

Pressure Ulcer Awareness Program Pilot

Reports on a Successful Pilot Program for Reducing the Development of Pressure Ulcers in Canadian Health-care Facilities

From March through September 2006, the Canadian Association of Wound Care (CAWC) ran a pilot program in five facilities to test materials and outcomes for a Pressure Ulcer Awareness Program (PUAP), designed to improve awareness of pressure ulcers and decrease their prevalence throughout Canada.

The reports that appear on the following pages have been written

by the pilot participants: the Champions from each pilot site, CAWC committee chairs who oversaw the program's development and the CAWC Team Leaders who worked with the Champions to support successful implementation and follow-up. Taken together they provide readers with an overview of the pilot; its challenges, successes and benefits; and offer clinicians a glimpse of how the program might work in their own facilities. ☺



PUAP Champions and Team Leaders

Left to right: Sue Rosenthal, Canadian Association of Wound Care; Carol Keefer, Extencare Falconbridge, Sudbury, ON; Barbara Shanks, Southwood Care Centre, Calgary, AB; Lyne Camiré, Fruan Tabamo, and Silvana Mauro, Maimonides Geriatric Centre, Montreal, QC; Nancy Parslow, The Scarborough Hospital General Campus, Toronto, ON; Jan-Marie Morgan, St. Joseph's Healthcare, Hamilton, ON; and Heather L. Orsted, Canadian Association of Wound Care.

Overview of Pilot Project



BY Heather L. Orsted



AND Sue Rosenthal

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Sue Rosenthal, BA, MA, specializes in health and wellness communications and has been associated with the CAWC since 2000.

Purpose

In 2003 the Canadian Association of Wound Care (CAWC) funded a study to determine the extent of pressure ulcers in Canada.¹ The results indicated a prevalence of 25 per cent in acute care, 30 per cent in non-acute care, 22 per cent in mixed health-care settings, and 15 per cent in community care. The mean prevalence overall was 26 per cent.

Recognizing this as a huge health-related problem, in 2006 the CAWC funded and created the Pressure Ulcer Awareness Program (PUAP), a continuous quality improvement program to

- increase awareness about pressure-ulcer prevention
- improve current clinical practice
- improve policies to support changes in clinical practice
- reduce the prevalence of pressure ulcers

The ultimate goal of the PUAP is to create a culture

shift from *treating* pressure ulcers to *preventing* pressure ulcers.

Site Selection

Five sites participated in the pilot program. The pilot sites were varied, with two acute-care centres and three long-term-care centres participating. Facilities were chosen through a request-for-proposal (RFP) process to reflect the reality of the challenges that face many sites across the country. Selected sites demonstrated a willingness to initiate and sustain a change in practice throughout the entire facility. This cultural change would thus lead to a reduction in the prevalence and incidence of pressure ulcers.

The Champion

The key to the program's success was the effort and energy of the Champion in each pilot site. The

A Team Approach

Other types of interventions or even whole programs have not been particularly effective at producing the positive changes we've seen through the pilot, including the reduction of pressure-ulcer prevalence. The literature has told us that successful implementation of best practice is related to the evidence, context and facilitation.²

This program took into account those same key factors that we know influence the movement of evidence into practice:

- The evidence was scientifically robust, utilizing the RNAO Best Practice Guidelines for Risk Assessment and the Prevention of Pressure Ulcers (2005).³
- The context (facilities) was receptive to change, with management "signing on the dotted line" in a commitment to support change within their facility.
- The change process was appropriately facilitated through the CAWC team leader, site champion and an approach to education that involved "layering" educational programs and materials as well as the addition of new, clinically focused activities.

The prevention of pressure ulcers requires that everyone caring for patients, including the patients themselves (where possible), be aware of the risk factors for the development of pressure ulcers and the actions required to prevent them. Obstacles to applying the knowledge and awareness of pressure-ulcer prevention need to be identified and removed where practical. This was only possible through a fully realized team approach supported by facility administration.

TABLE 1

PUAP Timeline

| Timeline | Phase | Activity |
|--------------------------------|-------|---|
| April to May 2006 | 1 | Introduction and planning, including booking of educational resources and creation of educational programs |
| May to July 2006 | 2a | Implementation of three educational sessions that included large, small and case-based activities |
| July to September 2006 | 2b | Implementation of high-risk rounds and new admission procedures |
| September to November 2006 | 3 | Evaluation of pilot. Though evaluation had begun in April, it was now time to gather all the evaluation tools and evaluate the program. |
| November 2006 to February 2007 | 4 | Revision of program based on pilot results and input from site Champions |
| March 2007 | 5 | National delivery of Pressure Ulcer Awareness Program |

Champion was responsible for making sure the program was implemented appropriately. He/she also augmented the materials as necessary to ensure a regional approach and provided feedback to the CAWC Pressure Ulcer Awareness team about the materials.

