PRACTICAL GUIDE FOR NURSING STUDENTS
Novice to expert Nurse Made Easy!
The TTSH Practical Guide for Nursing Students is designed to provide useful general information to all students. The information within this guide is accurate and current at the time of printing. However in the event of differences between the information provided here with current hospital practice, please follow the protocols and guidelines set out in Route 21.
This book belongs to
The indefatigable spirit of nurses is manifest in their ceaseless energy and compassion in caring for others. Regardless of the situation, such as during the period of SARS, our nurses rose equally to meet the challenges head-on.

At Tan Tock Seng Hospital, we believe in and invest heavily in the training of all our nurses and nursing students. It is with this in mind that the fourth edition of the TTSH Practical Nursing Guide for Nursing Students was produced – to equip all students with easily accessible information to facilitate the learning experience.

It is my sincere desire that you will share and participate in our vision of professional excellence for all nurses. Best wishes for your future.

Dr. Lim Suet Wun
Chief Executive Officer
Tan Tock Seng Hospital
National Healthcare Group
PREFACE

Welcome to the large fraternity of healthcare professionals at Tan Tock Seng Hospital! As you embark on your training journey with us, we hope you will enjoy a fruitful time of learning, sharing and growth. It is my desire that you will regard yourself as a caring and essential member of our healthcare team.

This practical guide was specially designed with you, the nursing student, in mind. It is meant to provide you with quick, useful information and references, to ease your transition from a novice to an expert nurse. I hope you will find this guide useful.

I wish you every success in your endeavours

Kwek Puay Ee
Director of Nursing
Tan Tock Seng Hospital
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<td>Useful Resources</td>
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<td>My Notes</td>
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</tbody>
</table>
GUIDELINES FOR NURSING TRAINEES
CLINICAL ATTACHMENT IN TTSH

INSTRUCTIONS TO STUDENTS

All students attached to TTSH must undergo hospital-based induction programme during their 1st time attachment with the hospital.

1. Hospital Expectations:
   - Observe professional behaviour and conduct at all times during attachment in hospital (Right attitude to learn)
   - Grooming – uniform code, hair neat and tidy, fingernails short and trimmed
   - Greet and acknowledge staff and patients.
   - To be equipped with scissors, pen torch, nurses’ watch.
   - No unnecessary change of roster/duty.
   - Clinical logbook – own responsibility to update daily.
   - **DO NOT** idle along corridors, round table or cubicles not assigned to students
   - Patient Safety – call bell within reach, both cot sides up, and lock wheels at all times, do rounds to check on patients.
   - Seek **constant supervision** from trained nurses or assigned Clinical Instructor (CI) when carry out procedures.
   - Report to the ward staff on your whereabouts, i.e. meal break, off duty, accompanying patient.
   - Handover of report to next person (students/staff) before leaving the ward (e.g. at meal break, off duty or sending cases)
   - Confidentiality
     - Do not leave charts unattended
     - To ask permission if taking case notes for case study or references.
     - Do not disclose patient’s information to others unless permission given by authorised personnel.
   - To report to ward and CI in charge if unwell (e.g. fever) and submit Medical Certificate to CI for verification.
   - To use **BLACK** ball-point ink for all documentation
   - To **RECOGNISE AND INFORM** all abnormalities (e.g. vital signs, patient’s condition)
   - Send patients out of ward not more than 2x/ shift (with ward staff)

2. STRICTLY observe Hospital Infection Control Protocol
   - Strict Hand washing/ Hand rub - before and after every patient.
   - To wear **BLUE** apron when feeding via NGT and diet serving/feeding.

3. Safekeeping of personal belongings
CLINICAL INSTRUCTOR’S GUIDELINES FOR NURSING TRAINEES CLINICAL ATTACHMENT IN TTSH

INSTRUCTIONS TO STUDENTS

1. Punctuality
   • **STRICT** Punctuality
   • To be in the **ward 10mins early**
   • Check patients/ clinical charts/ IMR
   * **Note:** repetitive latecomers - serious action will be taken

2. Learning objectives and Daily Learning Plan:
   • To set learning objectives prior to clinical attachment (CA) and produce on Day 1 of CA.
   • Give daily learning objectives (responsible for own learning objectives and ensure objectives met)
   • Keep track of own learning objectives
   • Obtain ongoing feedback from staff or Nursing officer
   • Do daily reflections (refer to ‘A Reflection Framework’)
     – Keep and file till end of posting
     – CI will review
   • Do self-learning
     – Take initiative to find out information

3. Cubicle nursing assignment (max 6 pts)
   • Refer to ward assignment book daily
     – Identify the nurses’ in-charge of the team
     – Know the names of the staff in the team
   • To follow cubicle nursing as assigned
   • Weekly change of cubicle as assigned (if applicable)
   • Identify pending patient care activities or procedures
   • Perform patient rounds before and after taking report

4. Planned Clinical In-service sessions
   • **PRE-READING** is required

5. Case study (refer to page 7 to 9)
   • Select a case during CA
   • CI will brief and schedule date of presentation

6. Student must be certified competent on hand washing
CASE STUDY GUIDELINES

1. **Name**
   - Generic names only to maintain confidentiality (e.g. Mdm. Tan)
   - No bed number during discussion
   - Age / Gender / Race / Date of admission

2. **Diagnosis**
   - Chief complaints
   - Past medical history (PMhx)
   - Impression or Diagnosis (Imp./Δ)
   - Drug allergy (e.g. NKDA = no known drug allergy)

3. **Social History / Background**
   - Examples: smoker, social drinker, stays in 4 room flat, married, family tree, contact history (i.e. Visits commercial sex worker, sexually active, single partner, frequent visits to Batam, etc.)

4. **Overall examination** (includes vital signs on admission)

5. **APIE Format:**
   - **ASSESSMENT**
     - Identify Pt’s sign and symptoms
     - Discuss briefly the pathophysiology of the disease
     - List pt’s course of treatment
     - List or identify nursing care needs (e.g. breathing problems, impaired nutrition needs, impaired mobility, risk of falls, etc…)
     - List nursing implications of medication treatment, diagnostic and lab results
     - Assess factors affecting pt’s ability to meet needs
     - Identify pt’s at risk for complications

   - **PLANNING**
     - Identify expected outcomes and therapeutic nursing interventions, including early discharge planning
     - Identify appropriate care planning

   - **IMPLEMENTATION**
     - Outline care plan according to priority of pt’s needs
     - Address the need for pt safety
     - Identify appropriate nursing interventions
     - Identify strategies to assist the patient in achieving outcomes

   - **EVALUATION**
     - Evaluate effects of nursing interventions
     - Adjust care to potential problem
     - Document the plan of evaluation of care
TEMPLATE FOR BEDSIDE CASE STUDY

