



TTPSS

TAG TEAM PATIENT
SAFETY SIMULATION



Medication Safety

Professor Kerry Reid-Searl, CQUniversity

Ms Tracy Flenady, CQUniversity

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Project Team Members:

Professor Kerry Reid-Searl, CQUniversity

Professor Tracy Levett-Jones, University of Technology Sydney

Associate Professor Patrea Andersen, University of Sunshine Coast

Dr Stephen Guinea, Australian Catholic University

Professor Trudy Dwyer, CQUniversity

Ms Leanne Heaton, CQUniversity

Project Manager

Ms Tracy Flenady, CQUniversity

Research Assistant

Dr Judith Applegarth, CQUniversity



Preface

It is recommended that educators refer to the TTPSS *Facilitator Guide* prior to the implementation of this simulation for more detailed and specific information.

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Simulation Overview

This simulation comprises two scenarios that focus on safe administration of medication. Scenario 1 is the foundation and introduces the importance of adhering to safe medication administration practices, emphasising the significance of the National Safety and Quality Health Service (NSQHSS) *Standard 4 Medication safety*. Scenario 2 extends the level of complexity by escalating the patient's presenting symptoms with the intent of highlighting the importance of *Standard 8 Recognising and responding to acute deterioration*.

Whilst these scenarios have been designed to focus on the abovementioned standards, educators are also encouraged to capitalise on the many opportunities to address *Standard 3 Preventing and controlling healthcare-associated infection*, and *Standard 6, Communicating for Safety*.

Each scenario incorporates 5 phases: Setup and Briefing, Act 1, Intermission, Act 2, Debrief. The level of complexity of the simulation can be increased for either scenario to meet the specific needs of learners through the use of Antagonist Cards.

Scenario 1

Learning outcomes

At the completion of Scenario 1 learners will be able to:

- Administer and monitor the therapeutic use of medications and respond appropriately to medication errors and adverse drug reactions
- Collaborate and communicate effectively with members of the healthcare team
- Reduce the risk of patients acquiring healthcare-associated infections

Key points from NSQHS Standards relevant to Scenario 1



Medication safety

Highlighting the importance of:

- Adhering to the six rights of medication administration
- Monitoring the effect of the medication and documenting accordingly
- Practicing within scope of practice and seeking direct supervision for medication administration

Whilst this scenario focuses on the above standards, educators are also encouraged to capitalise on the many opportunities to address the following standard:



Healthcare-associated infection

Highlighting the importance of:

- Preventing and controlling healthcare-associated infections
- Identifying and managing patients presenting with or at risk of infection



Communicating for safety

Highlighting the importance of:

- Documenting critical information and clinical concerns including plan of care
- Communicating changes in client health status
- Partnering with consumers to enable them to be actively involved in their own care

Preparatory reading materials for students

Before the simulation, send learners a *Participant Information Handout* that includes the following:

- General information about the simulation, including dates, times and venue
- A brief overview of the TTPSS method including the simulation rules
- The prologue to the scenario along with the roles of cast members
- The NSQHSS Standards relevant to the scenario
- Preparatory reading materials and a summary of key points.

The TTPSS toolkit includes a modifiable template where the details of dates, times and venue can be inserted (see Appendix 4).



Preparatory reading materials

Recommended readings for educators

Australian Commission on Safety and Quality in Health Care (2012). *Safety and quality improvement guide Standard 4: Medication safety (October 2012)*.

https://www.safetyandquality.gov.au/wp-content/uploads/2012/10/Standard4_Oct_2012_WEB.pdf

Australian Commission on Safety and Quality in Health Care. <https://www.safetyandquality.gov.au/>

Australian Government Therapeutic Goods Administration. <http://www.tga.gov.au/medicines>

Australian Commission on Safety and Quality in Health Care and NSW Therapeutic Advisory Group Inc. (2014). *National quality use of medicines indicators for Australian hospitals*.

https://www.safetyandquality.gov.au/wp-content/uploads/2014/11/SAQ186_National_QUM_Indicators_UserGuide-clientPRINT-D14-39597.pdf

Australian Commission on Safety and Quality in Health Care (2016). *Vital signs 2016: The state of safety and quality in Australian health care*. www.safetyandquality.gov.au

- Breivik, H., Borchgrevink, P. C., Allen, S. M., Rosseland, L. A., Romundstad, L., Breivik Hals, E. K., . . . Stubhaug, A. (2008). Assessment of pain. *BJA: British Journal of Anaesthesia*, *101*, 17–24. [doi:10.1093/bja/aen103](https://doi.org/10.1093/bja/aen103)
- Raban, M. Z., Lehnbohm, E. C., & Westbrook, J. I. (2013). *Interventions to reduce interruptions during medication preparation and administration*. Centre for Health Systems and Safety Research, Australian Institute of Health Innovation, on behalf of the Australian Commission on Safety and Quality in Health Care. <https://www.safetyandquality.gov.au/wp-content/uploads/2013/12/Evidence-briefings-on-interventions-to-improve-medication-safety-Reducing-interruptions-during-medication-preparation-and-administration-PDF-1.2MB.pdf>
- Ramasamy, S., Baysari, M. T., Lehnbohm, E. C., & Westbrook, J. I. (2013). *Double-checking medication administration*. Centre for Health Systems and Safety Research, Australian Institute of Health Innovation, on behalf of the Australian Commission on Safety and Quality in Health Care. <https://www.safetyandquality.gov.au/wp-content/uploads/2013/12/Evidence-briefings-on-interventions-to-improve-medication-safety-Double-checking-medication-administration-PDF-888KB.pdf>
- Reid-Searl, K., & Happell, B. (2012). Supervising nursing students administering medication: A perspective from registered nurses, *Journal of Clinical Nursing*, *21*, 1998–2005. [DOI: 10.1111/j.1365-2702.2011.03976.x](https://doi.org/10.1111/j.1365-2702.2011.03976.x)
- Reid-Searl, K., & Happell, B. (2011). Factors influencing the supervision of nursing students administering medication: The registered nurse perspective. *Collegian*, *18*, 139–146.
- Reid-Searl, K., Moxham, L., & Happell, B. (2010). Enhancing patient safety: The importance of direct supervision for avoiding medication errors and near misses by undergraduate nursing students, *International Journal of Nursing Practice*, *16*, 225–232.
- Reid-Searl, K., Moxham, L., Walker, S., & Happell, B. (2010). Whatever it takes: Nursing students' experiences of administering medication in the clinical setting. *Qualitative Health Research*, *20*, 952–965.
- Roughhead, L., Semple, S., & Rosenfeld, E. (2013). *Literature review: Medication safety in Australia*. Australian Commission on Safety and Quality in Health Care. <https://www.safetyandquality.gov.au/wp-content/uploads/2013/08/Literature-Review-Medication-Safety-in-Australia-2013.pdf>
- Sansom, L. (1999). The Australian National Medicinal Drug Policy, *Journal of Quality in Clinical Practice*, *19*, 31–35.

Scenario 1 prologue

This scenario involves a nursing student caring for a post-operative orthopaedic patient who is experiencing pain. The nursing student will be working with a Registered Nurse preceptor. The scenario provides the opportunity for learners to engage with the following:

- Clinical handover (given by the Director, guided by ISBAR)
- Pain assessment
- Neurovascular assessment
- Safe administration of medication
- Evaluating effectiveness of analgesic medications
- Recognition of adverse drug reactions
- Response to medication errors

The setting is a surgical ward. Information about the patient will be provided at the clinical handover given by the Director at the beginning of the scenario.

Environment

The simulation environment can be in any location deemed suitable, but the space must be appropriate for the number of learners.

Roles

- The Director (played by the educator or facilitator)
- A nursing student
- Two Registered Nurses (possible Antagonists), one being the student's preceptor, the other to be 'on hand' as required
- One patient (Protagonist)
- One family member
- Audience members

In this simulation, learners will tag in and out of the nursing student and RN roles, resulting in many cast members playing one role.

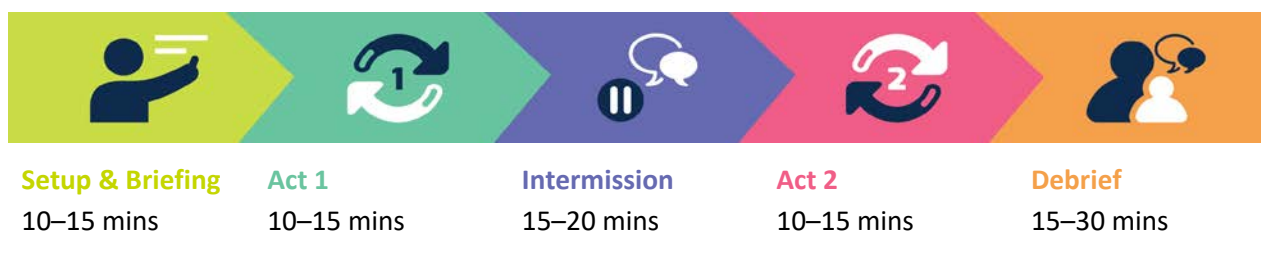
Simulation modality

It is recommended that a standardised patient or student in role takes on the role of the patient, but the simulation modality for the patient may be changed depending on available resources.

Length of scenario

The total time required for this scenario is estimated to be two hours. This includes preparation, the simulation and debriefing. In keeping with TTPSS pedagogy, each scenario is conducted twice, taking approximately 15 minutes each time. A brief Intermission occurs between Acts 1 and 2 and the simulation concludes with a 30-minute Debrief.

