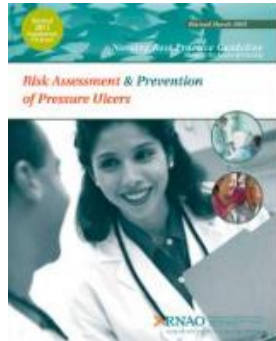


RNAO Best Practices: Evidence Booster

Implementation impact: Improved clinical outcomes related to pressure ulcers

Risk Assessment and Prevention of Pressure Ulcers (2011)



RNAO's best practice guideline (BPG) *Risk Assessment and Prevention of Pressure Ulcers* (2011) aims to assist nurses in identifying persons at risk of developing pressure ulcers. This BPG provides guidance to nurses in defining early interventions for pressure ulcer prevention, and managing Stage 1 pressure ulcers.



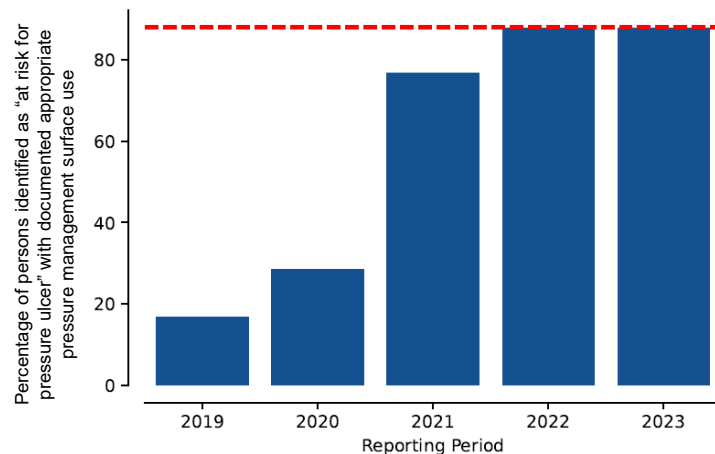
Founded in 1942, the Hospital de Niños Dr. Luis Calvo Mackenna (HLCM) is a renowned public pediatric teaching hospital located in Santiago, Chile. HLCM offers a wide array of outpatient specialty consultation services, emergency care, and medical surgical care. HLCM serves individuals with complex needs from the Eastern Network of Chile and beyond. HLCM is a national reference center for bone marrow transplants, liver transplants, retinoblastoma, and Osteosarcoma treatments. HLCM is recognized as a Best Practice Spotlight Organization® (BPSO®) and is part of the innovative partnership between the Registered Nurses' Association of Ontario (RNAO) and the Government of Chile's Ministry of Health to bring evidence-based nursing practice to hospitals. This approach enhances the delivery of care and improves the health and quality of life of persons receiving care.

Aim: To examine the clinical outcomes associated with the implementation of RNAO's *Risk Assessment and Prevention of Pressure Ulcers* BPG in the Hematopoietic Stem Cell Transplant unit at Hospital de Niños Dr. Luis Calvo Mackenna in Santiago, Chile.

Measures: The Nursing Quality Indicators for Reporting and Evaluation® (NQuIRE®) data system was used to determine the (a) percentage of persons identified as "at risk for pressure ulcer" who have a documented use of an appropriate pressure management surface, and the (b) percentage of persons who developed one or more new stage II to IV pressure ulcers.

Clinical improvement: There was an increase in the percentage of persons identified as "at risk for pressure ulcer" who have a documented use of an appropriate pressure management surface (Figure 1), and a decrease in the percentage of persons who developed one or more new stage II to IV pressure ulcers (Figure 2).

Figure 1: Percentage of persons identified as "at risk for pressure ulcer" who have a documented use of an appropriate pressure management surface in the Hematopoietic Stem Cell Transplant unit at HLCM



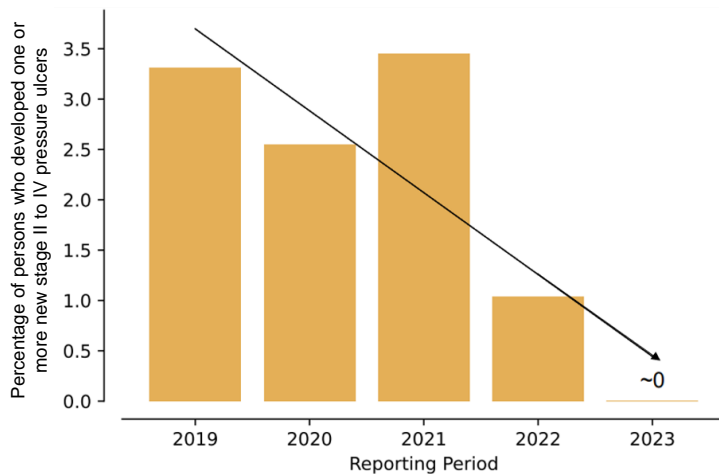
Impact: From 2019 to 2023, there was a 71.3 per cent (from 16.6 to 87.9) increase in the percentage of persons identified as "at risk for pressure ulcer" who have a documented use of an appropriate pressure management surface.