Champions were the coaches of the pressure-ulcer-prevention teams (which is everyone, including patients) in their respective facilities. As coaches, they needed to be enthusiastic, positive, knowledgeable and accessible.

The Program

The aim of the pilot was to promote positive practice change through a multi-layered program (Figure 1) that

1. advocated for administrative support for a positive change in culture within the facility
2. provided educational tools and materials necessary to promote the ideals of best practice
3. empowered patients and their families to understand how their involvement in patient care can help reduce the development of pressure ulcers
4. will provide impetus for government and health officials to create policies that will support activities and processes that will reduce pressure ulcers nationwide

The pilot was designed to test materials, processes and outcomes related to the program. Immediately following the completion of the pilot phase, work

was begun to compile the evaluation data and debrief the pilot participants. Based on feedback, revisions to the pilot have been undertaken to refine and update all program components in preparation for delivery as a comprehensive pressure-ulcer-awareness and prevention program to Canadian health-care facilities/agencies. (Table 1).

FIGURE 1

Layering of Program

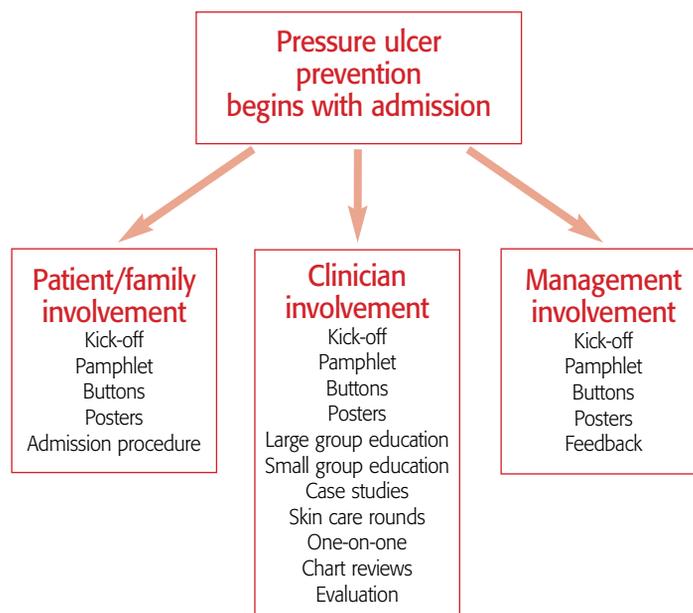


TABLE 2

Chart Review Outcomes

(percentage of adherence to plan of care)

| Month | May | Jun. | Jul. | Aug. | Sep. |
|------------------------|-------|-------|-------|-------|-------|
| Positive Chart Reviews | 30.8% | 36.9% | 47.7% | 48.7% | 66.6% |

Outcomes

The results of the feedback from the Champions as well as the evaluations of everything from materials to awareness to prevalence are impressive. Program outcomes reflected four areas of change: awareness, clinical practice, policy and prevalence.

Awareness

Goals. The primary goal of the pilot was to increase the awareness of risk on the part of patients and their families, clinicians and facility managers.

Outcomes. Evaluations of awareness levels in each category, before and after exposure to the program, demonstrated the following:

- Front-line clinicians had varying levels of awareness, depending on the topic. For example, one of the test questions read, "A high Braden is associated with increased risk." The answer to this question is false and, before the introduction of the program, only 28 per cent got it correct. Though all sites but one were using the Braden Scale for Predicting Pressure Sore Risk, the responses to this question indicate that few were aware of its impact on practice.
- Patients/families had the lowest initial level of knowledge of all the groups tested, as would be expected. Before the implementation of education, the average score for correct answers on the patient/family questionnaire was only 44 per cent. After education, however, the average correct score rose to 90 per cent, demonstrating a great need for bedside education. Anecdotal evidence from one of the pilot sites suggests that patients and their families were hungry for education and were eager to participate.
- Interestingly, facility administrators demonstrated very high levels of knowledge about pressure ulcers (96 per cent correct) before the program was imple-

mented. What's particularly discouraging about this result is that it indicates that managers know what needs to be done to prevent pressure ulcers, but don't necessarily provide the support necessary to see it done.

Of equal importance was the fact that after the program had been implemented, all sites reported an increased recognition and reporting of reddened or discoloured areas that led to early intervention for Stage I pressure ulcers.

Clinical Practice

Goals. There were three main goals for the clinical practice component of the program:

1. To introduce a new admission procedure involving education of clients and family, standardize usage of a risk assessment tool, and incorporate risk level into care planning.
2. To introduce high-risk rounds to identify factors and co-factors that affect high-risk patients, eliminate or modify risks using an interprofessional approach, and ensure high-risk patients are evaluated regularly for their risk of developing pressure ulcers
3. To introduce chart reviews to audit practice change, ensure a best practice approach, and support interprofessional communication.