Whilst notional times are suggested below, the amount of time spent in each phase will depend on learners' needs and the level of complexity of the scenario.



Equipment

- Download the simulation resource pack from the online TTPSS Toolkit, which includes:
 - Cue and Antagonist Cards
 - Cast members' identification tags
 - Briefing sheets for distribution to actors
- Bed
- Chair
- Phone
- MIMS (hard copy or online access)
- Patient hospital gown
- Leg splint/dressing
- Hand hygiene (gel or alcohol)
- Vital signs equipment
- Medication trolley and cup
- Narcotics cupboard
- Patient ID bracelet with details corresponding to medication chart



Documentation

Documentation for the scenario can be printed from the TTPSS Toolkit or the information can be transcribed onto context-specific clinical charts. Whilst suggested documentation annotations are included here, information on the charts can be modified according to the local context and resources available. The following documentation requirements should be printed and collated into a patient chart to be used for the scenario:

- Falls Risk Tool
- Pressure Injury Risk Assessment Tool
- Medication chart
- Patient notes
- Early Warning Systems chart

Falls risk assessment:

- Requires assistance by 1 for mobilisation

Pressure Injury risk assessment:

- Score of 4 (low risk)



National Inpatient Medication Chart

Medications can be amended or modified according to specific scenario requirements. Examples of medications that may be included:

- PO - oxycodone hydrochloride - naloxone hydrochloride, SR 10/5 bd
- PO - PRN oxycodone hydrochloride, 5–10 mg qid, Max 50–60 mg/24hours
- PO - PRN tramadol hydrochloride, 50–100 mg qid, Max 400 mg/24hours
- PO - PRN ondansetron, 4–8 mg qid, Max 24 mg/24hours
- PO - PRN metoclopramide hydrochloride, 10 mg tds, Max 30 mg/24hours
- PO - PRN paracetamol, 1 g qid, Max 4 g/24hours

Patient's notes

Medical Orders to be written in the patient's chart

- Rest in bed until review by physio
- Elevation of limb
- Follow up X-ray in two days
- Splint, dressing and bandage to remain intact until reviewed
- Medication as per chart
- Diet as tolerated
- Notify if any concerns

Observation charts

Neurovascular chart

- Observations 4 hourly, all within normal range

Early Warning Systems chart

- Include two previous normal recordings of vital signs followed by the latest record showing:
 - Blood pressure 130/90 mmHg
 - Pulse 85 BPM
 - Respiratory rate 16/min
 - Temperature 36.9 °C
 - Blood oxygen saturation level (SpO₂) 98%
 - Pain score 4 out of 10

Setup and Briefing



Director

Organise physical set-up

- Gather equipment (see list p. 6)
- Ensure patient has gown and ID band
- Confirm patient chart is compiled and available (appropriate scenario option)
- Position patient according to brief, sitting on chair or sitting up in bed
- Set up desired classroom layout, e.g. horseshoe layout of chairs for audience and cast

Welcome learners and outline the following:

Learning outcomes for this scenario

At the completion of Scenario 1 learners will be able to:

- Administer and monitor the therapeutic use of medications and respond appropriately to medication errors and adverse drug reactions
- Collaborate and communicate effectively with other members of the healthcare team
- Reduce the risk of patients acquiring preventable healthcare-associated infections

The NQSHS standards most relevant to this scenario



Medication safety

Significance of scenario to patient safety

- Medication errors are the second most common type of incident reported in Australian hospitals, with error rates of over 18%
- 50% of medication errors are preventable through improved medication safety
- In Australian hospitals 38% of medication errors occur at the administration stage, indicating the critical need for nursing students to develop skills and knowledge about medication safety

The TTPSS approach

- Tag team is a group simulation that fosters inclusion of all learners who share responsibility for actions and outcomes by exchanging roles in the unfolding scenario through 'tagging'.

TTPSS rules

- Demonstrate professional behaviours (including use of mobile devices)
- Imagine that the simulation is real
- Participate enthusiastically
- Provide meaningful, honest and constructive feedback to your peers
- Learn from what went well during the simulation and from the mistakes
- Maintain respect and confidentiality during and after the simulation (this includes taking and sharing photos and videos)
- Maintain a loud clear voice and think out loud when practical

TTPSS components

Roles

- The Director (played by the educator or facilitator)
- Cast – 3 to 4 people play each nursing role
- Audience members
- Patient (Protagonist)

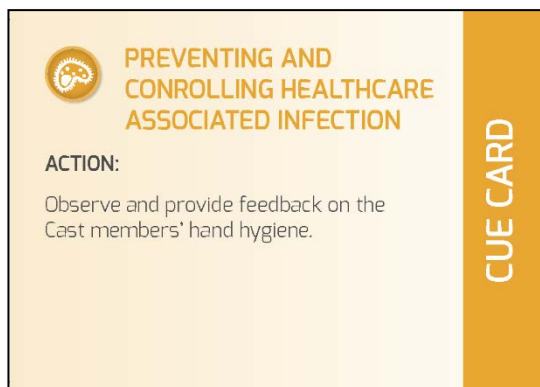
Structure

- Act 1
- Intermission
- Act 2
- Debrief

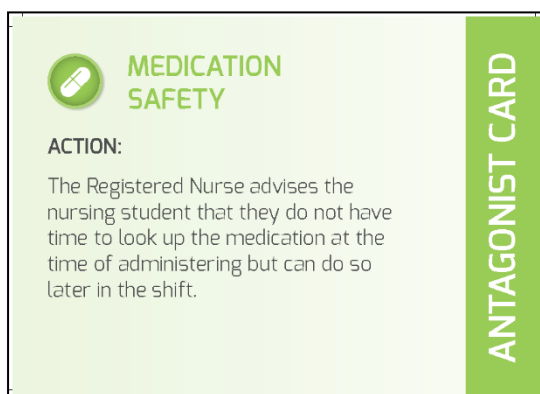
Tagging

- Tagging occurs when cast members exchange roles
- Tagging can be initiated by either the Director or cast members
- Tagging can be initiated by the word 'TAG' and there may be a touch of hands
- When tagged, the new cast member takes over where the previous cast member left off

Cards



Cue Cards are given to audience members to provide direction about what they are to observe and provide feedback on.



Antagonist Cards are given by the Director to cast members to increase the complexity of the scenario and promote critical thinking and resilience.

Learners should be aware that Antagonist Cards will require cast members to act in a manner that may not reflect their usual practice.

Prepare the group for simulation

- Allocate learners to either audience member or cast member roles
- Ensure a minimum of 3 cast members are allocated to tagging for each of the student and RN roles
- Orientate participants to the physical environment, documentation and equipment
- Distribute briefs to cast members
- Provide time for cast members to discuss scenario
- Distribute Cue Cards to the audience
- Remind learners to use loud clear voices and to think aloud when appropriate

Briefings

Protagonist (Patient)

Brief	(Please note the importance of remaining in character and only contribute to the scenario as per this brief. Do not provide additional information or details because this will detract from the purpose of the scenario)
Name	Jo Richards (male or female depending on learner playing role)
D.O.B.	01 January 1970
Situation	You are currently experiencing pain in your left leg. You are lying on your back with your left leg elevated. You grimace when moving.
Background	Two days ago, you had a motorbike accident that resulted in fractures to your tibia and fibula. You went to theatre soon after your arrival at the Emergency Department where you received internal fixations.
Assessment	When asked to rate your pain, you describe it as 4 out of 10. You will describe your pain as a dull ache. A neurovascular assessment shows your colour, warmth, movement and sensation are normal.



The patient (Protagonist) is centre stage

Audience members

Brief

You are required to observe the simulation and take notes as required. During the Intermission and Debrief you will be expected to provide feedback on specific aspects of the unfolding scenario. The focus of your feedback is on the Cue Card provided and related to the NQSHS Standards. Feedback should be constructive, supportive and focused on enhancing safe nursing practice.



Audience members observing the simulation and taking notes so that they are prepared to provide meaningful feedback during Intermission and Debrief

Nursing Student

Brief

You are to play the role of a nursing student. This role will be played out by any number of learners, depending on the tagging frequency. Each time a TAG occurs, the learner stepping into the role of the nursing student assumes the role from that point in time. It is intended that all previous communications, actions and responsibilities of the nursing student are known to the new learner. The concept behind tagging in and out is that one role is played by many people, lending different voices, thoughts and actions to one character. Your role is to provide care to Jo in response to identified needs. You have a specific focus on administering medication as required.

Registered Nurse (Preceptor)

Brief You are playing the role of a Registered Nurse who is responsible for supervising a nursing student. Your role is to provide support to the student who is allocated to care for this patient in the context of medication administration and recognition and response to acute deterioration. Further clarification may be provided by the Director according to your level of experience. You will be further directed in your role through an Antagonist Card given to you by the Director during the course of the play.

This role will be undertaken by a number of learners. Each time tagging occurs, the learner taking on the RN role takes over from where the previous person finished.



The nursing student and the Registered Nurse reading the patient's chart

Registered Nurse

Brief You are playing the role of a Registered Nurse who is working on the same ward (not specifically caring for this patient). You will be available to assist as required. Your role may be to provide support to the student who is allocated to care for this patient in the context of medication administration and recognition and response to acute deterioration. Further clarification may be provided by the Director according to your level of experience. You will be further directed in your role through an Antagonist Card given to you by the Director during the course of the play.