Physical Assessment

1. Please indicate patient’s problems on the diagram.

   |   |   |
---|---|---|
Head | Toe |

2. General Information

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<tbody>
<tr>
<td>Admission Date:</td>
<td>Age:</td>
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<td>Mode of Arrival:</td>
<td>Sex:</td>
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<td>Source of Referral:</td>
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<td>Primary care-giver:</td>
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<td>Allergy (drug/ food):</td>
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<tr>
<td>Religion:</td>
<td>Language:</td>
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<td>Police Case:</td>
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<tr>
<td>Smoking Habit:</td>
<td>Drinking Habit:</td>
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<tr>
<td>Past Medical History:</td>
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</tbody>
</table>
3. Chief Complaint(s)

4. Diagnosis and Clinical presentation (Signs & Symptoms)

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Signs and Symptoms</th>
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5. Pathophysiology

6. Current Treatments/Investigations (explain why patient requires the procedure)

<table>
<thead>
<tr>
<th>Drug name</th>
<th>Dosage</th>
<th>Route</th>
<th>Indication</th>
<th>Side Effects</th>
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7. Nursing Care Plans

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<tr>
<th>Problems</th>
<th>Intervention</th>
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A REFLECTIVE FRAMEWORK ADAPTED FROM JOHN’S STRUCTURED REFLECTIVE MODEL AND GIBB’S ITERATIVE REFLECTIVE MODEL

This model is based on “reflective-on-action”. In this model, one reflects on an event that has occurred, with the aim that the event provides a learning experience. It is a process cycle to promote cognitive activities/actions.

1. DESCRIPTION
• Describe a learning incident

2. FEELINGS
• What were your thoughts and feelings?
• How did you respond to the situation?

3. EVALUATION
• What factors influenced your decision making and actions?
• Did your actions match your beliefs and knowledge?
• What were the consequences of my actions:
  – For the patient and family
  – For myself
  – For my colleagues

4. ANALYSIS
• How does the present action connect with your previous and future experiences

5. ALTERNATIVE STRATEGIES
• Could you have done better with the situation?

6. LEARNING
• How do you feel about this experience?
• If it arose again, what would you do?
• Can you identify any change of behaviour/action?
TAN TOCK SENG HOSPITAL
NURSING STUDENT CORE SKILLS CHECKLIST

<table>
<thead>
<tr>
<th>No.</th>
<th>Topics:</th>
<th>Competency achieved by Year:</th>
<th>Discipline</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NYP</td>
<td>NP</td>
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<tr>
<td>1</td>
<td>Infection Control</td>
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<tr>
<td></td>
<td>a. Hand washing (medical/surgical)</td>
<td>1</td>
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<tr>
<td>2</td>
<td>Nutrition and Hydration</td>
<td></td>
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<tr>
<td></td>
<td>a. Dysphagia and Preparation of feeding consistencies</td>
<td>1</td>
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<td></td>
<td>b. Insertion of naso-gastric tube</td>
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<td></td>
<td>c. Nasogastric feeding protocol</td>
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<td></td>
<td>d. Intravenous Therapy</td>
<td></td>
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<tr>
<td></td>
<td>i. Care of IV cannulas - phlebitis prevention guidelines</td>
<td>*1, 2</td>
<td>2</td>
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<td></td>
<td>ii. Types and uses of IV devices</td>
<td>1, 2</td>
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<td></td>
<td>iii. Types of IV drips and its functions</td>
<td>1, 2</td>
<td>1</td>
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<tr>
<td></td>
<td>iv. Setting up of IV drips and IV burettes</td>
<td>1, 2</td>
<td>1</td>
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<td></td>
<td>v. Care of patient on blood transfusion</td>
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<td></td>
<td>e. Care of Central Venous Lines</td>
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<tr>
<td></td>
<td>i. Care of PICC</td>
<td>*1, 2</td>
<td>2</td>
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<td></td>
<td>ii. Care of Central Venous Catheter (CVC)</td>
<td>2, 3</td>
<td>3</td>
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<td></td>
<td>iii. CVP monitoring</td>
<td>*2, 3</td>
<td>3</td>
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<tr>
<td>3</td>
<td>Equipments: Care and Its Functions</td>
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<tr>
<td></td>
<td>a. Blood pressure monitoring devices</td>
<td>1</td>
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<td></td>
<td>b. Pulse oximeter</td>
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<td></td>
<td>c. Feeding pump</td>
<td>*1, 2</td>
<td>1</td>
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<td></td>
<td>d. Suction apparatus</td>
<td>1</td>
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<td></td>
<td>e. AlphaXcell mattress</td>
<td>1</td>
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<td></td>
<td>f. Lifting devices</td>
<td>1</td>
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<tr>
<td></td>
<td>i. Sliding sheets</td>
<td>1</td>
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<td></td>
<td>ii. Hoist</td>
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<td></td>
<td>g. Baxter pump/ Volumetric Infusion</td>
<td>2</td>
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<td></td>
<td>h. Syringe pump</td>
<td>2</td>
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<td></td>
<td>i. Humidification for oxygen therapy</td>
<td>3</td>
<td></td>
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<tr>
<td></td>
<td>j. Glucometer</td>
<td>*1, 2</td>
<td>1</td>
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### Wound Care and Products

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<tr>
<td>k.</td>
<td>Portable Oxygen tank - Use and maintenance</td>
<td>1</td>
<td>All</td>
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<tr>
<td>l.</td>
<td>Use of incentive spirometry</td>
<td>*1, 2</td>
<td>2 1 2 All</td>
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<tr>
<td>m.</td>
<td>Use of peakflow meter</td>
<td>*1, 2</td>
<td>2 1 2 RM</td>
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### Operation/Procedure Care

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<th>Competency achieved by Year</th>
<th>Discipline</th>
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<tbody>
<tr>
<td>a.</td>
<td>Preoperative management</td>
<td>*1, 2</td>
<td>2 1 1 NS/GS/Ortho</td>
</tr>
<tr>
<td>b.</td>
<td>Bowel preparation</td>
<td>*1, 2</td>
<td>2 1 1 GS</td>
</tr>
<tr>
<td>c.</td>
<td>Documentation related to surgery-Pre op checklist, anaesthetist record, post-operation record</td>
<td>*1, 2</td>
<td>2 1 1 NS/GS/Ortho</td>
</tr>
<tr>
<td>d.</td>
<td>Post operative management</td>
<td>*1, 2</td>
<td>2 1 1 NS/GS/Ortho</td>
</tr>
<tr>
<td>e.</td>
<td>Post operative pain management: pharmacology and pain assessment</td>
<td>*1, 2</td>
<td>2 1 1 NS/GS/Ortho</td>
</tr>
<tr>
<td>f.</td>
<td>Use of Patient Controlled Analgesics (PCA) pump and documentation</td>
<td></td>
<td>GS/Ortho</td>
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<td>g.</td>
<td>Application of Anti-Embolic Stocking (AES)</td>
<td>1</td>
<td>GS/Ortho</td>
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<td>h.</td>
<td>Care of patient pre and post lumbar puncture, bone marrow aspiration and/or other invasive procedures</td>
<td>2</td>
<td>NS/Medical</td>
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### Hospital Documentation:

