Teaching with the Laerdal / NLN Simulation in Nursing Education Cases

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Introduction

Laerdal, in collaboration with the National League of Nursing (NLN) developed twenty (20) scenarios for undergraduate nursing students.

These scenarios are designed to be used with Laerdal SimMan and SimMan 3G.
History of Development

• Original scenarios developed by the NLN
• Reviewed and adapted for the UK market by Brookes University
• In 2010 Laerdal collaborated with the Council of Deans of Nursing and Midwifery (ANZ)
• CDNM (ANZ) SLE Advisory Group established to adapt the NLN scenarios for the Australian and New Zealand context
History of Development

Prof. Patrick Crookes, University of Wollongong
Assoc. Prof. Patrea Andersen, University of Wollongong
Mr. Roy Brown, University of Wollongong
Prof. Tracy Levett-Jones, University of Newcastle
Mr. Stephen Guinea, Australian Catholic University
Ms. Michelle Kelly, University of Technology, Sydney
Assoc. Prof. Christopher Churchouse, Edith Cowen University
Prof. Margaret McAllister, University of the Sunshine Coast
Assoc. Prof. Kerry Reid-Searl, CQU University
Drivers for Development

• Acknowledgement that there is value in simulation based learning in undergraduate nursing programs
• Market research on simulation management and data capture systems has exposed critically important needs as:
  – Competency based learning
  – Curriculum creation: critically important 77% (Laerdal, 2010)

HOWEVER:
• Time consuming for the development of scenarios
• Limited skill base to develop validated scenarios

THEREFORE:
• Pre-developed scenarios assist with achieving the outcomes of simulation based learning without extensive investment in development
• Product must be accessible and affordable.
Scenarios Adapted

**Surgical Scenarios 1 - Marilyn Hughes**
Lower Leg Fracture – Basic Assessment
Lower Leg Fracture – Compartment Syndrome

**Surgical Scenarios 2 - Stan Checketts**
Preoperative Bowel Obstruction – Spiritual Needs
Preoperative Bowel Obstruction – Fluid and Electrolyte Imbalance

**Surgical Scenarios 3 - Doris Bowman**
Immediate Postoperative Abdominal Hysterectomy – Managing Nausea
Immediate Postoperative Abdominal Hysterectomy – Adverse Reaction

**Surgical Scenarios 4 - Vernon Watkins**
Postoperative Hemicolectomy – Preventing Respiratory Complications
Postoperative Hemicolectomy – Pulmonary Embolism

**Surgical Scenarios 5 - Lloyd Bennett**
Postoperative Hip Arthroplasty – Blood Transfusion
Postoperative Hip Arthroplasty – Blood Transfusion Reaction

**Medical Scenarios 1 - Kenneth Bronson**
Acute Strep Throat – Mild Reaction to Antibiotic
Pneumonia – Severe Reaction to Antibiotic

**Medical Scenarios 2 - Jennifer Hoffman**
Mild Asthma
Severe Asthma

**Medical Scenarios 3 - Vincent Brody**
Chronic Obstructive Pulmonary Disease – Oxygen Therapy
Chronic Obstructive Pulmonary Disease – Spontaneous Pneumothorax

**Medical Scenarios 4 - Carl Shapiro**
Acute Coronary Syndrome
Acute Myocardial Infarction

**Medical Scenarios 5 - Skylar Hansen**
Diabetic – Insulin Administration
Diabetic – Hypoglycaemia
Scenario Resources: Instructor

- **Background information to the scenario**
- Instructor resources:
  - Learning objectives
  - Nursing Assessment and Nursing Diagnoses
  - Requirements to prepare simulation
    - Simulator, participants, equipment
  - Additional information for faculty
  - Outline of assessment and management
  - Debriefing / guided reflection guide
Scenario Resources: Instructor

Basic set up documents available in each scenario include:

- Equipment checklist
- Preparation of SimMan
- Proposed correct treatment (outlined)
- Documentation forms
- Scenario Flow diagram
- Patient notes
- Observation charts
- Medication charts
- Medical orders
- Pt ID band
Scenario Resources: Student

**Student resources:**
- Briefing / handover
- Care plan
- Documentation (guide)
- Signs and symptoms & medical orders
Activity
Other Considerations

• Purpose of the simulation
  • Teaching / learning / assessment
Other Considerations

• Documentation
  – Confidentiality
    • Participant consent not to discuss outside simulation
    • SPs and SiPs consent not to disclose scenario


  – Photography
    • Consent to be filmed for debriefing
    • Consent to be filmed for research
    • Consent to be filmed for media and publicity
Flexibility of Use

• Teaching / learning / assessment
• Transferrable to different contexts
  – same presentation, different Learning Objectives
• Applied to different disciplines or extended to IPL
• Fidelity can be increased or decreased
• Can be adapted to different modes of simulation
  – including SPs and SiPs, role-play
• Can be stand-alone or integrated into curriculum
Flexibility of Use:
Using Standardised Patients (SP) and Simulated Patients (SiP)

• Orientation of the SP and SiP to the scenario
  • Ensure they know the learning outcomes
  • Ensure their physical and psychological safety
  • Ensure they know the rules of the simulation

• Establishing role definition
Debriefing

- The debrief should be the time for **questions and answers**, the time for **guidance**, the time for the instructor to make sure that the simulation and debriefing **met the learning objectives** of the simulation, and that the entire experience provided for **a positive learning experience**.
  - **Establish Psychological Safety**
  - **Establish Debriefing Ground Rules**
  - **Encourage Learners to Take Initiative in the Dialogue**
  - **Be Clear and Honest About Assessment and or Evaluation**
Activity

How might you use this scenario?
Flexibility of Use: Marilyn Hughes

- Paramedic handover to ED
  - Splint in situ, patient complaining of leg pain
- Recovery handover to ward nurse
  - Recovery nurse states all assessments OK, nurse finds DP pulse absent
- Interdisciplinary: Communication, ISBAR
  - Pain management, prescribing, phone orders,
- Fall in nursing home, dislocated hip
- Vascular medical / surgical patient
- Occluded femoral artery post angiography
  - Doppler
Summary

• Ease of use
• Cost/ benefit
• Validated
• Applicable across multiple campuses and multiple disciplines