Support role (Family member)

Brief Your family member is Jo Richards, born 01 January 1970. Jo was involved in a motorbike accident 2 days ago, which resulted in fractures of the tibia and fibula. Jo went to theatre soon after arriving at the Emergency Department where an internal fixation was performed. There is no required interaction from the support person for scenario 1. You just need to be near Jo, providing support.

Let's get started



Act 1 (10–15 minutes depending on level of complexity)

Having explained the significance of simulation in relation to patient safety, the Director ensures that:

- Learners understand their roles
- Members of the cast know who is on stage at the start of the scenario and who is off-stage and available to be tagged
- Tagging occurs approximately **every three minutes** throughout Act 1
- Tagging can be initiated by the cast or the Director. It is not a reflection on performance but a strategy to optimise participation of cast members
- Cue Cards have been distributed to the Audience and they understand their purpose
- Antagonist Cards are distributed to cast members throughout the play to increase the complexity if required
- The Director will deliver a comprehensive handover using ISBAR to open each Act, to facilitate learners' understanding of effective communication
- Act 1 commences with the Director saying 'Begin' and concludes when the Director calls 'End'.

Handover to open the scene

Introduction	Jo Richards, born in 1970, is admitted under Dr Ponderis. Jo's family member is visiting at the moment.
Situation	Jo is 2 days postoperative, having required internal fixation to repair fractures of the tibia and fibula that occurred in a motorbike accident. Jo has a plaster backslab <i>in situ</i> .
Background	Jo has no significant medical history, does not require any regular medications, and has no known allergies.
Assessment	Jo requires ongoing 4th hourly neurovascular and vital sign observations, due at 08:00hrs. Previous observations are charted and within normal range. Backslab is intact. Jo is a falls risk and requires assistance x 1 to mobilise and has a score of 4 on the Pressure Injury Risk Assessment Tool.
Recommendations	Jo will be reviewed today by the surgical team, and the dressing/backslab is to remain intact until then, leg elevated. Jo requires a follow up X-ray this morning and needs to have a physio review later today.

Intermission (15–20 minutes)



After Act 1 concludes, the Director calls Intermission and uses Socratic questioning to facilitate reflection on and for practice.

- Audience members are asked to provide their observations of Act 1 with specific reference to their Cue Cards. The main focus should be on **feeding forward** and suggestions for how the simulation could be improved in Act 2.
- Cast members are then asked to respond to the suggestions given by the audience and to outline how they plan to improve their practice in Act 2.
- The students who were given Antagonist Cards can then be asked to provide feedback about having to undertake the specified actions
- It is preferable that the learners, as a group, identify the challenges, but it may be necessary for the Director to prompt and provide guidance.
- The Intermission should be no longer than 15–20 minutes.



Intermission – the Director asks the audience about their observations

Act 2 (10–15 minutes)



Following Intermission, Act 2 commences. This is a repeat of Act 1 using the same structure and approach, but the key difference is that the performance of cast members should have improved, based on the feedback provided during the Intermission.

Debrief (30 minutes)



At the conclusion of Act 2, the Director facilitates a Debrief with reference to the learning outcomes and following Pendleton's Rules of Feedback:

1. Clarify the focus of the simulation by reviewing the Learning Outcomes
2. Ask the person who played the role of the 'patient' to share their perspective of the simulation
3. Ask the audience to outline, with reference to the Cue Cards, what went well in the situation and what could have been done differently
4. Ask the cast what went well in the situation and what could have been done differently
5. Ask the cast members who responded to the Antagonist Cards how they thought and felt about being asked to take the specified actions
6. Provide your views of the simulation and lead the group in a discussion of how their learning will inform their future nursing practice

To ensure the Learning Outcomes have been addressed, the Director may extend the discussion by referring to the 'What If' questions. The 'What If' questions prompt learners to consider how they will transfer their learning to their future practice.

Evaluation

Each simulation scenario is accompanied by two evaluation instruments, a Knowledge Acquisition Test (KAT) (Appendix 1) and the Satisfaction with Simulation Experience Scale (SSES) (Appendix 3). The KAT is to be given to learners before their simulation experience and again immediately following Debrief. The SSES is given to learners following Debrief.



Scenario 2

Learning Outcomes

At the completion of Scenario 2, learners will be able to:

- Accurately assess, interpret and respond to individual patient data in a systematic and timely way
- Administer and monitor the therapeutic use of medications and respond appropriately to medication errors and adverse drug reactions
- Reduce the risk of patients acquiring preventable healthcare-associated infections
- Collaborate and communicate effectively with other members of the healthcare team

Key points from NSQHS Standards relevant to Scenario 2



Recognising and responding to acute deterioration

Highlighting the importance of:

- Accurately assessing the patient
- Documenting assessment using the appropriate tools
- Recognising acute deterioration
- Communicating and escalating the change in patient health status using ISBAR
- Understanding the RN's role in response to deterioration



Medication safety

Highlighting the importance of:

- Adhering to the six rights of medication administration
- Monitoring the effect of the medication and documenting accordingly
- Practicing within scope of practice and seeking direct supervision for medication administration

Whilst this scenario focuses on the above standards, educators are encouraged to capitalise on the many opportunities to address the following standards:



Healthcare associated infection

Highlighting the importance of:

- Preventing and controlling healthcare-associated infections.
- Identifying and managing patients presenting with or at risk of infection



Communicating for safety

Highlighting the importance of:

- Documenting critical information and clinical concerns including plan of care
- Communicating changes in client health status
- Partnering with consumers to enable them to be actively involved in their own care

Preparatory reading materials for students

Before the simulation, send learners a *Participant Information Handout* that includes the following:

- General information about the simulation, including dates, times, and venue
- A brief overview of the TTPSS method including the simulation rules
- The prologue to the scenario along with the roles of cast members
- The NSQHSS Standards relevant to the scenario
- Preparatory reading materials and a summary of key points.

The TTPSS toolkit includes a modifiable template where details of dates, times, and venue can be inserted (see Appendix 4). The Facilitator should also provide students with copies of the Queensland Adult Deterioration Detection System (Q-ADDS) chart (or the equivalent for their State or Territory) and the ISBAR information sheet. Both can be found in Appendix 4 of this document. Students should also be encouraged to visit the National Asthma Council Australia website and access *What is asthma?* The link to this resource is below.

Recommended readings for educators

Australian Commission on Safety and Quality in Health Care (2009). *Recognising and responding to clinical deterioration: Use of observation charts to identify clinical deterioration*.

<https://www.safetyandquality.gov.au/wp-content/uploads/2012/01/UsingObservationCharts-2009.pdf>

Australian Commission on Safety and Quality in Health Care (2012). *Safety and quality improvement guide Standard 4: Medication safety (October 2012)*.

https://www.safetyandquality.gov.au/wp-content/uploads/2012/10/Standard4_Oct_2012_WEB.pdf

Australian Commission on Safety and Quality in Health Care (2012). *Safety and quality improvement guide Standard 9: Recognising and responding to clinical deterioration in acute health care (October 2012)*. <https://www.safetyandquality.gov.au/wp-content/uploads/2011/09/NSQHS-Standards-Sept-2012.pdf>

Australian Commission on Safety and Quality in Health Care. <http://www.safetyandquality.gov.au/>

Australian Government Therapeutic Goods Administration (TGA). <http://www.tga.gov.au/medicines>

Australian Commission on Safety and Quality in Health Care (2010). National consensus statement: Essential elements for recognising and responding to clinical deterioration.

https://www.safetyandquality.gov.au/wp-content/uploads/2012/01/national_consensus_statement.pdf

Australian Commission on Safety and Quality in Health Care (2008). *Recognising and responding to clinical deterioration: Background paper*. <https://www.safetyandquality.gov.au/wp-content/uploads/2012/01/BackgroundPaper.pdf>

Australian Commission on Safety and Quality in Health Care (2016). *Vital signs 2016: The state of safety and quality in Australian health care*. www.safetyandquality.gov.au

Breivik, H., Borchgrevink, P. C., Allen, S. M., Rosseland, L. A., Romundstad, L., Breivik Hals, E. K., . . . Stubhaug, A. (2008). Assessment of pain. *BJA: British Journal of Anaesthesia*, 101, 17–24.

[doi:10.1093/bja/aen103](https://doi.org/10.1093/bja/aen103)

MIMS Australia homepage. <http://www.mims.com.au/>

- Raban, M. Z., Lehnbohm, E. C., & Westbrook, J. I. (2013). *Interventions to reduce interruptions during medication preparation and administration*. Centre for Health Systems and Safety Research, Australian Institute of Health Innovation, on behalf of the Australian Commission on Safety and Quality in Health Care. <https://www.safetyandquality.gov.au/wp-content/uploads/2013/12/Evidence-briefings-on-interventions-to-improve-medication-safety-Reducing-interruptions-during-medication-preparation-and-administration-PDF-1.2MB.pdf>
- Ramasamy, S., Baysari, M. T., Lehnbohm, E. C., & Westbrook, J. I. (2013). *Double-checking medication administration*, Centre for Health Systems and Safety Research, Australian Institute of Health Innovation, on behalf of the Australian Commission on Safety and Quality in Health Care. <https://www.safetyandquality.gov.au/wp-content/uploads/2013/12/Evidence-briefings-on-interventions-to-improve-medication-safety-Double-checking-medication-administration-PDF-888KB.pdf>
- Reid-Searl, K., & Happell, B. (2012). Supervising nursing students administering medication: A perspective from registered nurses, *Journal of Clinical Nursing*, 21, 1998–2005. DOI: [10.1111/j.1365-2702.2011.03976.x](https://doi.org/10.1111/j.1365-2702.2011.03976.x)
- Reid-Searl, K., & Happell, B. (2011). Factors influencing the supervision of nursing students administering medication: The registered nurse perspective. *Collegian*, 18, 139–146.
- Roughhead, L., Semple, S., & Rosenfeld, E. (2013). *Literature review: Medication safety in Australia*. Australian Commission on Safety and Quality in Health Care. <https://www.safetyandquality.gov.au/wp-content/uploads/2013/08/Literature-Review-Medication-Safety-in-Australia-2013.pdf>
- Sansom, L. (1999). The Australian National Medicinal Drug Policy, *Journal of Quality in Clinical Practice*, 19, 31–35.