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<th>Competency achieved by Year</th>
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<tbody>
<tr>
<td>a.</td>
<td>Clinical documentation</td>
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<td>All</td>
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<tr>
<td>b.</td>
<td>Nursing Assessment Record (NAR)</td>
<td>1</td>
<td>All</td>
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<tr>
<td>c.</td>
<td>Patient Care Record (PCR)</td>
<td>2</td>
<td>2 2 All</td>
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<tr>
<td>d.</td>
<td>Clinical pathway</td>
<td>2</td>
<td>NS/NL</td>
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# TAN TOCK SENG HOSPITAL
## NURSING STUDENT CORE SKILLS CHECKLIST

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<td>NYP</td>
<td>NP</td>
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<tr>
<td>6.</td>
<td>Surgical carepath</td>
<td>*1,2</td>
<td>2</td>
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<tr>
<td>7.</td>
<td>Medical carepath</td>
<td>*1,2</td>
<td>2</td>
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</tbody>
</table>

### Administration of medicines

a. Oral/ Intranasal/ Eye/ Ear

| *1,2 | 2 | 1 | 2 | All |

b. Suppositories/fleet enema

| *1,2 | 2 | 1 | 1 | All |

c. Subcutaneous

| *1,2 | 2 | 2 | 2 | All |

d. Intramuscular

| *1,2 | 2 | 2 | 2 | All |

e. Intravenous

| 3 | 2 | All |

f. Nebuliser

| *1,2 | 2 | 1 | 2 | RM |

9. Use of different types of inhalers

| RM |

   | turbo-inhaler | *1,2 | 2 | 1 | 1 | RM |

   | metered dose inhaler | *1,2 | 2 | 1 | 1 | RM |

   | acu-inhaler | *1,2 | 2 | 1 | 1 | RM |

   | Use of spacer / aerochamber | *1,2 | 2 | 1 | 1 | RM |

   | Giving inhalers/ nebuliser for patients with tracheostomy | *1,3 | 3 | 3 | - | RM |

### Care of Patients with Respiratory Conditions

| All/RM |

   | Oxygen therapy: care and understand various oxygen devices | 1 | All/RM |

   | Assist in insertion and removal of chest tube | 2 | All/RM |

   | Perform chest tube dressing | 2 | All/RM |

   | Chest tube monitoring chart | 2 | All/RM |

   | Perform oro-pharyngeal suctioning | 1 | All/RM |

   | Pulmonary function test (observe in the respiratory lab) | 3 | RM |

9. Management of Patient with Cardiac-related Conditions

| CVM |

   | Care of patient pre and post angiogram | 2 | CVM |

   | Observe Invasive Cardiac intervention (one case) | 3 | 2 | CVM |

   | Perform 12 Leads ECG | 2 | CVM |
## TAN TOCK SENG HOSPITAL NURSING STUDENT CORE SKILLS CHECKLIST

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<td>NYP</td>
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<td>10</td>
<td><strong>Management of Patient with Elimination Problems</strong></td>
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<td>2</td>
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<tr>
<td></td>
<td>a. Perform Urinary Catheterisation (Female only)</td>
<td>*1, 2</td>
<td>2</td>
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<td></td>
<td>b. Care of patient on bladder washout</td>
<td>*1, 2</td>
<td>2</td>
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<td>11</td>
<td><strong>Orthopaedic/Neurologic Care</strong></td>
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<td></td>
<td>a. Neurovascular assessment</td>
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<td>b. Care of patient on traction</td>
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<td>c. Neurological assessment</td>
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<td>d. Use of cervical collar</td>
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<td>e. Perform spinal nursing</td>
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<td>f. Care of patient with EVD</td>
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<td>12</td>
<td><strong>Tracheostomy Care</strong></td>
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<td></td>
<td>a. Perform tracheostomy suctioning</td>
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<td></td>
<td>b. Perform tracheostomy dressings and cleaning of inner cannula</td>
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<td>13</td>
<td><strong>Resuscitation</strong></td>
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<tr>
<td></td>
<td>a. Checking E-trolley, Defibrillator and Laerdal resuscitator</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Management of coroner and non coroner case (mortuary)</td>
<td></td>
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</tr>
</tbody>
</table>

- This is a generic competency checklist. Not all students will achieve competency in all the areas highlighted above. Tailored competency checklists are available depending on the program the student is enrolled in (e.g. certificate, diploma, degree).

- Students are expected to learn **AT LEAST 10 MEDICATIONS** [indications, side effects, management, contraindications] per week during their attachment.

- * Refer to the Pre-Conversion programme (PCP) nursing student.
# Template for Daily Report Taking

| **Bed:** |  |
| **Name:** |  |
| **Δ:** |  |

**Med History:**

**Plan:**

- Risk of fall: Y / N / CRIB / RIB /

**Parameters/SpO₂:**

**O₂ Therapy**

**Diet:** ORAL / NBM / NGT / PEG

**Diet / Enteral Feeds:**

**NGT due:**

**IV plug due:**

**IV fluid (hr):**

**Dressing:**

**Inx:** FBC / U / E / Cr / Bld C / S

- Urine FEME / Urine C / S
- Stool
- Sputum
- Others:

**Procedure:**

**Others:**
DAILY LEARNING PLAN

Objectives


Things to follow-up:

<table>
<thead>
<tr>
<th>Abbreviations</th>
<th>Procedures</th>
<th>Medications</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

Reflections


STUDENTS NURSES’ ASSIGNMENT DURING SHIFT (CUBICLE BASED CARE DELIVERY)

AM Shift

• Take cubicle patients’ report

• Discuss care activities for patients to carry out with team principal nurse (PN) & enrolled nurse (EN):
  * Greet cubicle patients and introduce self
  * Perform Clinical Assessment:
    - Vital signs
    - Fall Risk
    - IV drip & cannula site
    - Urinary output (bag)
    - Dressing site, Drains & patency
    - Skin traction alignment
    - Skin integrity
  * Oral hygiene care
  * Assist patients to sit out of bed/sit up in bed
  * Serve Breakfast (Watch for NBM)
  * Assist PN in:
    - Medication (prepare and serve for year 2 and 3)
    - NG tube feeding
  * Participate in Drs’ ward round
  * Hygiene care (Bed / Toilet)
  * Blood glucose monitoring
  * Wound Care
  * Treatment Plan/s for the day
  * Receive and assess:
    - New admissions
    - Transfers in cases
    - Post operative cases
  * Attend to patients’ needs
  * Documentation:
    - Charts and Records
    - Patient care record (PCR)
  * Update Headboards
STUDENTS NURSES’ ASSIGNMENT DURING SHIFT
(CUBICLE BASED CARE DELIVERY)

