.
4. Item D 8.1, is rated as N/A if patient does not refuse medication.

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEM</th>
<th>SOURCE OF INFORMATION</th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2.</td>
<td>Identify right patient.</td>
<td>Listen / Observe nurse.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T3.</td>
<td>Verify written prescription</td>
<td>Observe nurse.</td>
<td></td>
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<tr>
<td>4.</td>
<td>Assess patient.</td>
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<tr>
<td>S4.1</td>
<td>Explain prior to assessment</td>
<td>Observe nurse and listen to conversation</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>T4.2</td>
<td>Perform assessment</td>
<td>Observe nurse and verify finding</td>
<td></td>
<td></td>
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<tr>
<td>T5.</td>
<td>Dish out correct medication :</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T5.1.</td>
<td>Read patient’s medication profile</td>
<td>Observe nurse and verify right patient and right time.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>T5.2.</td>
<td>Select required medication from patient’s drawer of medication cart <em>(3 CHECKs)</em></td>
<td>Observe nurse and verify findings for the right medication</td>
<td></td>
<td></td>
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<tr>
<td>T5.3.</td>
<td>Calculate dosage before dishing out <em>(Optional for unit of dose drugs)</em></td>
<td>Observe nurse and verify findings for the right dose</td>
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<tr>
<td>S/N</td>
<td>ITEM</td>
<td>SOURCE OF INFORMATION</td>
<td>YES</td>
<td>NO</td>
<td>N/A</td>
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<tr>
<td>T7</td>
<td>Administer medication:</td>
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<td></td>
<td>T7.1 Re-verify identity of right patient.</td>
<td>Listen and observe nurse.</td>
<td></td>
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<td></td>
<td>T7.2 Serve medication</td>
<td>Listen and observe medication serve via the right route.</td>
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<tr>
<td>D8</td>
<td>When patient refuse to take medication, the nurse need to take the following actions:</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>D8.1 Document omission reasons for refusal</td>
<td>Verify findings</td>
<td></td>
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<tr>
<td>D9</td>
<td>Accurate and completeness of documentation</td>
<td>Check document</td>
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</tr>
</tbody>
</table>

**AUDIT REPORT**

*(please [✓] the appropriate box)*

**Rating:**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Item</th>
<th>Conformance</th>
<th>Non conformance</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documentation</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soft skill</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>13</td>
<td></td>
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</tr>
</tbody>
</table>

**REMARKS:**

Auditor 1 (name and signature): .....................................................

Auditor 2 (name and signature): .....................................................

**Calculation:**  

\[ \text{Item conformance} \times 100 \]

Total item – item N/A
Example:

**Calculation:**

- **Item conformance** \( \times 100 \)
- Total item – item N/A

Technical:  \( \frac{6}{8} \times 100 = \frac{600}{6} = 100\% \)

Documentation:  \( \frac{2}{2} \times 100 = \frac{200}{2} = 100\% \)

Soft skill:  \( \frac{1}{3} \times 100 = \frac{100}{3} = 33.3\% \)

<table>
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<th>Non conformance</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical</td>
<td>8</td>
<td>100%</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Documentation</td>
<td>2</td>
<td>100%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Soft skill</td>
<td>3</td>
<td>33.33%</td>
<td>66.67%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>13</td>
<td>(100 + 100 + 33.33 = 233.33 ÷ 3) = 77.78%</td>
<td>(0 + 0 + 66.67 ÷ 3) = 22.22%</td>
<td>(2 + 0 + 0 = 2 ÷ 3) = 0.67%</td>
</tr>
</tbody>
</table>

Note: To minimize N/A as much as possible. The nurse can be lead to answer if situation arises.