Scenario 2 prologue

This scenario involves a nursing student who is caring for a post-operative orthopaedic patient who is experiencing pain. The nursing student will be working with a Registered Nurse preceptor. The scenario provides the opportunity for learners to engage with the following:

- Clinical handover (given by the Director, guided by ISBAR)
- Pain assessment
- Neurovascular assessment
- Safe administration of medication
- Evaluating effectiveness of analgesic medication
- Recognising and responding to deterioration
- Escalating care using ISBAR
- Critical thinking skills

The setting is a surgical ward. Information about the patient will be provided at the clinical handover given by the Director at the beginning of the scenario.

Environment

The simulation environment can be in any location deemed suitable, but the space must be appropriate for the number of learners.

Roles

- The Director (played by the educator or facilitator)
- A nursing student
- Two Registered Nurses (possible Antagonists), one being the student's preceptor, the other to be 'on hand' as required
- One patient (Protagonist)
- One family member
- Audience members

In this simulation learners will tag in and out of the nursing student and RN roles, resulting in many cast members playing one role.

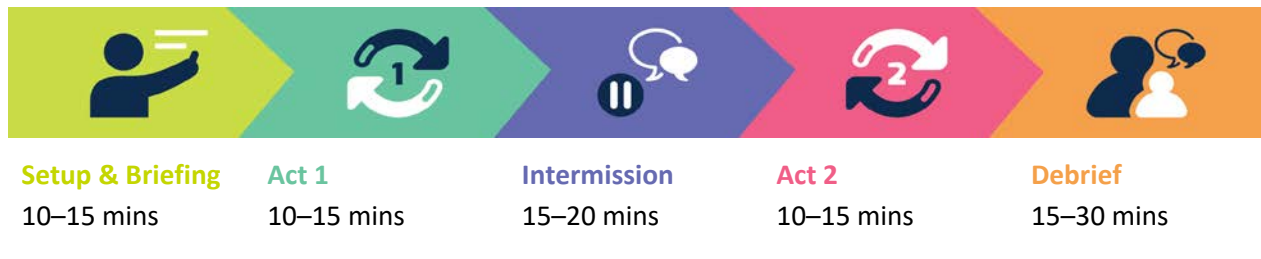
Simulation modality

It is recommended that a standardised patient or student in role takes on the role of the patient, however the simulation modality for the patient may be changed depending on available resources.

Length of scenario

The total time required for this scenario is estimated to be two hours. This includes preparation, the simulation and debriefing. In keeping with the TTPSS pedagogy, each scenario is conducted twice, taking approximately 15 minutes each time. A brief Intermission occurs between Acts 1 and 2 and the simulation concludes with a 30-minute Debrief.

Whilst notional times are suggested below, the amount of time spent in each phase will depend on the learners' needs and the level of complexity of the scenario.



Equipment

- Download the simulation resource pack from the online TTPSS Toolkit, which includes:
 - Cue and Antagonist Cards
 - Cast members' identification tags
 - Briefing sheets for distribution to actors
- Phone
- Bed
- Chair
- MIMS (hard copy or online access)
- Patient hospital gown
- Medication cup
- Leg splint/dressing and bandage
- Hand hygiene (gel or alcohol)
- Vital signs equipment
- Medication trolley
- Narcotics cupboard
- Patient ID bracelet with details corresponding to medication chart

Documentation

Documentation for the scenario can be printed from the TTPSS Toolkit or the information can be transcribed onto context-specific clinical charts. Whilst suggested documentation annotations are included here, the information on the charts can also be modified according to the local context and resources available. The following documentation requirements should be printed and collated into a patient chart to be used for the scenario.

- Falls Risk Tool
- Pressure Injury Risk Assessment Tool
- Medication chart
- Patient notes
- Neurovascular observation chart
- Early Warning Systems chart



Falls risk assessment:

- Requires assistance by 1 for mobilisation

Pressure Injury risk assessment:

- Score of 4 (low risk)

National Inpatient Medication Chart

Medication can be amended/ modified according to specific scenario requirements. Examples of medications that may be included:

- PO - oxycodone hydrochloride - naloxone hydrochloride, SR 10/5 bd
- PO - PRN oxycodone hydrochloride, 5–10 mg qid, Max 50–60 mg/24hours
- PO - PRN tramadol hydrochloride, 50–100 mg qid, Max 400 mg/24hours
- PO - PRN ondansetron, 4–8mg qid, Max 24 mg/24hours
- PO - PRN metoclopramide hydrochloride, 10 mg tds, Max 30 mg/24hours
- PO - PRN paracetamol, 1 g qid, Max 4 g/24hours

Patient's notes

Medical Orders to be written in the patient's chart

- Rest in bed until review by physio
- Elevation of limb
- Follow up X-ray in two days
- Splint, dressing and bandage to remain intact until reviewed
- Medication as per chart
- Diet as tolerated
- Notify if any concerns

Observation charts

Neurovascular chart

- Observations 4 hourly, all within normal range

Early Warning Systems chart

- Include two previous normal recording of vital signs followed by the latest record showing:
 - Blood pressure 165/95 mmHg
 - Pulse 95 BPM
 - Respiratory rate 24/min
 - Temperature 36.9 °C
 - Blood oxygen saturation level (SpO₂) 98%
 - Pain score 8 out of 10

Setup and Briefing



Director

Organise physical set-up

- Gather equipment (see list p. 28)
- Ensure patient has gown and ID band
- Confirm patient chart is compiled and available (appropriate scenario option)
- Position patient according to brief, sitting on chair, or sitting up in bed
- Set up desired classroom layout, e.g. horseshoe layout of chairs for audience and cast

Welcome learners and outline the following:

Learning outcomes for this scenario

At the completion of Scenario 2 learners will be able to:

- Accurately assess, interpret and respond to individual patient data in a systematic and timely way
- Administer and monitor the therapeutic use of medications and respond appropriately to medication errors and adverse drug reactions
- Reduce the risk of patients acquiring preventable healthcare-associated infections
- Collaborate and communicate effectively with other members of the healthcare team

The NQSHS standards most relevant to this scenario



Recognising and responding to acute deterioration



Medication safety

Significance of scenario to patient safety

- Recognising and responding to a patient who is clinically deteriorating is essential if optimal patient outcomes are to be achieved (ACSQHC, 2012)
- Physiological signs of clinical deterioration are observable for many hours preceding adverse events such as respiratory or cardiac arrest, and if detected early, facilitate improved patient outcomes (Buist et al., 2002; Calzavacca et al., 2010).
- Two factors that contribute to undetected patient deterioration are inconsistent monitoring of vital sign observations and a lack of understanding regarding the significance of physiological changes patients exhibit preceding clinical decline (ACSQHC, 2012)
- Medication errors are the second most common type of incident reported in Australian hospitals with error rates of over 18%
- 50% of medication errors are preventable through improved medication safety
- In Australian hospitals 38% of medication errors occur at the administration stage, indicating the critical need for nursing students to develop skills and knowledge about medication safety

The TTPSS approach

- Tag team is a group simulation that fosters inclusion of all learners who share responsibility for actions and outcomes by exchanging roles in the unfolding scenario by 'tagging'.

TTPSS rules

- Demonstrate professional behaviours (including the use of mobile devices)
- Imagine that the simulation is real
- Participate enthusiastically
- Provide meaningful, honest and constructive feedback to your peers
- Learn from what went well during the simulation and from the mistakes
- Maintain respect and confidentiality during and after the simulation (this includes taking and sharing photos and videos)
- Maintain a loud clear voice and think out loud when practical

TTPSS components

Roles

- The Director (played by the educator or facilitator)
- Cast – 3 to 4 people play each nursing role
- Audience members
- Patient (protagonist)

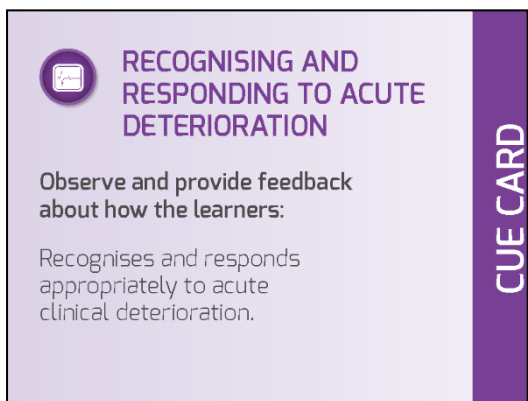
Structure

- Act 1
- Intermission
- Act 2
- Debrief

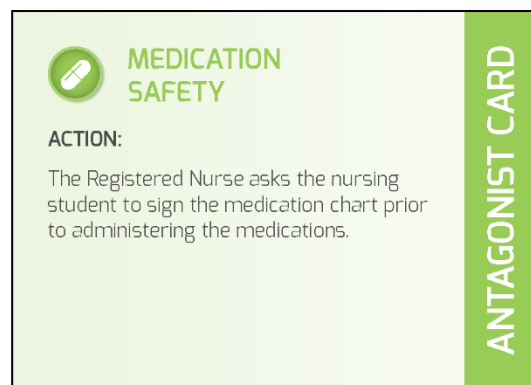
Tagging

- Tagging occurs when cast members exchange roles
- Tagging can be initiated by either the Director or cast members
- Tagging can be initiated by the word 'TAG' and there may be a touch of hands
- When tagged, the new cast member takes over where the previous cast member left off.

