



Solve Your Enterprise Learning Challenges

10TH INNOVPLUS CHALLENGE



CHALLENGE STATEMENT #02

1. Challenge Owner Index and Pseudonym

#02 – AB Hospital

2. Challenge Statement

We are a public hospital seeking a learning solution to translate the theory-based knowledge of pressure injuries into practical skills for nurses through lifelike experience in a simulated environment. The solution would also serve as a platform where new best practices related to pressure injuries are accessible by nurses at their own time and place. We envisage that the solution would enhance the users' learning experiences with better retention of pressure injury related knowledge that could be translated to better quality of care rendered to patients, leading to improvement of patient outcomes.

3. About the Challenge Owner Organisation

We are a public teaching hospital with over 1000 beds serving a community of more than 1 million people in eastern Singapore. AB Hospital's vision is to focus on promoting holistic, patient-centred care for the people of eastern Singapore. It achieves this through integrated and innovative facilities that enable the delivery of seamless, high-quality healthcare services.

4. Define the Challenge

Pressure injuries (PI) prevention, assessment and management are critical components of nursing care. The effectiveness of translating knowledge about pressure injuries into practice can be linked to improve patient outcome and the delivery of higher standard of care.

As such, the Nursing department in AB Hospital has made 'Prevent and Care of Pressure Injury' as one of the core competencies for 1500 nurses working in acute care units, whereby nurses must be certified as competent before they are allowed to practise. Annually, nursing supervisors are required to assess whether nurses have the correct knowledge and information about pressure injury by assessing them based on a standardised competency checklist. This is usually done through a face-to-face assessment, which lasts about 15 to 30 minutes per nurse.

Separately, workshops or journal sharing sessions are conducted bi-monthly by the members of the PI Prevention Taskforce, to reinforce existing knowledge or introduce new best practices. Picture of PIs and PowerPoint presentations are used during these workshops to augment learning. These workshops are attended by Skin Care Champions (SCCs) who are representatives from different units. After attending a workshop, SCCs are required to share what they have learnt during the



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workshop with their colleagues in the same unit, through 2 to 3 in-service sessions. Each session would be attended by about 10 to 15 nurses.

On a yearly basis, about 250 new nurses who join the hospital are required to attend a full day 8-hour workshop to reinforce their knowledge about prevention and management of pressure injuries. In this workshop, new nurses are tested for their theoretical knowledge on the assessment of patient's risk to pressure injury and their ability to choose the correct dressing product for different types of pressure injuries. To facilitate the assessment, wound care models (parts of a mannequin) are borrowed from a vendor and the nurses are required to show the correct steps for the application of dressing products to the wound.

The annual competency exercise is an initiative to reaffirm nurses' competency in the prevention and management of pressure injury. This serves as an opportunity to address knowledge gaps that may be presented by the nurses. However, nursing supervisors often face time pressure and rush to complete the assessment as each specialty/department have different numbers of skills core and non-core competencies to meet. Depending on the specialty of each department, each department may have a minimum of 3 to a maximum of 6 core and non-core competencies to conduct. It would be mandatory for Nursing Supervisors to complete the core and non-core competencies for nurses to be certified as competent before they can practise. During the assessments, Nursing supervisors would address knowledge gaps through quick verbal sharing as they try to complete the core and non-core competencies for all the nurses in two to three months before the year ends. Unfortunately, the delivery of quick verbal sharing differs between Nursing supervisors and the level of nurses' knowledge may not be truly measured according to the expected level of competency.

For the workshops and journal sharing sessions held bimonthly by the PI Prevention Taskforce, the taskforce team faces challenges to disseminate information to over 2000 nurses directly. Thus, each acute care unit sends representatives known as Skin Care Champions (SCCs) to attend the workshops or journal sharing sessions. SCCs are expected to disseminate what they have learnt with their colleagues in their own unit via in-service sessions. This shortened the time needed to reach out to all nurses directly but it would still require weeks before the information is shared with all nurses. This challenge arises as nurses are working on shifts and SCCs need to conduct multiple in-service sessions to ensure all nurses in the unit have attended the in-service session. Moreover, the completeness and the accuracy of the information that has been disseminated depend solely on the SCCs. This contributes to variability of information when SCCs conducts the delivery in their own style at their own unit. Root cause analysis session would be conducted for a deteriorated hospital acquired pressure injury (HAPI) with the intent to review the care that was provided to the patient during the stay. It was noted during root cause analysis session that nurses were either not aware of the information that was already shared at previous workshops or had difficulty translating knowledge into practice when they handled actual cases. This leads to the next challenging area, which is the assessment of pressure injury. Currently, pictures of PI were used as examples during the teaching of nurses about the assessment of pressure injury. However, using pictures are often considered as insufficient because the assessment for pressure injury or a change in skin tissue colour requires the staff to consider the colour and depth of the injury, and identifying any exposed



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bone structures. This challenge impedes the translation of knowledge to practical application on the ground, for new and existing nurses.

5. Requirements

The requirements of the solution should meet the following:

- Portable and accessible by users at their own time and place
- Modular allowing add-ons of other clinical topics, not limiting to pressure injury.
- Easy management for content change
- Ability to track users' performance
- Customisation and management of user accounts

6. Targeted Learners / Users

About 2000 nurses working in Operating Theatre and acute care units like Emergency Department and inpatient wards.

7. Measures of Success

- Value for money — reduction in cost to conduct face-to-face trainings
- Fulfil the requirements of the solution
- Comprehensive solution that includes: theory, practical virtual simulation, assessment and feedback

8. Deliverables

The solution should be accessible by users anytime and anywhere. It should serve as a repository of pressure injury related information and a learning tool for users with different level of experience. During the learning journey, the solution should be able to personalise the learning content according to the learner's progress. Nursing supervisors should be able to track nurses' progress using the solution.

The solution should be able to disseminate updates and reinforce pressure injury knowledge when necessary, therefore reducing the frequency of workshops and the need to arrange for different presenters thereby improving productivity.

The solution should be able to improve users' learning experience by reinforcing the process of accurate assessment with close to real life examples, and the ability to guide users through the process of decision making for the management of pressure injuries real-time. Additionally, the users could be guided when there is a need to escalate pressure injuries to be reviewed by relevant expertise.



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9. Vision

Nurses are able to accurately assess pressure injuries and implement appropriate treatment for the identified pressure injuries which could be reflected in the reduction of reported HAPI below the hospital's target of less than 0.15 per 1000 patient days.

80% of nurses pass the competency assessment at their first try.

100% of nurses have access to updated information about pressure injury.