

Programs in Healthcare Organizations in Canada and Australia

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Background

Pressure ulcers include any localized injury to the skin and/or underlying tissue, usually over a bony prominence, as result of pressure, or pressure in combination with shear and/or friction¹. Pressure ulcers present a serious clinical challenge to health care organizations around the world.

Pressure ulcers can have profound and lasting effects on the health and quality of life of patients, causing pain, discomfort, sepsis, reduced function, loss of employment, infections, amputations and even death. The care and treatment of pressure ulcer patients, which can be highly labor intensive, places a significant burden on clinicians and health care institutions. Despite the significance of pressure ulcers as a health issue, they remain a low-profile concern for many health care clinicians and institutions. Key indicators such as pressure ulcer prevalence, healing times and infection rates are not always measured and monitored. The size and nature of the issue is often poorly understood or unrecognized by senior clinical and administrative staff. In recent years, however, a growing body of research has been contributing to a better appreciation of the high cost of pressure ulcers – to both patients and health care organizations². Further, and most importantly, the testing, development and implementation of advanced wound management programs has been demonstrating how pressure ulcers can be healed quickly and efficiently, on a consistent and sustainable.

Purpose

This analysis looks specifically at programs designed to reduce the prevalence of pressure ulcers in two large, integrated health care organizations: North York General Hospital in Toronto, Ontario, Canada, and Ballarat Health Services in Ballarat, Victoria, Australia.

North York General Hospital is a multi-site teaching hospital serving a large urban community in and around the Greater Toronto Area (GTA). Facilities include two hospital sites and residential aged care services. Resources include more than 600 inpatient beds and close to 6,000 full and part-time staff. Care is provided for about 29,000 inpatients each year.

Ballarat Health Services (BHS) is an integrated health care organization that includes a major regional hospital, as well as residential aged care services. There are currently about 221 acute care beds, 434 aged residential care beds, 70 sub-acute beds and 67 mental health beds There are 3000 full and part-time staff at BHS. The annual inpatient volume is about 35,000.

The purpose of this analysis is to compare findings from similar programs implemented in health care organizations in two different national health systems. The analysis includes:

- A review of the *situation* prior to program implementation in both jurisdictions;
- A description of the *methodology* employed in the pressure ulcer reduction programs;
- A summary of *results*, including changes in clinical practices, impact on pressure ulcer prevalence and other indicators, and implications for costs and resource utilization;
- *Conclusions* and *recommendations*.

Review of the Situation Prior to Implementation

At both NYGH and BHS, the assessment of pressure ulcer care practices prior to program implementation revealed that no clear, evidence-based protocols were being applied consistently across the organization. Practices in both cases were characterized by:

An absence of thorough, consistent assessment procedures, applied organization-wide, for patients with pressures or patients who may be at risk of acquiring pressure ulcers;

A lack of data on key indicators such as pressure ulcer prevalence, duration of wounds, severity/staging of wounds, infection rates and healing times;

Inconsistencies in clinical practices relating to wound care. No clear clinical pathways or protocols were being applied by clinicians across the organization.

An absence of formularies for the selection, purchasing and use of wound care products. There was evidence of waste, duplication and inappropriate/inefficient use of products.

A lack of data (i.e. clinical evidence) on the effectiveness of many of the pressure ulcer care treatments being applied;

Significant gaps and inconsistencies in nursing skills and knowledge regarding pressure ulcer assessment, prevention and management;

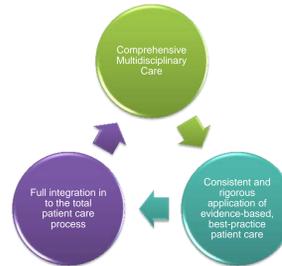
No clear leadership or responsibility for pressure ulcer prevention and management at the senior clinical or executive level;

A general lack of broad organizational awareness and understanding of pressure ulcers as a clinical priority;

No tools/programs in place to inform patients and families about pressure ulcer risks.

Methodology

The new pressure ulcer reduction programs implemented at NYGH and BHS employ a methodology based on these three principles



Pressure Ulcer Reduction Program Components



The pressure ulcer programs rely on a common methodology that focuses primarily on the role of nurses — including nurse leadership, the empowerment of nurses, and the development of nursing skills and capacities – within the context of a multi-disciplinary clinical care strategy.