Cards



Cue Cards are given to audience members to provide direction about what they are to observe and provide feedback on.



Antagonist Cards are given by the Director to cast members to increase the complexity of the scenario and promote critical thinking and resilience.

Learners should be aware that Antagonist Cards may require that cast members act in a manner that may not reflect their usual practice.

Prepare the group for simulation

- Allocate learners to either audience member or cast member roles
- Ensure a minimum of 3 cast members are allocated to tagging for the student and RN roles
- Orientate participants to the physical environment, documentation and equipment
- Distribute briefs to cast members
- Provide time for cast members to discuss scenario
- Distribute Cue Cards to the audience
- Remind learners to use loud clear voices and to think aloud when appropriate

Briefings

Protagonist (Patient)

Brief	(Please note the importance of remaining in character and only contribute to the scenario as per this brief. Do not provide additional information or details because this will detract from the purpose of the scenario)
Name	Jo Richards (Male or Female dependant on learner playing role)
D.O.B.	01 January 1970
Situation	You are currently experiencing pain in your left leg. You are lying on your back with your left leg elevated. You grimace when moving.
Background	Two days ago, you had a motorbike accident that resulted in fractures to your tibia and fibula. You went to theatre soon after your arrival at the Emergency Department where you received internal fixations.
Assessment	When asked to rate your pain, you describe it as 8 out of 10. When asked to describe your pain, you say the skin under your bandage feels tingling and burning, and the muscle feels tight. You say your pain has increased significantly in the last two hours. Neurovascularly, you have no sensation in your affected foot, but pain is excruciating when you move it.



The nursing student collecting vital signs from the patient (Protagonist)

Nursing Student

Brief You are to play the role of a nursing student. This role will be played out by any number of learners, depending on the tagging frequency. Each time a TAG occurs, the learner stepping into the role of the nursing student assumes the role of the nursing student from that point in time. It is intended that all previous communications, actions and responsibilities of the nursing student are known to the new learner. The concept behind tagging in and out is that one role is played by many people, lending different voices, thoughts and actions to one character. Your role is to provide care to Jo in response to identified needs. You have a specific focus on administering medication as required. Further, you are to assess current neurovascular, pain and vital sign status using appropriate assessment tools and respond to the findings accordingly.



Nurses performing a medication check

Registered Nurse

Brief You are playing the role of a Registered Nurse who is working on the same ward (not specifically caring for this patient). You will be available to assist as required. Your role may be to provide support to the student who is allocated to care for this patient in the contexts of medication administration and recognition and response to acute deterioration. Further clarification may be provided by the Director according to your level of experience. You will be further directed in your role through the provision of an Antagonist Card given to you by the Director during the course of the play.

This role will be undertaken by a number of learners. Each time tagging occurs, the learner taking on the RN role takes over from where the previous one finished.

Registered Nurse (Preceptor)

Brief You are a Registered Nurse who is responsible for supervising a nursing student. Your role is to provide support to the student who is allocated to care for this patient in the contexts of medication administration and recognition and response to acute deterioration. Further clarification may be provided by the Director according to your level of experience. You will be further directed in your role through the provision of an Antagonist Card given to you by the Director during the course of the play.

This role will be undertaken by a number of learners. Each time tagging occurs, the learner taking on the RN role takes over from where the previous one finished.



Registered Nurse and nursing student performing a medication check

Support role (Family member)

Brief Your family member is Jo Richards, born 01 January 1970. Jo was involved in a motorbike accident 2 days ago, which resulted in fractures of the tibia and fibula. Jo went to theatre soon after arriving at the Emergency Department where an internal fixation was performed.

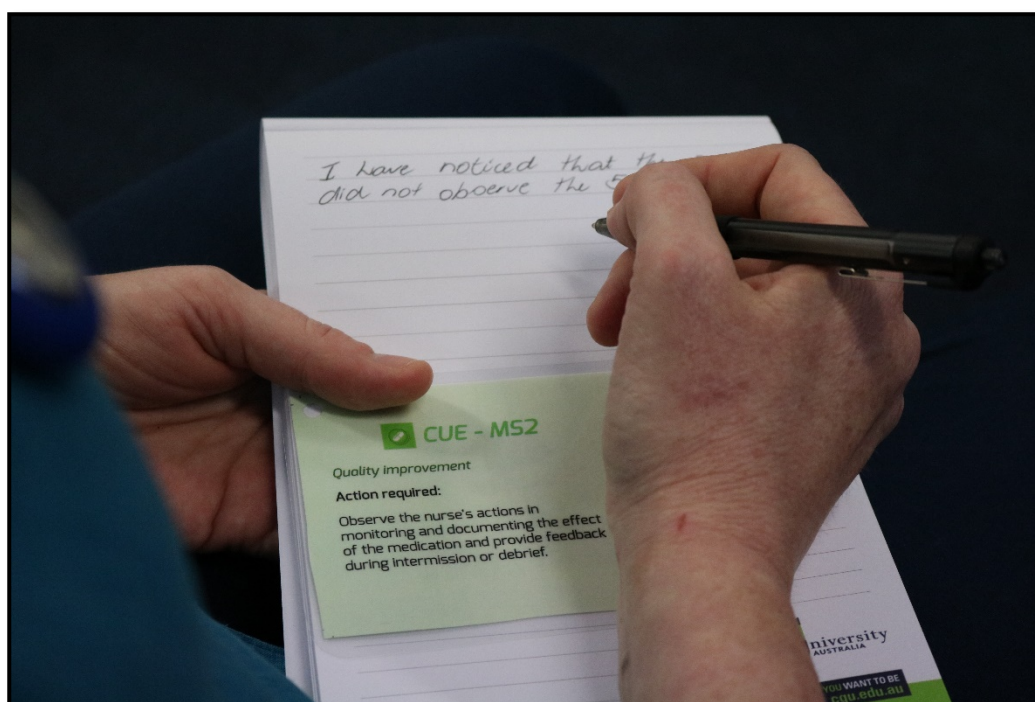
Jo's pain has increased significantly in the last two hours. Jo can no longer feel anything in her left foot unless moving it, which is excruciatingly painful. (You are to interact with staff voicing your concern about the amount of pain Jo appears to be experiencing.)

If you are asked to leave your family member at any stage, you can respond by stating that you do not wish to leave and that you want to stay.

Audience members

Brief

You are required to observe the simulation and take notes as required. During the Intermission and Debrief you will be expected to provide feedback on specific aspects of the unfolding scenario. The focus of your feedback is on the Cue Card provided and related to the NQSHS Standards. Feedback should be constructive, supportive and focused on enhancing safe nursing practice.



Audience member taking notes based on the Cue Card

Let's get started



Act 1 (10–15 minutes depending on level of complexity)

Having explained the significance of simulation in relation to patient safety, the Director ensures that:

- Learners understand their roles
- Members of the cast know who is on stage at the start of the scenario and who is off-stage and available to be tagged
- Tagging occurs approximately **every three minutes** throughout Act 1
- Tagging can be initiated by the cast or the Director. It is not a reflection on performance but a strategy to optimise participation of cast members
- Cue Cards have been distributed to the audience and they understand their purpose
- Antagonist Cards are distributed to cast members throughout the play and are meant to challenge learners by increasing the complexity of the Act
- The Director will deliver a comprehensive handover using ISBAR to open each Act, to facilitate learners' understanding of effective communication
- Act 1 commences with the Director saying 'Begin' and concludes when the Director calls 'End'

Handover to open the scene

Introduction	Jo Richards, born in 1970, is admitted under Dr Ponderis. Jo's family member is visiting at the moment.
Situation	Jo is 2 days postoperative, having required internal fixation to repair fractures of the tibia and fibula that occurred in a motorbike accident. Jo has a plaster backslab <i>in situ</i> .
Background	Jo has no significant medical history, does not require any regular medications, and has no known allergies.
Assessment	Jo requires ongoing 4th hourly neurovascular and vital sign observations, due at 08:00hrs. Previous observations are charted and within normal range. Backslab is intact. Jo is a falls risk and requires assistance x 1 to mobilise and has a score of 4 on the Pressure Injury Risk Assessment Tool.
Recommendations	Jo will be reviewed today by the surgical team, and the dressing/backslab is to remain intact until then, leg elevated. Jo requires a follow up X-ray this morning and needs to have a physio review later today.

Intermission (15–20 minutes)



After Act 1 concludes, the Director calls Intermission and uses Socratic questioning to facilitate reflection on and for practice.