Practice changes

Hospital de Niños Dr. Luis Calvo Mackenna (HLCM) implemented the BPG in 2018 to improve risk assessment and prevention of pressure ulcers in the pediatric and neonatal population. HLCM updated its pressure ulcer protocol by standardizing hospital-wide practices to align with the BPG. Persons identified as being at medium to high-risk of developing pressure ulcers were repositioned every two hours and were provided with a pressure management surface. HLCM used the classification system of the National Pressure Ulcer Advisory Panel to identify, describe and document pressure ulcers. Pressure ulcer risk assessment is mandatory upon admission and reassessments are conducted daily and as needed. HLCM has effectively sustained these practice changes while seeking opportunities to enhance patient safety and care.

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Figure 2: Percentage of persons who developed one or more new stage II to IV pressure ulcers in the Hematopoietic Stem Cell Transplant unit at HLCM



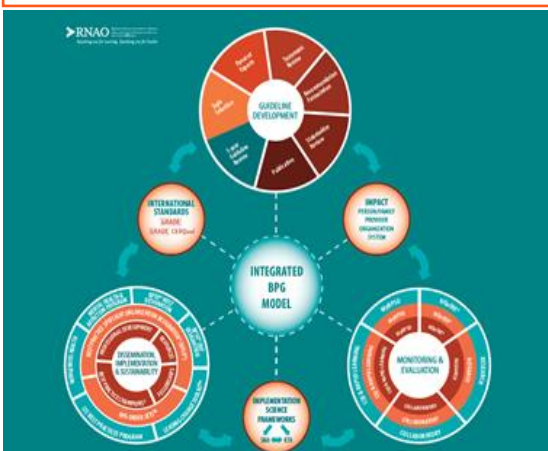
Impact: From 2019 to 2023, there was a 3.3 per cent (from 3.3 to 0) decrease in the percentage of persons who developed one or more new stage II to IV pressure ulcers during admission.

Practice changes

Key practice changes include:

- **Staff education:** Comprehensive annual training on pressure ulcer prevention and management is offered in both in-person and virtual formats, as an integral component of the Nursing Team Orientation Program, and as needed for all staff. Staff also receive training on the proper application of pressure ulcer supplies prior to use.
- **Equipment and supplies:** Created a cost centre, which focuses on the monthly budget allocation to acquire and distribute supplies to all hospital units, such as: viscoelastic mattresses, dry flotation mattresses and toppers, gel positioners, topical hyper-oxygenated fatty acids, and protective skin barriers such as skin protector spray, and hydrocolloid powders and foam.
- **Audits:** Conducted monthly audits by the Quality Improvement team and the Pressure Ulcer Champions team to monitor pressure ulcers and address any issues identified.
- **Charting system:** Assessments are documented both on paper and electronically.
- **Interprofessional collaboration:** Timely referrals of persons at high risk of developing pressure ulcers to an occupational therapist, physiotherapist, dietician, and wound care team, as necessary.

Conclusion: Hospital de Niños Dr. Luis Calvo Mackenna demonstrated that the implementation of RNAO's BPG, *Risk Assessment and Prevention of Pressure Ulcers* (2011), led to an increase in the percentage of persons identified as "at risk for pressure ulcer" who have a documented use of an appropriate pressure management surface and a decrease in the percentage of persons who developed one or more new stage II to IV pressure ulcers in the Hematopoietic Stem Cell Transplant unit.



RNAO launched the BPG Program in 1999¹ with funding from the Government of Ontario, Canada. The evidence-based BPGs developed to date are transforming nursing care and interprofessional work environments in all sectors in health systems worldwide. BPSOs are health service and academic organizations that implement multiple BPGs through a formal agreement and systematic process, as well as evaluate their impact on health and organizational outcomes².

NQUIRE^{2,3}, a unique nursing data system housed in the International Affairs and Best Practice Guideline Centre, allows BPSOs worldwide the ability to measure the impact of BPG implementation. The NQUIRE data system collects, compares and reports data on human resource structure, guideline-based nursing-sensitive process, and outcome indicators. Contact us by email at NQUIRE@RNAO.ca for more details. To learn more about RNAO's IABPG Centre, please visit RNAO.ca/bpg. This work is funded by the Government of Ontario. All work produced by the RNAO is editorially independent from its funding source.

References

- 1 Grinspun, D. (2018). Transforming nursing through knowledge: The conceptual and programmatic underpinnings of RNAO's BPG program. In D. Grinspun & I. Bajnok (eds.), *Transforming nursing through knowledge: Best practices for guideline development, implementation science and evaluation* (pp. 3-25). Sigma Theta Tau International.
- 2 Naik, S., Voong S., Bamford, M., Smith, K., Joyce, A., & Grinspun D. (2020). Assessment of the Nursing Quality Indicators for Reporting and Evaluation (NQUIRE) database using a data quality index. *Journal of the American Medical Informatics Association*, 27(5), pp. 776-782.
- 3 VanDeVelde-Coke, S., Doran, D., Grinspun, D., Hayes, L., Sutherland Boal, A., Velji, K., White, P., Bajnok, I., & Hannah, K. (2012). Measuring outcomes of nursing care, improving the health of Canadians: NNQR (C), C-HOBIC and NQUIRE. *Nursing Leadership*, 25(2): 26-37.