PM Shift
• Take over report from AM Shift (from both Staff Nurse and Student)
• Discuss care activities for patients with team PN & EN:
  * Hygiene care (Bed / Toilet)
  * Blood glucose monitoring
  * Wound Care
  * Treatment Plan(s) for the day
  * Greet cubicle patients and introduce self
• Perform Clinical Assessment:
  - Vital signs
  - Fall Risk
  - IV drip & cannula site
  - Urinary output (bag)
  - Dressing site
  - Drains & patency
  - Skin traction alignment
  - Skin integrity
  * Oral hygiene care
• Assist PN in:
  - Medication (for year 2 and above)
  - NG tube feeding
• Receive and assess:
  - New admissions
  - Transfer-in cases
  - Post operative cases
• Attend to patients’ basic needs and diet serving (observed nil by mouth) (NBM)
• Participate in Dr’s ward round
• Documentation:
  - Charts and Records
  - PCR
• Provide blanket for each patient during bedtime
• Update headboards
## Infection Control Practices in Enteral Feeding

<table>
<thead>
<tr>
<th></th>
<th>Bolus Feeding</th>
<th>Intermittent Feeding</th>
<th>Continuous Feeding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparatory Phase</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Clean surface area (wipe down)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Scald the feeding jug</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Swab the rim of the feeding bag with non-touch technique</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Indicate bed number, patient's surname with initial (e.g. Lee S L), date and time of opening milk can.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hand Hygiene</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Performance Phase</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Don Latex Gloves And Blue Apron</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Swab before connection and disconnection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Hub</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Spigot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Luer adapter of the administration set</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Tip of the syringe</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-Touch Technique</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Pouring feeds into syringe or administration set</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Connecting the Luer adaptor to Enteral feeding tube</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Follow-up Phase</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Cleanse/ rinse the residual feeds in the feeding bag with cool-boiled water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Change syringe, administration set, disposable tray and cup daily</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Remove Apron and Glove</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hand Hygiene</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ENTERAL FEEDING

Check Tube Placement

1. Perform Infection control practices in enteral feeding.

2. CONFIRM TUBE PLACEMENT before every bolus / intermittent / continuous feeding by the following method(s):

2.1 Aspirate gastric residue (pull back plunger) with the syringe and test with pH indicator. Observe visual characteristic of gastric aspirate. Gastric aspirate most likely yields a pH value of 1 to 6 (Nature of gastric residue: yellow, lime green, off-white, brown or bloody.)

If there is NO ASPIRATION, do the following:

2.2 Re-examine back of the oral cavity for tube coiling. If tube is not coiled in the mouth, re-attempt to aspirate.

If there is NO ASPIRATE,

2.3 Attempt to position patient in side lying position, if able to and not contraindicated. If there is aspiration, to reconfirm tube position with pH indicator.

If there is NO ASPIRATE,

2.4 Insufflate tube with about 20ml of air to dislodge tube from wall of stomach and reattempt to aspirate. If there is aspiration, to reconfirm tube position with pH indicator.

If STILL UNABLE TO OBTAIN ASPIRATE, do the following:

2.5 Decompress the stomach of residual air. Place the diaphragm of a stethoscope over the epigastrium. Inject about 20ml of air with a slight force into the tube. A “whoosing” sound can be heard when air enters the stomach.
ENTERAL FEEDING

2.6 In addition, to above method, immerse the open end of the NG tube in some water and observe for bubbles. Continuous bubbling sound should not be present in water.

2.7 If whoosing sound is not heard and continuous bubbling is present in water, 
• Discuss findings and seek for assistance from the doctor/senior staff to reattempt tube insertion.

NOTE: DO NOT RELY on auscultation of air and the water “bubbling” methods as SOLE methods of checking NG tube placement.

2.8 If in doubt and/or uncertain of proper position of tube, consult Dr to seek Radiological (CXR) confirmation of NG tube placement.

Assess tolerance to feed

Before each feed, COMPLETELY ASPIRATE ALL GASTRIC RESIDUE until no more gastric residue can be aspirated.

1. Note the amount and nature of the residue aspirated.

2. WITHOLD feeding. Return aspirate and INFORM doctor if:

2.1 Residual content is undigested or semi-digested feed or

2.2 Residual amount is > 120mls (bolus) or 2 times the target-feeding rate (intermittent-continuous / continuous) or as ordered by doctor and/or
3. **RE-CHECK** gastric residue 2 hours later. If gastric residue is still > 120 mls (bolus) or > 2 times the target-feeding rate (intermittent-continuous / continuous) or otherwise ordered by doctor

3.1 **STOP** feeding

3.2 Discard gastric residue

3.3 Place patient on nil by mouth (NBM)

3.4 Re-inform doctor

4. If gastric residue is < 120mls (bolus) or < 2 times the target feeding rate (intermittent-continuous / continuous) or otherwise ordered by the doctor, return the aspirated gastric residue into the stomach. If patient shows sign of breathlessness, restlessness, nausea, vomiting, diarrhoea or abdominal distension, **DO NOT RETURN** the aspirated gastric residue into the stomach.

**Administer feed – Bolus Feeding**

1. Feed only the amount required to make up the specified volume of bolus feed (including gastric residue and water flushes).

2. For e.g. if 180ml feed is to be tube fed and 50ml of gastric residue was aspirated, give only 130 ml of feed (including water) and return the 50ml of the aspirated gastric residue to the stomach.

3. Re-swab catheter tip of syringe, if necessary. Kink tube and attach syringe.

4. Hold the syringe at the level of the patient’s forehead. Fill syringe with the prescribe feed with non-touch technique. This position is necessary to avoid an increase in the pressure of fluid entering the stomach.

5. Refill feed in the syringe gradually. Do not allow the syringe to become empty during feeding to avoid introducing air into the stomach and causing abdominal distension.
## Quick Reference Guide to change of Products, Tubes and dressing

Refer to manufacturer’s recommendation, if indicated

### Urinary System

<table>
<thead>
<tr>
<th>Name</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Latex catheters</td>
<td>7 days</td>
</tr>
<tr>
<td>2. Siliconised catheters (Latex coated with 100% silicone)</td>
<td>Uroplast 7 days</td>
</tr>
<tr>
<td>3. Silicone Elastomer coated Latex catheters</td>
<td>Bardia 2 weeks</td>
</tr>
<tr>
<td>4. Hydrogel Coated Latex catheters</td>
<td>Bard 8 weeks</td>
</tr>
<tr>
<td>5. 100% silicone catheters</td>
<td>8 weeks</td>
</tr>
<tr>
<td>6. Urosheath</td>
<td>Daily</td>
</tr>
<tr>
<td>7. Urine Drainage Bag</td>
<td>2 weeks/PRN</td>
</tr>
</tbody>
</table>