- Audience members are asked to provide their observations of Act 1 with specific reference to their Cue Cards. The main focus should be on **feeding forward** and suggestions for how the simulation could be improved in Act 2.
- Cast members are then asked to respond to the suggestions given by the Audience and to outline how they plan to improve their practice in Act 2.
- The students who were given the Antagonist Cards can then be asked to provide feedback about having to undertake the specified actions
- It is preferable that the learners, as a group, identify the challenges, but it may be necessary for the Director to prompt and provide guidance.
- The Intermission should be no longer than 15–20 minutes.



Intermission – the Director asks the audience about their observations

Act 2 (10–15 minutes)



Following Intermission, Act 2 commences. This is a repeat of Act 1 using the same structure and approach, but the key difference is that the performance of cast members should have improved, based on the feedback provided during the Intermission.

Debrief (30 minutes)



At the conclusion of Act 2, the Director facilitates a Debrief with reference to the learning outcomes and following Pendleton's Rules of Feedback:

1. Clarify the focus of the simulation by reviewing the Learning Outcomes
2. Ask the person who played the role of the 'patient' to share their perspective of the simulation
3. Ask the audience to outline, with reference to the Cue Cards, what went well in the situation and what could have been done differently
4. Ask the cast what went well in the situation and what could have been done differently
5. Ask the cast members who responded to the Antagonist Cards how they thought and felt about being asked to take the specified actions
6. Provide your views of the simulation and lead the group in a discussion of how their learning will inform their future nursing practice

To ensure the Learning Outcomes have been addressed, the Director may extend the discussion by referring to the 'What If' questions. The 'What If' questions prompt learners to consider how they will transfer their learning to their future practice.

Evaluation

Each simulation scenario is accompanied by two evaluation instruments, a Knowledge Acquisition Test (KAT) (Appendix 1) and the Satisfaction with Simulation Experience Scale (SSES) (Appendix 3). The KAT is to be given to learners before their simulation experience and again immediately following Debrief. The SSES is given to learners following Debrief.



References

- Applegarth, J., & Flenady, T. (2016). Pain management. In A. Berman, S. Snyder, T. Levett-Jones, T. Dwyer, M. Hales, N. Harvey, Y. Luxford, L. Moxham, T. Park, B. Parker, K. Reid-Searl, & D. Stanley (Eds.), *Kozier and Erb's fundamentals of nursing* (4th ed., Vol. 3, pp. 1471–1515). Melbourne, Victoria: Pearson.
- Australian Commission on Safety and Quality in Health Care (2008). *Recognising and responding to clinical deterioration: Background paper*. <https://www.safetyandquality.gov.au/wp-content/uploads/2012/01/BackgroundPaper.pdf>
- Australian Commission on Safety and Quality in Health Care (2009). *Recognising and responding to clinical deterioration: Use of observation charts to identify clinical deterioration*. <https://www.safetyandquality.gov.au/wp-content/uploads/2012/01/UsingObservationCharts-2009.pdf>
- Australian Commission on Safety and Quality in Health Care (2010). *National consensus statement: Essential elements for recognising and responding to clinical deterioration*. https://www.safetyandquality.gov.au/wp-content/uploads/2012/01/national_consensus_statement.pdf
- Australian Commission on Safety and Quality in Health Care (2012). *Safety and quality improvement guide Standard 4: Medication safety (October 2012)*. https://www.safetyandquality.gov.au/wp-content/uploads/2012/10/Standard4_Oct_2012_WEB.pdf
- Australian Commission on Safety and Quality in Health Care (2012). *Safety and quality improvement guide Standard 9: Recognising and responding to clinical deterioration in acute health care (October 2012)*. <https://www.safetyandquality.gov.au/wp-content/uploads/2011/09/NSQHS-Standards-Sept-2012.pdf>
- Australian Commission on Safety and Quality in Health Care (2016). *Vital signs 2016: The state of safety and quality in Australian health care*. <https://www.safetyandquality.gov.au/wp-content/uploads/2016/11/Vital-Signs-2016-PDF.pdf>
- Australian Commission on Safety and Quality in Health Care (2017). *National safety and quality health service standards* (2nd ed.). <https://www.safetyandquality.gov.au/wp-content/uploads/2017/12/National-Safety-and-Quality-Health-Service-Standards-second-edition.pdf>
- Australian Commission on Safety and Quality in Health Care (2017). *Recommendations for terminology, abbreviations and symbols used in medicines documentation*. <https://www.safetyandquality.gov.au/publications/recommendations-for-terminology-abbreviations-and-symbols-used-in-medicines-documentation/>
- Australian Commission on Safety and Quality in Health Care and NSW Therapeutic Advisory Group Inc. (2014). *National quality use of medicines indicators for Australian hospitals: User guide*. https://www.safetyandquality.gov.au/wp-content/uploads/2014/11/SAQ186_National_QUM_Indicators_UserGuide-clientPRINT-D14-39597.pdf
- Breivik, H., Borchgrevink, P. C., Allen, S. M., Rosseland, L. A., Romundstad, L., Breivik Hals, E. K., . . . Stubhaug, A. (2008). Assessment of pain. *BJA: British Journal of Anaesthesia*, *101*, 17–24. [doi:10.1093/bja/aen103](https://doi.org/10.1093/bja/aen103)
- Buist, M., Moore, G., Bernard, S., Waxman, B., Anderson, J., & Nguyen, T. (2002). Effects of a medical emergency team on reduction of incidence of and mortality from unexpected cardiac arrests in hospital: Preliminary study. *British Medical Journal*, *324*, 387–390.

- Calzavacca, P., Licari, E., Tee, A., Egi, M., Downey, A., Quach, J., . . . Bellomo, R. (2010). The impact of Rapid Response System on delayed emergency team activation patient characteristics and outcomes—A follow-up study. *Resuscitation*, *81*, 31–35. doi: <https://doi.org/10.1016/j.resuscitation.2009.09.026>
- Johnson, M., Tran, D., & Young, H. (2011). Developing risk management behaviours for nurses through medication incident analysis. *International Journal of Nursing Practice*, *17*, 548–555. doi: [10.1111/j.1440-172X.2011.01977.x](https://doi.org/10.1111/j.1440-172X.2011.01977.x)
- Levett-Jones, T., Andersen, P., Reid-Searl, K., Guinea, S., McAllister, M., Lapkin, S., Palmer, L. & Niddrie, M. (2015). Tag team simulation: An innovative approach for promoting active engagement of participants and observers during group simulations. *Nurse Education in Practice*, *15*, 345–352. [http://www.nurseeducationinpractice.com/article/S1471-5953\(15\)00061-X/pdf](http://www.nurseeducationinpractice.com/article/S1471-5953(15)00061-X/pdf)
- Raban, M. Z., Lehnбом, E. C., & Westbrook, J. I. (2013). *Interventions to reduce interruptions during medication preparation and administration*. Centre for Health Systems and Safety Research, Australian Institute of Health Innovation, on behalf of the Australian Commission on Safety and Quality in Health Care. <https://www.safetyandquality.gov.au/wp-content/uploads/2013/12/Evidence-briefings-on-interventions-to-improve-medication-safety-Reducing-interruptions-during-medication-preparation-and-administration-PDF-1.2MB.pdf>
- Ramasamy, S., Baysari, M. T., Lehnбом, E. C., & Westbrook, J. I. (2013). *Double-checking medication administration*. Centre for Health Systems and Safety Research, Australian Institute of Health Innovation, on behalf of the Australian Commission on Safety and Quality in Health Care. <https://www.safetyandquality.gov.au/wp-content/uploads/2013/12/Evidence-briefings-on-interventions-to-improve-medication-safety-Double-checking-medication-administration-PDF-888KB.pdf>
- Reid-Searl, K., & Happell, B. (2011). Factors influencing the supervision of nursing students administering medication: The registered nurse perspective. *Collegian*, *18*, 139–146.
- Reid-Searl, K., & Happell, B. (2012). Supervising nursing students administering medication: A perspective from registered nurses, *Journal of Clinical Nursing*, *21*, 1998–2005. DOI: [10.1111/j.1365-2702.2011.03976.x](https://doi.org/10.1111/j.1365-2702.2011.03976.x)
- Reid-Searl, K., Moxham, L., & Happell, B. (2010). Enhancing patient safety: The importance of direct supervision for avoiding medication errors and near misses by undergraduate nursing students, *International Journal of Nursing Practice*, *16*, 225–232.
- Reid-Searl, K., Moxham, L., Walker, S., & Happell, B. (2010). Whatever it takes: Nursing students' experiences of administering medication in the clinical setting. *Qualitative Health Research*, *20*, 952–965.
- Roughhead, E. & Semple, S. (2009). Medication safety in acute care in Australia: Where are we now? Part 1: A review of the extent and causes of medication problems 2002–2008. *Australia and New Zealand Health Policy*, *6*, 18.
- Roughhead, L., Semple, S., & Rosenfeld, E. (2013). *Literature review: Medication safety in Australia*. Australian Commission on Safety and Quality in Health Care. <https://www.safetyandquality.gov.au/wp-content/uploads/2013/08/Literature-Review-Medication-Safety-in-Australia-2013.pdf>
- Sansom, L. (1999). The Australian National Medicinal Drug Policy, *Journal of Quality in Clinical Practice*, *19*, 31–35.

Appendices

Appendix 1 – scenario 1 resources

Cue Cards Scenario 1

Please note: The **Cue Cards** given to audience members provide direction about what they are to observe and provide feedback on. The Facilitator should select Cue Cards that are most relevant to the learning outcomes and purpose of the simulation. Not all Cue Cards are required.