The primary focus of this methodology is on nursing fundamentals, including established cornerstones of patient care such as head-to-toe assessments, proper nutrition and regular documentation. The goal is to make such measures a permanent part of the nursing culture throughout the organization. This approach is often considered “low-tech” relative to many contemporary clinical interventions. Technological innovations in wound care play a role – examples include advanced pressure-relief surfaces and advanced wound dressings based on moist wound healing principles. However, the emphasis is on basic evidence-based clinical practice, employing new products and technologies only in the context of the comprehensive, nursing-centered patient care program.

Results

Implementation of pressure ulcer reduction programs in the two organizations proved to be highly effective, showing measurable results within one year. Table 1 provides a comparative summary of key indicators before and after program implementation. The results are highlighted by significant reductions in overall pressure ulcer prevalence rates, reflecting both faster healing rates and improved pressure ulcer prevention.

The data also confirm major changes in wound management practices. One of the most important changes was the shift away from dry gauze dressings, which are typically changed at least once daily, to advanced wound dressings, which are based on moist wound healing principles and require far less frequent changes. Significant reductions in daily dressing changes and corresponding increases in advanced dressing utilization were achieved in both organizations (see Table 1).

	North York General Hospital		Ballarat Health Services	
Table 1.	Pre-Implementation (2007)	Post-Implementation (2012)	Pre-Implementation (2009)	Post-Implementation (2012)
Total number of patients surveyed	309	301	630	635
Pressure Ulcer Prevalence	21%	2.9%	11%	3.7%
Hospital-acquired Pressure Ulcers	89%	12% (1 pressure ulcer)	88%	25%
Total number of Pressure Ulcers	97	8	122	24
Daily Dressings Changes (% of patients receiving daily dressing changes)	21%	0%	26%	1%
Infection Rate (% of pressure ulcer patients with infected wound)	10%	0%	9%	0%

Several conclusions can be drawn from the comparative analysis of pressure ulcer prevalence reduction programs and NYGH and BHS:

- The pressure ulcer prevalence reduction methodology profiled in this analysis is transferable across similar health care settings in two different national systems.
- A focus on nursing practice is an appropriate and effective starting point for pressure ulcer prevention and management.
- A focus on “the basics” of patient care and nursing practice can yield significant clinical benefits.
- Implementation of a successful and sustainable pressure ulcer prevalence reduction program requires organizational change.

Recommendations

A number of practical recommendations for health care organizations evaluating pressure ulcer reduction options can be drawn from the comparative analysis of programs at NYGH and BHS provides useful. These include:

1. Understand the scope and nature of the pressure ulcer problem. Implement data collection and measurement systems. Conduct a prevalence survey and an assessment of clinical practices to benchmark key indicators prior to program launch.
2. Identify clear leadership at the executive level. Pressure ulcer prevalence reduction must be established and maintained as an organizational priority.
3. Select clinical and administrative leaders with experience in program implementation and organizational change. These leaders will be required to identify and navigate barriers to change.
4. Build a multi-disciplinary team that includes specialists such as physiotherapists, nutritionists, chiropractors, etc. Involve these disciplines in all stages of planning and implementation .
5. Promote the central role of nurses in pressure ulcer prevention and management. Appeal to the fundamental desire of nurses to provide for the health, comfort and well-being of patients.
6. Help build broad organizational support by linking pressure ulcer prevalence to resource management issues such as length-of-stay in acute care and alternative level of care (ALC) beds. Pressure ulcers are an important cause of preventable acute care stays.
7. Recognize and build upon the role of pressure ulcer reduction as an important part of the organization’s overall patient safety agenda. The program can serve to reduce pressure ulcers, which are a major patient safety risk, while also establishing basic clinical and organizational practices that contribute to a patient safety culture.
8. Report regularly on clinical and practice indicators such as pressure ulcer prevalence, infection rates, healing times and use of best-practices. Evaluate progress. Identify gaps and opportunities for continuous improvement.

References and Disclosure

¹Source: National Pressure Ulcer Advisory Panel (NPUAP), United States.

²Hurd, T., Zuliani, N. and Posnett, J. (2008). Evaluation of the impact of restructuring wound management practices in a community care provider in Niagara, Canada. *International Wound Journal*, 5: 296-304, doi. 10.1111/j.1742-481x.2008.00484.x

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