### Gastro-Intestinal Tract System

<table>
<thead>
<tr>
<th>Name</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. NG Tube (Polyethylene)</td>
<td>Ideal Care 7 days</td>
</tr>
<tr>
<td>2. Flexi-Flow enteral Feeding Tube (Polyurethane)</td>
<td>Flexi-Flow 8 weeks</td>
</tr>
<tr>
<td>3. Percutaneous Endoscopic Gastrostomy (PEG)</td>
<td>Flexi-Flow/Bard 24 weeks</td>
</tr>
<tr>
<td>4. Percutaneous Endoscopic Jejunostomy Tube (PEJ)</td>
<td>32 weeks</td>
</tr>
<tr>
<td>5. PPN/TPN set (Infusion tubing and filter set)</td>
<td>24 hours</td>
</tr>
<tr>
<td>6. Enteral Feeding Set / Enteral Feeding Tray</td>
<td>24 hours</td>
</tr>
<tr>
<td>7. NG Tube Anchoring Tape</td>
<td>Daily / PRN</td>
</tr>
</tbody>
</table>

### Invasive Devices

<table>
<thead>
<tr>
<th>Name</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Peripherally Inserted Central Catheter (PICC)</td>
<td>Vaxcel 3-6 months</td>
</tr>
<tr>
<td>2. CLC 2000 Adaptor (for PICC)</td>
<td>Clave 7 days</td>
</tr>
<tr>
<td>3. Triple Lumen Central Venous (CV) catheter</td>
<td>Arrow 7 – 10 days</td>
</tr>
<tr>
<td>4. IV cannula / Extension tubing / Clearlink (Needleless)</td>
<td>72 hours / PRN</td>
</tr>
<tr>
<td>5. IV drip sets / IV burette / IV fluids (without additives)</td>
<td>Baxter 72 hours / PRN</td>
</tr>
<tr>
<td>6. IV Blood transfusion filter set</td>
<td>Baxter Completion of each transfusion</td>
</tr>
</tbody>
</table>
### Invasive Devices

<table>
<thead>
<tr>
<th>Invasive Devices</th>
<th>Brand Name</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. PICC Dressing</td>
<td></td>
<td>24 hrs after incision, thereafter every 48 hrs / PRN</td>
</tr>
<tr>
<td>8. CVP Manometer Set</td>
<td>Braun</td>
<td>72 hours</td>
</tr>
<tr>
<td>9. CVP Dressing</td>
<td></td>
<td>24 hrs after incision, thereafter every 72hrs / PRN</td>
</tr>
<tr>
<td>10. Subcutaneous (s/c) cannula</td>
<td></td>
<td>72 hours / PRN</td>
</tr>
<tr>
<td>11. Intra-arterial (IA) catheter</td>
<td></td>
<td>7 days</td>
</tr>
<tr>
<td>12. IA Transducer Set (complete with tubings, adaptor &amp; fluid)</td>
<td></td>
<td>4 days (96 hours)</td>
</tr>
<tr>
<td>13. Any Type of Femoral Lines or Sheath</td>
<td></td>
<td>5 – 7 days</td>
</tr>
<tr>
<td>14. Swan Ganz Sheath (subclavian, internal jugular etc)</td>
<td></td>
<td>7 – 10 days</td>
</tr>
</tbody>
</table>

### Respiratory System

<table>
<thead>
<tr>
<th>Respiratory System</th>
<th>Brand Name</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tracheostomy tube, single lumen</td>
<td>Portex</td>
<td>7 days</td>
</tr>
<tr>
<td>2. Tracheostomy Tube, dual lumen</td>
<td>Shiley</td>
<td>29 days</td>
</tr>
<tr>
<td>3. Adjustable flange tracheostomy tube</td>
<td>Portex</td>
<td>7 days</td>
</tr>
<tr>
<td>4. Endotracheal tube</td>
<td>Portex</td>
<td>7 days</td>
</tr>
<tr>
<td>5. Percutaneous tracheostomy</td>
<td>Ultra Perc</td>
<td>30 days</td>
</tr>
<tr>
<td></td>
<td>Tracheo</td>
<td>43 days</td>
</tr>
<tr>
<td>6. Closed system suction catheter</td>
<td>Trachcare</td>
<td>24 hours/72 hours</td>
</tr>
<tr>
<td>7. Suction tubing</td>
<td></td>
<td>24 hours</td>
</tr>
<tr>
<td>8. Complete set of corrugated tubing system and connector</td>
<td></td>
<td>48 hours</td>
</tr>
<tr>
<td>9. Trachy filter / HME</td>
<td></td>
<td>48 hours/PRN</td>
</tr>
<tr>
<td>10. Suction catheter</td>
<td></td>
<td>maximum 3 passes</td>
</tr>
<tr>
<td>11. Ventolin nebuliser chamber (set)</td>
<td></td>
<td>after 10 uses</td>
</tr>
<tr>
<td>12. Oxygen delivery devices (without humidification)</td>
<td></td>
<td>72 hours</td>
</tr>
<tr>
<td>13. Respigard-II nebulizer</td>
<td></td>
<td>24 hours</td>
</tr>
<tr>
<td>14. Oro-pharyngeal airway</td>
<td></td>
<td>PRN</td>
</tr>
<tr>
<td>15. Chest tube drainage bottle</td>
<td>Redax</td>
<td>2400 mls / 7 day</td>
</tr>
</tbody>
</table>
## Quick References Guide to change of Products, Tubes and dressing
Refer to manufacturer’s recommendation, if indicated

<table>
<thead>
<tr>
<th>Infusion set / Adaptor / Manometer</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CLC 2000 Adaptor (for PICC line)</td>
<td>Clave 7 days</td>
</tr>
<tr>
<td>2. IV Cannula / Extension tubing / Needleless</td>
<td>72 hours / PRN</td>
</tr>
<tr>
<td>3. IV drip sets / IV burette</td>
<td>Baxter 72 hours / PRN</td>
</tr>
<tr>
<td>4. IV fluids (without additives)</td>
<td>Baxter 72 hours</td>
</tr>
<tr>
<td>5. IV Blood transfusion filter set</td>
<td>Baxter Complete of each</td>
</tr>
<tr>
<td>6. CVP manometer Set</td>
<td>Braun 72 hours</td>
</tr>
<tr>
<td>7. Subcutaneous (s/c) cannula</td>
<td>72 hours / PRN</td>
</tr>
<tr>
<td>8. Pressure infusion set (complete with tubings, adaptor &amp; fluid)</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

## Frequency of Dressing

<table>
<thead>
<tr>
<th>No.</th>
<th>Device</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tracheostomy</td>
<td><strong>Do not</strong> change dressing for 1st 24 hrs, thereafter change daily / PRN</td>
</tr>
<tr>
<td>2.</td>
<td>PICC</td>
<td>At least 7 days for transparent dressing, 24-48 hours</td>
</tr>
<tr>
<td>3.</td>
<td>CVC</td>
<td>At least 7 days for transparent dressing, 24-48 hours for gauze dressing / PRN</td>
</tr>
<tr>
<td>4.</td>
<td>Chest drainage</td>
<td>72 / PRN</td>
</tr>
</tbody>
</table>
CARDIOVASCULAR MEDICINE