Medication Safety

Observe and provide feedback about how the learners:

- Demonstrate safe and appropriate administration of medications (orally, IM, SCI and IV) making appropriate checks (e.g. 6 rights)
- Work within own scope of practice with regard to medication administration



Preventing and Controlling Healthcare-associated Infection

Observe and provide feedback about how the learners:

- Attempt to prevent health care associated infections
- Educate patients and visitors about infection control practices



Communicating for Safety

Observe and provide feedback about how the learners:

- Provide clear and coherent handover reports to different members of the healthcare team
- Communicate in a respectful, responsive and courteous manner with all team members

Antagonist Cards Scenario 1



Medication Safety

- **RN** – Tell the nursing student that you do not need to supervise the administration of medications with them and leave the room
- **RN** – Tell the nursing student to sign the medication chart before administering the medications
- **RN** – Tell the nursing student that you have total confidence in them, and that they can go ahead and give the medication while you attend to the patient in the opposite bed
- **RN** – Tell the nursing student to leave the medication at the bedside so that the patient can take it with their next meal



Preventing and Controlling Healthcare-associated Infection

- **RN (Preceptor)** - Advise the nursing student that the use of hand gel will not be required throughout care of this patient, because hand gel is only used on soiled hands
- **RN (Preceptor)** - Advise the nursing student that because this is a clean patient, the five moments of hand hygiene do not apply



Communicating for Safety

- **RN (Preceptor)** - Advise the nursing student that they do not need to keep the patient informed about their treatment
- **RN (Preceptor)** - Advise the nursing student that students should be seen and not heard

'What if' questions Scenario 1

Please note: The **'What if' questions** can be used as needed during the Debrief to prompt learners to consider how they will transfer their learning to their future practice.



Medication Safety

- What if the patient does not have the correct ID but the Registered Nurse says proceed?
- What if the patient refuses medication but the Registered Nurse says you must force the patient to take it or hide it in their meal?
- What if the order is not clear but the Registered Nurse says it is fine?
- What if the Registered Nurse insists that the nursing student administers medication without supervision?
- What if the Registered Nurse asks the student to sign the chart before administering the medications?
- What if the Registered Nurse asks the nursing student to administer medication by a route that they have not been taught about?
- What if the Registered Nurse advises the student that they do not have time to look up the medication at the time of administering but the student can do later in the shift?
- What if the patient verbalises that they have an allergy to the prescribed medication?
- What if the patient cannot verbalise how much pain they are in? How do you know which and how much medication to administer?

Knowledge Acquisition Test – Scenario 1

Please circle one answer only from the numbered selection after each question

1. Undergraduate nursing students can administer medication to a patient

- a) Only if the RN has prepared the medication for the student
- b) Only when the RN is near the student
- c) Only if the RN has time to be close by, indirectly supervising
- d) Only when the RN has checked the medication and provides direct supervision

- 1. a b c d
- 2. b c d
- 3. c d
- 4. **d**

2. The six rights of medication administration include

- a) The right patient
- b) The right time
- c) The right route
- d) The right drug
- e) The right dose
- f) The right documentation

- 1. a b c d
- 2. **all the above**
- 3. a b
- 4. a

3. The nursing student is not legally responsible for medications (categorised S4 and above) that they administer when they are indirectly supervised by an RN.

- 1. True
- 2. **False**

4. Regarding medications, the student becomes familiar with the action of a patient's prescribed medication

- a) Prior to administration
- b) At the end of the shift
- c) Only as required
- d) Only if they do not remember it

- 1. a c d
- 2. a d
- 3. a b c d
- 4. **a**

5. Paracetamol is a medication that is considered an 'over the counter' medication, hence direct supervision of a student is not required when administering it to a patient.

- 1. True
- 2. **False**

6. The administration of medication by student nurses is influenced directly by

- a) The policy of the ward
- b) The poisons and regulation act
- c) The decision of the patient
- d) The scope of practice of the student

- 1. c d
- 2. **a b c d**
- 3. d
- 4. b c d

7. The following are acceptable levels of supervision for the Registered Nurse to provide to the student when administering medications

- a) Being directly present with the student from preparation to administration
- b) Being present in the patient's room near to the student
- c) Being directly present with the student for administration of S8 medications and above
- d) Being directly present for administration

- 1. a b
- 2. a b c d
- 3. **a**
- 4. a b c

8. Student nurses can administer medications on their own in the following circumstances
- a) When it is an over the counter medication
 - b) At the Registered Nurse's request
 - c) When students are in the final term of their final year
 - d) Upon specific direction of the medical officer who states they will take full responsibility for the student

- 1. d
- 2. a b d
- 3. none of the above**
- 4. a b c d

9. It is acceptable to administer a medication left at the patient's bedside so long as

- a) The person who prepared it is still on shift
- b) The patient knows it is for them
- c) You witnessed the nurse leave it there
- d) You can identify the medication clearly

- 1. none of the above**
- 2. c d
- 3. b c d
- 4. a b c d

10. The scope of practice of the student is influenced by

- a) The student's past experience prior to nursing
- b) The age of the student
- c) The student's other qualifications
- d) What the student has been taught in their nursing program

- 1. a b c d
- 2. a b c
- 3. c d
- 4. d**

Appendix 2 – scenario 2 resources

Cue Cards Scenario 2

Please note: The **Cue Cards** given to audience members provide direction about what they are to observe and provide feedback on. The Facilitator should select Cue Cards that are most relevant to the learning outcomes and purpose of the simulation. Not all Cue Cards are required.



Medication Safety

Observe and provide feedback about how the learners:

- Demonstrate safe and appropriate administration of medications (orally, IM, SCI and IV) making appropriate checks (e.g. 6 rights)
- Work within own scope of practice with regard to medication administration



Recognition and Response to acute deterioration

Observe and provide feedback about how the learners:

- Use early warning systems and chart appropriately
- Recognise and respond appropriately to acute clinical deterioration



Preventing and Controlling Healthcare-associated Infection

Observe and provide feedback about how the learners:

- Attempt to prevent health care associated infections
- Educate patients and visitors about infection control practices



Communicating for Safety

Observe and provide feedback about how the learners:

- Provide clear and coherent handover reports to different members of the healthcare team
- Communicate in a respectful, responsive and courteous manner with all team members



Recognising and Responding to Acute Deterioration

- **RN (Preceptor)** – Advise the nursing student that there is no need to document the vital signs
- **RN (Preceptor)** – Advise the nursing student that there is no need to contact the orthopaedic team and there is no need to escalate, we can look after the patient on the ward
- **RN (Preceptor)** – Advise the nursing student that monitoring respiratory rates is irrelevant for this type of patient, because they are orthopaedic, not respiratory



Medication Safety

- **RN** – Tell the nursing student that they do not need to supervise the administration of medications and leave the room
- **RN** – Tell the nursing student to sign the medication chart before administering the medications
- **RN** – Tell the nursing student that they have total confidence in them and that they can go ahead and give the medication while the Registered Nurse attends to the patient in the opposite bed.



Preventing and Controlling Healthcare-associated Infection

- **RN (Preceptor)** – Advise the nursing student that the use of hand gel will not be required throughout care of this patient, because hand gel is only used on soiled hands
- **RN (Preceptor)** - Advise the nursing student that because this is a clean patient, the five moments of hand hygiene do not apply



Communicating for Safety

- **RN (Preceptor)** – Advise the nursing student that they do not need to keep the patient informed regarding their treatment
- **RN (Preceptor)** – Advise the nursing student that students should be seen and not heard

'What if' questions Scenario 2



Recognising and Responding to Acute Deterioration

- What if the RN fails to communicate findings using ISBAR?
- What if the RN takes no action to escalate?
- What if the nursing student escalates care? Is that appropriate?
- What if the RN documents findings but does not take action correctly according to the trigger system?
- What if the RN instructs the nursing student that it is not important to add up the Q-ADDS?
- What if you are really worried about the patient's clinical appearance, but the Q-ADDS score is within normal ranges?



Medication Safety

- What if the patient does not have the correct ID but the Registered Nurse says proceed?
- What if the patient refuses medication but the Registered Nurse says you must force the patient to take it or hide it in their meal?
- What if the order is not clear but the Registered Nurse says its fine?
- What if the Registered Nurse insists that the nursing student administers medication without supervision?
- What if the Registered Nurse asks the student to sign the chart before administering the medications?
- What if the Registered Nurse asks the nursing student to administer medication by a route that that they have not been taught about?
- What if the Registered Nurse advises the student that they do not have time to look up the medication at the time of administering but the student can do later in the shift?
- What if the patient verbalises that they have an allergy to the prescribed medication?

Knowledge Acquisition Test - Scenario 2

Please circle only one answer from the numbered selection after each question

1. Undergraduate nursing students can administer medication to a patient

- a) Only if the RN has prepared the medication for the student
- b) Only when the RN is near the student
- c) Only if the RN has time to be close by, indirectly supervising
- d) Only when the RN has checked the medication and provides direct supervision

- 1. a b c d
- 2. b c d
- 3. c d
- 4. d**

2. The six rights of medication administration include

- a) The right patient
- b) The right time
- c) The right route
- d) The right drug
- e) The right dose
- f) The right documentation

- 1. a b c d
- 2. all the above**
- 3. a b
- 4. a

3. The scope of practice of the student is influenced by

- e) The student's past experience prior to nursing
- f) The age of the student
- g) The student's other qualifications
- h) What the student has been taught in their nursing program

- 5. a b c d
- 6. a b c
- 7. c d
- 8. d**

4. The administration of narcotic analgesia to a patient by a student requires the following
- a) The presence of one RN to check with the student
 - b) The presence of two appropriately qualified persons to check from preparation to administration
 - c) The signatures of the persons checking the medication before administration
 - d) The indirect supervision of two RNs at the preparation point only

- 1. a b c d
- 2. b**
- 3. d
- 4. b c

5. It is acceptable to administer a medication left at the patient's bedside so long as

- a) The person who prepared it is still on shift
- b) The patient knows it is for them
- c) You witnessed the nurse leave it there
- d) You can identify the medication clearly

- 1. none of the above**
- 2. c d
- 3. b c d
- 4. a b c d

6. Which of the following statements apply to respiratory rate assessment?

- a) Respiratory rates are the least important vital sign
- b) An experienced nurse need only assess the rate for 15 seconds and multiply by four
- c) Abnormal respiratory rates are often the first indication of clinical deterioration
- d) Pain intensity has no impact on respiratory rates

- 1. a
- 2. b
- 3. c**
- 4. d

7. When escalating concern, the process to follow includes using ISBAR in the following manner

- a) Introduction, Safety issues, Background, Assessment, Recommendations
- b) Introduction, Special circumstances, Background, Allergies, Recommendations
- c) Introduction, Situation, Background, Allergies, Recommendations
- d) Introduction, Situation, Background, Assessment, Recommendations

- 1. a
- 2. b
- 3. c
- 4. **d**

8. The Registered Nurse can escalate concern about a deteriorating patient under the following circumstances

- a) The patient tells them that something isn't right
- b) They have not had time to assess the patient
- c) The senior Registered Nurse advises that the patient is overreacting
- d) The patient has not met escalation criteria in terms of vital signs alone

- 1. a b
- 2. a c d
- 3. b d
- 4. **a d**

9. If a nursing student undertakes a patient's vital signs and identifies signs of deterioration, they should

- a) Repeat the vital signs
- b) Record accurately on the Early Warning Tool
- c) Report immediately to the Registered Nurse
- d) Stay with the patient

- 1. **a b c d**
- 2. b c d
- 3. c d
- 4. c

10. Paracetamol is a medication that is considered an 'over the counter' medication, hence direct supervision for a student is not required when administering to a patient.

- 1. True
- 2. **False**

Appendix 3

Satisfaction with Simulation Experience Scale (SSES)

SATISFACTION WITH SIMULATION EXPERIENCE SCALE (SSES)

(Adapted for TTPSS)

Below you will find a list of statements. Read each statement and then select the response that best indicates your level of agreement.

- Please answer every item, even if one seems similar to another one
- Answer each item quickly, without spending too much time on any item

Briefing						
1	The learning outcomes for TTPS were clear	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
2	Readings and pre-simulation activities were provided	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
3	The Facilitator explained how TTPS was organised and managed	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
4	I understood my role	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
Patient Safety						
5	The simulation developed my knowledge and skills specific to patient safety	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
6	The simulation developed my clinical decision-making ability in relation to patient safety	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
7	The simulation enabled me to demonstrate my knowledge and clinical skills specific to patient safety	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
8	The simulation helped me to recognise critical aspects of patient safe care	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
9	The simulation provided an opportunity for me to engage in critical thinking	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
10	This was a valuable learning experience	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
11	The simulation felt real	Strongly disagree	Disagree	Unsure	Agree	Strongly agree

Clinical Practice						
12	The simulation tested my clinical ability	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
13	The simulation helped me to apply what I have learned previously	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
14	The simulation helped me to recognise my strengths and weaknesses	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
15	The simulation has developed my confidence	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
16	As a result of the simulation I feel more prepared for clinical practice	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
17	The Cue Cards were useful to facilitate learning	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
Debrief						
18	Constructive criticism was provided during Intermission and Debriefing	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
19	The Facilitator summarised important issues during Intermission and Debrief	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
20	I had the opportunity to reflect on and discuss my role during the debriefing	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
21	We were provided with opportunities to ask questions	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
22	I received feedback that helped me to develop my understanding of patient safety	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
23	Reflecting on and discussing the simulation enhanced understanding of patient safety	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
24	The Facilitator's questions helped me to learn	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
25	The Antagonist Cards were an effective learning strategy	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
26	The Facilitator made me feel comfortable and at ease during the debriefing	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
27	I was encouraged to participate in the debrief	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
28	The 'What if' questions were an effective learning strategy	Strongly disagree	Disagree	Unsure	Agree	Strongly agree

Do you have any comments about the Tag Team Patient Safety Simulation experience?

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Appendix 4

Preparatory readings for students

Student Preparatory Handout

Simulation One

Medication Safety – Scenario 1

Preparing undergraduate nurses for the workforce in the context of patient safety through innovative simulation.

This simulation will be conducted using an approach called Tag Team Patient Safety Simulation. This is a unique approach designed to facilitate engagement of all learners in the simulation and the development of technical and non-technical skills that graduates require to be work-ready upon graduation.

Simulation One – Medication Safety

Scenario 1 Prologue

This scenario involves a nursing student caring for a post-operative orthopaedic patient who is experiencing pain. The nursing student will be working with a registered nurse preceptor. The scenario provides the opportunity for learners to engage with the following:

- Clinical handover (given by the Director, guided by ISBAR)
- Pain assessment
- Neurovascular assessment
- Safe administration of medication
- Evaluating effectiveness of analgesic medications
- Recognition of adverse drug reactions
- Response to medication errors

The setting is a surgical ward. The information regarding the patient will be provided at the clinical handover given by the Director at the beginning of the scenario. This scenario will involve multiple learners fulfilling the following roles, tagging in and out, resulting in *many voices playing a continual role*.

- The Director (played by the educator or facilitator)
- A nursing student
- Two registered nurses (possible Antagonists), one being the student's preceptor, the other to be 'on hand' as required.
- One patient (protagonist)
- One family member
- Audience members



Simulation Session

Date

Time.....

Address.....

Simulation Rules

- Demonstrate professional behaviours (including the use of mobile devices)
- Imagine that the simulation is real
- Participate enthusiastically
- Provide meaningful, honest and constructive feedback to your peers
- Learn from what went well during the simulation and from the mistakes
- Maintain respect and confidentiality during and after the simulation (this includes taking and sharing photos and videos)
- Use a loud clear voice and think out loud when practical



Learning Outcomes

At the completion of Scenario 1, learners will be able to:

- Administer and monitor the therapeutic use of medications; and respond appropriately to medication errors and adverse drug reactions
- Collaborate and communicate effectively with members of the healthcare team
- Reduce the risk of patients acquiring healthcare-associated infections

This scenario focuses on the NSQHS Standard:



Medication safety

Preparatory Reading:

Medication errors continue to be a major cause of patient harm in health care facilities within Australia (Roughhead et al 2013). Nurses play a contributing role to patient harm as they are the last person in the chain of medication administration. Safe medication administration with nurses adhering to the six rights of medication administration is fundamental to safe patient outcomes. Undergraduate nursing students are delegated the responsibility to administer medication when on clinical placements under the direct supervision of a registered nurse. Research suggests that students are not always directly supervised (Reid-Searl, Moxham, Walker & Happell, 2010) and are tasked with administering medication when a registered nurse may be nearby or even absent (Reid-Searl et al 2010). As a result medication errors are made by students causing patient harm (Reid-Searl, Moxham & Happell 2010).

A multitude of factors contribute to why students are not always supervised despite legislation affirming that it is the responsibility of the registered nurse. A major factor is busyness and time on behalf of the registered nurse (Reid-Searl and Happell 2011). Without doubt patient safety needs to be protected and research (Reid-Searl et al 2010) suggest that students need to be taught the importance of speaking up when placed in situations where risk is apparent. This includes not being supervised directly from the point of preparation to administration.

References

- Reid-Searl, K & Happell, B. 2012, 'Supervising nursing students administering medication: a perspective from registered nurses', *Journal of Clinical Nursing*, vol. 21, no. 13-14, pp. 1998-2005, <http://dx.doi.org/10.1111/jcn.2012.21.issue-13-14>
- Reid-Searl, K., & Happell, B. 2011. Factors influencing the supervision of nursing students administering medication: the registered nurse perspective. *Collegian*, 18(4), 139-146.
- Reid-Searl, K., Moxham, L, Happell, B. 2010, Enhancing patient safety: The importance of direct supervision for avoiding medication errors and near misses by undergraduate nursing students, *International Journal of Nursing Practice*, vol.16, no 3, pp.225-232.
- Reid-Searl, K., Moxham, L., Walker, S., Happell, B. 2010, Whatever it takes: Nursing students experiences of administering medication in the clinical setting, *Qualitative Health Research*, vol.20, no. 7, pp. 952-965.
- Roughhead, E. & Semple, S. (2009). Medication safety in acute care in Australia: where are we now? *Part 1: A review of the extent and causes of medication problems 2002-2008*. Australia and New Zealand Health Policy, 6, 18.
- Roughhead E, Semple S, Rosenfeld E, *Literature Review: Medication Safety in Australia (2013)*. Australian Commission on Safety and Quality in Health Care, Sydney. <https://www.safetyandquality.gov.au/wp-content/uploads/2013/08/Literature-Review-Medication-Safety-in-Australia-2013.pdf>