Pre-reading topics
Basic anatomy and physiology of cardiovascular system

Common Diagnoses
- Acute myocardial infarct (AMI)
- Angina Pectoris
- Atherosclerosis
- Atrial fibrillation (AF)
- Atrial flutter
- Congenital heart defects
- Congestive heart failure (CHF)
- Coronary heart disease (CHD)
- Endocarditis
- Heart block
- Hypertension
- Mitral valve prolapsed
- Mitral valve regurgitation
- Non ST Elevation Myocardial Infarct (NSTEMI)
- Pericarditis
- Premature Atrial Tachycardia (PAT)
- Pulseless Electrical Activity (PEA)
- Refractory hypertension
- ST Elevation Myocardial Infarct (STEMI)
- Supraventricular Tachycardia (SVT)
- Unstable angina pectoris
- Ventricular fibrillation (VF)
- Ventricular Tachycardia (VT)

Common Investigations
Non-invasive cardiac investigation
- 12 Leads Electrocardiography (ECG)
- 24hrs Holter ECG Monitoring
- Chest X-ray (CXR)
- Dobutamine Stress Echocardiogram (DSE)
- Telemetry
- Transthoracic Echocardiogram (2D echo)
- Treadmill Exercise Test

Invasive cardiac investigation
- Myocardial perfusion (Methoxyisobutyl Isonitrile) Scan (MIBI scan)
- Trans-oesophageal Echocardiography (TEE)

Cardiac Procedures
- Cardioversion/ defibrillation
- Coronary Artery Bypass Graft (CABG)
- Electrophysiological study of the heart(EPS)
- Implantable Cardiovertor Defibrillator (ICD)
- Percutaneous Coronary Intervention (PCI): Coronary Angioplasty (PTCA)
- Artherectomy/ bare-stent
- Permanent pacemaker implantation
- Radio-frequency ablation (RF)
- Valve repair/ replacement
COMMUNICABLE DISEASES

Pre-reading topics
Basic anatomy and physiology of immune, haematology, reproductive and sensory systems

Common Diagnoses
- Acute Epididymo-Orchitis
- AIDS
- Candidiasis
- Chancroid
- Chlamydia Trachomatis
- Clostridium Difficile (CD toxin)
- Cryptococcus meningitis
- Cryptosporidiosis
- Cytomegalovirus (CMV)
- Dementia related to HIV
- Genital Candiasis
- Gonorrhoea
- Hepatitis B virus
- Herpes Simplex
- Herpes simplex Virus
- Human Immunodeficiency Virus (HIV)
- Human Papilloma Virus
- Human Papillomavirus Infection (HPV)
- Kaposi Sarcoma
- Life cycle of HIV
- Lymphoma
- Molluscum
- Molluscum Contagiosum
- Mycobacterium avium complex
- Opportunistic Infections related to HIV (OIs)
- Pediculosis Pubis
- Pelvic Inflammatory Disease
- Pneumocystis carinii
- Progressive Multifocal Leucoencephalopathy (PML)
- Sexually Transmitted Infections
- Shingles
- Syphilis
- Toxoplasmosis
- Trichomoniasis
- Tuberculosis
- Warts
COMMUNICABLE DISEASES

Common diagnoses (Continued)
- Chickenpox
- Cholera
- Dengue
- Dengue Haemorrhagic Fever
- Hand, Foot Mouth Disease
- Legionellosis
- Malaria
- Nipah virus infection
- Other Infectious Diseases
- SARS
- Typhoid

Common Procedures
- Blood Transfusions
- Bone Marrow Aspiration
- Lumbar Puncture
- Pentamidine Nebulizer
- Pre & Post Management for Intra-Vitreous Ganciclovir
- Skin Biopsy
- Skin Treatments
- Sputum Induction
- Visual Acuity
Pre-reading topics
Basic anatomy and physiology of digestive, urinary, endocrine, renal, haematology and respiratory

Common diagnosis

- Anaemia
- Ascites
- Asthma
- Bronchiectasis
- Bronchitis
- Carcinoma Lung
- Cholecystitis
- Chronic Obstructive Pulmonary Disease (COPD)
- Constipation Colic
- Dehydration
- Dengue Fever
- Diabetic Ketoacidosis (DKA)
- DM Type I and II
- Emphysema
- Empyema
- Gastroenteritis (GE)
- Haemoptysis
- Hepatic Biliary System (HBS) Sepsis
- Hepatic Cellular Carcinoma (HCC)
- Hyperglycaemic Hyperosmolar Nonketotic Coma (HHNK)
- Hypertension
- Hypo/ Hyperkalemia
- Hypo/ Hypernatremia
- Hypo/ Hyperthyroidism
- Hypoglycaemia
- Jaundice
- Lymphoma
- Pancreatitis
- Peritonitis
- Pleural Effusion
- Pulmonary Edema
- Pulmonary Embolism
- Renal Calculi
- Renal Failure (Acute/ Chronic)
- Sepsis
- Septicaemia
- Thrombocytopenia
- Urinary tract infection (UTI)
- Vertigo
GENERAL MEDICINE

Common procedures
• Abdominal Tap
• Biopsy
• Bladder Washout
• Bone Marrow Aspiration
• Chest tube insertion/ removal
• Colonoscopy
• Endoscopic Retrograde Cholangiopancreatography (ERCP)
• Flexible cystoscopy
• Lumbar puncture
• Oesophagogastroduodenoscopy (OGD)
• Tracheostomy

Common Investigations
• Barium swallow/ enema
• Laboratory Investigations:
  * FBC, U/E/Cr, Liver Function Tests, Fasting Glucose & Lipids, Hepatitis Panel
• Radiological Diagnostic:
  * Computed Tomography (CT) scan
  * Magnetic Resonance Imaging (MRI)
  * Percutaneous Transhepatic Cholangiography and Biliary Drainage (PTC Drainage)
  * Ultrasound (U/S)
• Sputum culture and gram stains
• Sputum for acid fast bacteria and TB culture
• Stool occult blood (OB), ova, cysts and parasites
**Pre-reading topics**
Basic anatomy and physiology of digestive, urinary, endocrine, vascular, hepatic, breast and thoracic systems

**Common Diagnosis**
- Appendicitis
- Ascites
- Benign Prostatic hyperplasia (BPH)
- Breast Tumour
- Cholangitis
- Cholecystitis
- Cirrhosis
- Crohn’s disease
- Diverticulitis
- Gastrointestinal bleed
- Haematuria
- Haemorrhoids
- Hepatitis (Acute/ Chronic)
- Hepatocellular Cancer (HCC)
- Intestinal obstruction
- Pancreatitis
- Peptic ulcer
- Peripheral Vascular Disease (PVD)
- Pneumothorax/ Haemothorax
- Pyelonephritis
- Urinary tract infection (UTI)

**Common Procedures**
- Barium swallow/ enema
- Bladder washout
- Chest tube insertion/ removal
- Colonscopy
- Colostomy
- Drain removal
- Endoscopic Retrograde Cholangiopancreatography (ERCP)
- Flexible cystoscopy
- Laproscopy/ laprotomy
- Oesophagogastroduodenoscopy (OGD)
- Sigmoidoscopy

**Common Investigations**
- Angiogram/ Angioplasty
- Ankle Brachial Index (ABI)
- Laboratory Investigations:
  - FBC, U/E/Cr, PT/PTT, GXM
  - Stool occult blood (OB)
  - Urine FEME/ culture
- Radiological Diagnostic:
  - Computed Tomography (CT) scan
  - Magnetic Resonance Imaging (MRI)
  - Ultrasound (U/S)
GERONTOLOGY MEDICINE (GRM)

Pre-reading topics
Basic anatomy and physiology of digestive, urinary, endocrine, renal, haematology, respiratory and cardiovascular Systems

Common Diagnosis
- Acute retention of urine (ARU)
- Alzheimer’s disease
- Anaemia (iron deficiency)
- Carcinoma lung
- Chronic constipation
- Dehydration
- Delirium
- Dysphagia
- Frequent fall
- Functional decline
- Hypertension
- Hypo/Hyperkalaemia
- Hypo/Hypernatremia
- Impaired vision/ hearing
- Loss of Appetite (LOA)
- Loss of weight (LOW)
- Malnutrition
- Pleural Effusion
- Pneumonia
- Postural hypotension
- Pressure ulcer
- Sepsis
- Septicaemia
- Urinary Incontinence
- Urinary Tract Infection (UTI)
- Vertigo and Syncope

Common Procedures
- Colonoscopy
- Endoscopic Retrograde Cholangiopancreatography (ERCP)
- Oesophagastroduodenoscopy (OGD)
- Sigmoidoscopy
GERONTOLOGY MEDICINE

Common Procedures
- Abbreviated Mental Test
- Barium swallow/ enema
- Bone Marrow Aspiration
- Diet modification/ feeding consistencies
  e.g. nectar, honey and pudding
- Lumbar puncture
- Per Rectum (PR) examination
- Post Void Residual Urine (PVRU)
- Swallowing assessment
- Video Fluoroscopic Swallowing (VFS)

Common Investigations
- Electrocardiogram (ECG)
- Fibre-optic Endoscopic Evaluation of Swallowing (FEES)
- Laboratory Investigation
  * FBC, U/E/Cr, Liver Function Tests, Fasting Glucose & Lipids, Hepatitis Panel
  * Stool occult blood (OB), ova, cysts and parasites
  * Urine FEME/ culture
- Radiological Diagnostic
  * Computed Tomography (CT) scan
  * Magnetic Resonance Imaging (MRI)
  * Ultrasound (U/S)
Pre-reading topics
Basic anatomy and physiology of human brain

Common Diagnosis
• Benign Paroxysmal Positional Vertigo (BPPV)
• Cerebral Tumours
• Epilepsy, Seizure
• Hydrocephalus
• Meningitis
• Migraine
• Multiple Sclerosis (MS)
• Myasthenia Gravis (MG)
• Parkinson disease
• Spinal cord disorders (Cervical Myelopathy, cervical Spondylosis, slipped disc etc)
• Stroke (Ischemic/ Hemorrhagic)
• Vertebro-basilar insufficiency (VBI)

Common Procedures
• Craniectomy
• Craniotomy
• External ventricular Drainage (EVD) (Insertion/ Revision)
• Laminectomy
• Sympathectomy
• Tumour removal
• Ventriculoperitoneal (VP) Shunt (Insertion/ Revision/ Removal)
• Neurological assessment using Conscious level chart (CLC)
• Dysphasia and preparation of feeding consistencies (e.g. Thin, nectar, honey and pudding)

Common Investigations
• 2 Dimensional Echocardiogram (2D-Echo)
• 4-Vessels Angiogram (4-VA)
• Electroencephalogram (EEG)
• Electromyogram/ Nerve conduction studies (EMG/ NCS)
• Lumbar puncture (LP)
• Radiological Diagnostic
  * Computed Tomography (CT) Brain
  * Magnetic Resonance Imaging (MRI)
  * Ultrasound (U/S) Carotids
• Transcranial Doppler (TCD)
• Trans-oesophageal Echocardiogram (TEE)
**ORTHOPAEDIC (Ortho)**

**Pre-reading topics**
Basic anatomy and physiology of musculoskeletal system

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<thead>
<tr>
<th>Common Diagnosis</th>
<th>Common Investigations</th>
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<td>• Cervical spondylosis</td>
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<td>• Compartmental Syndrome</td>
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<td>• Diabetic foot (DM)</td>
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<td>• Fracture Pelvis</td>
<td>• * Stool occult blood (OB)</td>
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<td>• Fracture Radius/ Ulnar</td>
<td>• * Urine FEME/ culture</td>
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<tr>
<td>• Fracture Tibia/ Fibula</td>
<td>• * Bleeding Time</td>
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<tr>
<td>• Fracture Intertrochanteric (IT)</td>
<td>* Computed Tomography (CT) scan</td>
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<td>• Osteoarthritis Knee (OA)</td>
<td>• Magnetic Resonance Imaging (MRI)</td>
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<td>• Osteoporosis</td>
<td>• Ultrasound (U/S)</td>
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<td>• Prolapsed Intervertebral discs (PID)</td>
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<td>• Spinal Injury</td>
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</table>

**Common Procedures**
- Below/ Above Knee Amputation (BKA/ AKA)
- Dynamic Hip screw (DHS)
- External Fixation
- Intra-medullar Nailing (IM)
- Moores Hemiarthroplasty
- Open Reduction Internal Fixation (ORIF)
- Skin Traction (e.g. Straight leg traction, Russell’s Traction, Thomas’ splint traction)
- Spinal Decompression/ Laminectomy
- Total Hip Replacement (THR)
- Total Knee Replacement (TKR/A)
# RESPIRATORY MEDICINE (RES)

## Pre-reading topics
Basic anatomy and physiology of Respiratory system

### Common Diagnosis
- Acute or Chronic Bronchitis
- Asthma
- Atelectasis
- Bronchiectasis
- Bronchitis
- Chronic Obstructive Pulmonary Disease (COPD)
- Chronic Sinusitis
- Community-acquired pneumonia
- Cytomegalovirus - lung complications
- Emphysema
- Empyema
- Haemothorax
- Hay fever
- Lung cancer/ abscess
- Otitis media and sinusitis
- Pharyngitis
- Pleural effusion
- Pleurisy
- Pneumonia
- Pneumothorax/ Spontaneous Pneumothorax
- Pulmonary Oedema
- Pulmonary Thromboemboli
- Severe Acute Respiratory syndrome
- Sinusitis
- Toxoplasmosis
- Tuberculosis (TB)

### Common Procedures
- Airway Intubation
- Airway management
- Biopsy
- Bronchoscopy
- Chest tube insertion/ removal
- Incentive spirometry
- Oxygen Therapy
- Sputum Induction
- Tracheostomy

### Common Investigations
- Laboratory Investigation
  - Arterial Blood gas
  - Sputum C/S, AFB smear
- Peak Expiratory Flow Rate (PEFR)
- Pulmonary Function Test
  - E.g. Spirometry, Perfusion/ Ventilation Scan, Exercise Testing
- Radiological Diagnostic
  - Chest X-ray (CXR)
  - Computed Tomography (CT)
  - Thorax scan
1. Infection control practices

- Standard Precaution
- Isolation Precaution
  * Droplets Precaution
  * Airborne Precaution
  * Contact Precaution
  * Full Precaution
  * Protective Precaution
- Sharps and Needle-stick injuries/ Occupational Blood and Body Fluid Exposure

First-aid

1. Immediately after the injury wash the puncture site or mucous membrane with antiseptic soap and water. Dress Wound.
2. If blood or body fluid splashes into eye, it should be irrigated with water
3. Report to immediate supervisor

- Five Moments of hand hygiene
  1. Before patient contact
  2. Before aseptic task
  3. After contact with patient’s surrounding
  4. After blood or body fluid exposure
  5. After patient contact

- Please refer to ward poster for 7 steps of hand washing

2. Medication Errors

- Students are allowed to participate in medication round only if:
  * Able to apply 5 Rights
  * Able to prepare medication **UNDER** supervision from RN.
  * Able to discuss the relevant information on the list of medications to be serve
  * Remember to countercheck with RN **BEFORE** serving the medications
3. Falls management: Fall Indicators

a) Patient’s headboard

b) Pink wrist tag

c) Use of Fall assessment tool (WHeFRA)

d) Fall prevention measure e.g. checklist
4. Phlebitis Prevention

a. 4 important points to note regarding peripheral IV devices are
   i) D: Date of insertion – should be indicated on dressing
   ii) D: Dressing – change if damp, loosen or soiled
   iii) P: Patency of the IV cannula
   iv) P: Phlebitis (Signs and Symptoms)
      * P: Pain
      * O: Oedema
      * E: Erythema
      * T: Temperature

b. If there are signs of phlebitis:
   - inform the nurse in charge & doctor
   - remove IV cannula under clinical supervision
   - apply glycerine magnesium sulphate (GMS) dressing
   - assess affected site every shift

   c. For more information
   Please refer to quick reference guide to prevention and management of phlebitis

Grading of Phlebitis

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<thead>
<tr>
<th>Grading</th>
<th>Descriptions</th>
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<tbody>
<tr>
<td>0</td>
<td>No clinical symptoms</td>
</tr>
<tr>
<td>1+</td>
<td>Erythema, with/ without pain Odema may/ may not be present No streak formation and No palpable cord</td>
</tr>
<tr>
<td>2+</td>
<td>Erythema, with/ without pain Odema may/ may not be present Streak formation and No palpable cord</td>
</tr>
<tr>
<td>3+</td>
<td>Erythema, with/ without pain Odema may/ may not be present Streak formation and palpable cord</td>
</tr>
</tbody>
</table>
5. **Pressure Ulcer Prevention**
   - Check the skin integrity over the pressure points every shift
   - 2 hourly turning
   - Braden Scale
   - Wound management (To find out type of dressing products and type of cleansing solutions used)
   - Apply the appropriate mattress for the patients
   - Apply Barrier/Moisture Cream PRN

6. **Aspiration Precaution (Dysphagia)**
   - Prop patient upright at 90 degree
   - **DO NOT** use straw especially for elderly/stroke patient
   - Use of feeding consistencies (e.g. Nectar<Honey<Pudding)
   - **DO NOT** feed if:
     * Coughing
     * Choking with swallowing
     * Frequent, repetitive swallowing
     * Food stuck in the throat
     * Swallowed food back up into nose
     * **PATIENT IS DROWSY**
**HOSPITAL DOCUMENTATION SYSTEM**

**Introduction to Clinical documentation**

1. Clinical Chart, Intake/ Output Chart (Blue Folder)
2. Medical Case File (Grey file)
   - Patient and family communication record
   - Operation Notes
   - Radiology Investigation
   - Doctor’s notes
   - Laboratory Reports
     - Haematology/ GXM
     - Biochemistry/ Toxicology
     - Microbiology/ Pathology/ Histology
     - Arterial Blood Gas (ABG)
     - Immunology and others
   - Nursing Notes
     - Patient Care Record (PCR)
     - Nursing Assessment Record (NAR)
     - Nursing Kardex
   - Discharge Planning/ Patient Education
     - Patient and Family Education Record (PFE)
     - Discharge Screening
3. Inpatient Medication Record - Green Folder/ Red Folder (for patient with history of drug allergy)
   - Omission Chart
   - Treatment Sheet
4. X-ray Folder
   - Current Xrays
   - Old notes

**Important Pointers on Nursing Documentation!**

- Be honest
- Document timely
- Accurate and legible
- Make sense – write to the point
- Meaningful and relevant
- Must communicate if abnormality detected
- Complete documentation
USEFUL RESOURCES

1. TTSH Internet/ Intranet
   • NHG Blackboard e-Learning System
     (Requires User ID and Password- to get from ward)
   • TTSH Intranet → Continuous Learning and Improvement
     → Resources → Patient Teaching
   • e-Bulletins/ Notice Board → Nursing Notice Board
   • e-Bulletins/ Notice Board → Pharmacy Notice Board
   • TTSH e-Library Services
   • TTSH e-Laboratory Services

2. TTSH Lotus notes (Requires Password – to get from ward)
   • Route 21
     * Work Instructions
     * Support Document
     * Quality Procedures

3. TTSH Ward Telephone Numbers/ Nurse Educators/ Clinical Instructors

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<thead>
<tr>
<th>TTSH Main Building</th>
<th>Telephone/ Ext:</th>
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<tbody>
<tr>
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<tr>
<td>Ward 3B&lt;br&gt;(SICU – Surgical Intensive Care Unit)</td>
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<td>Ward 5A</td>
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<tr>
<td>6A</td>
<td>Ward 6A (CCU – Critical Care Unit)</td>
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<td>6B</td>
<td>Ward 6B (MICU – Medical Intensive Care Unit)</td>
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<td>6C</td>
<td>Ward 6C (SHD – Surgical High Dependency)</td>
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• B2 Ward Reception 64506203/ 226
• C Ward 64506229

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<td>• Pua Lay Hoon 63578580/97208760</td>
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<td>• Joanna Lee 63578508/97208764</td>
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<td>• Joyce Lian Xia 63571945/97208765</td>
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<th>Hospital-Based Clinical Instructors</th>
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<td>• Ashirdahwani Asmawi 63571945/97208732</td>
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Nursing Service
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