Outcomes. Positive practice change was seen in a number of important areas:

- Through the use of chart reviews it became clear that a change was happening. Table 2 illustrates the improvement in adherence to the plan of care identified through the chart reviews. A score of 66.6 per cent, for example, indicates that two-thirds of the charts demonstrated adherence to the plan of care that had been developed based on identification of risk for developing pressure ulcers.
- Site champions saw an increased use of support surfaces and positioning aids. At least two facilities in the program illustrated the weakness of the common practice of allowing only one pillow per patient. Practice was modified to increase the number of pillows allowed to support improved positioning. There was also increased purchase and availability

continued on page 44

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1. MacKay D, Miller AL. Nutritional support for wound healing. Altern Med Rev. 2003; 8(4):359-377.



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What Makes this PUAP Unique?

The program contains the core components commonly seen in successful programs of this type. However, a number of features set this program apart from most others:

- The program is entirely generic and was designed to be portable, adaptable, flexible, transformable and acceptable in any health-care setting, large or small, regardless of facility policy.
- Facility administrators are required to indicate a firm commitment to the program. The pilot sites had written commitments from management prior to being accepted as a pilot site. Signing the form wasn't enough, however. Management commitment needed to be visible and ongoing. For example, each centre held a kick-off event with senior management in attendance, giving profile and presence to the program. However, in certain pilot facilities/agencies, we discovered a critical weakness when management wavered in their support. As a result, the CAWC support team contacted the managers to discuss the issue, which resulted in renewed commitment and positive change.
- The program provides participating Champions with ongoing hands-on support. Regular conference calls take place with the site Champions, the PUAP Team Leader and site-management personnel (when required). During these calls, the Champions share their successes and challenges, and trade suggestions for improvement.
- The Champions become part of a network. The network, which works to help Champions better implement and sustain the program, consists of regular conference calls, inter-Champion e-mails and phone calls. Revisions to the program will see a dedicated Champion discussion forum, Web area and hotline added to the network's support technology.
- The program honours adult educational principles by "layering" educational information and presenting it in different ways: Information is delivered through a range of methods, from brochures, Web site and publicly displayed posters to large-group, small-group and one-on-one education sessions—and more. For example, five education sessions were prepared and presented to clinicians using an interactive PowerPoint® format, hands-on sessions and clinician brochures. Several pilot facilities included patients and families as well as professional and unregulated staff in the sessions. The activities listed below are examples

of the sessions, which were designed to support a shift toward prevention of pressure ulcers:

- Session 1 – Introduction to Pressure Ulcers – regional perspective
- Session 2 – The Braden Scale – use and integration into practice
- Session 3a – Skin care and protection – hands-on skills lab
- Session 3b – Pressure management – hands-on skills lab
- Session 3c – Nutritional management – hands-on skills lab

In the facilities with the most successful sessions, management encouraged and facilitated staff participation.

- A new admission procedure using the tools in the program is an important part of the change in practice toward **preventing** pressure ulcers, not just treating them.



Admission of new patients in participating facilities includes patient/family/companion education relating to the prevention of pressure ulcers using patient brochures and discussion. Once patients have had an initial Braden Scale assessment, an action card is completed that identifies their risk and outlines an associated plan of preventative care (based on risk parameters). The cards are colour-coded to add visual cues: **Red** = High or Very High Risk; **Yellow** = Moderate Risk; **Green** = Low Risk. In the pilot sites, this new admission process was a good place for management to step in and offer support in relation to resource allocation and procedure change.

- The implementation of high-risk skin-care rounds is a new strategy for improving the quality of care for high-risk patients. The interprofessional rounds are carried out weekly to review patient care that targets **prevention** strategies. Preventative skin-care rounds should be considered by management as a necessary, progressive step in the overall improvement of quality-of-care indicators.
- Patients, companions, caregivers and families are involved in all program initiatives, making them important care team members and giving them a sense of empowerment during a difficult time.
- Evaluation of program outcomes is ongoing. Chart reviews are completed monthly—initially to gather a baseline of Braden completion and implementation into care planning, and then to monitor the practice changes relating to PUAP implementation. Prevalence investigation is conducted annually. The toolkit contains evaluation tools to test patient and clinician knowledge and satisfaction.

of pressure-redistribution aids.

- An improvement in nutritional programs was seen in two sites. The introduction of a twice-daily smoothie program at one site provides a good example of a change in practice resulting from PUAP implementation.

Most importantly, there was increased clinical discussion around risks and prevention.

Policy

Goals. Although “positive change of policy” was not built into the program at the outset as a goal, it became increasingly clear that changes in awareness leading to change in practice would not be sustainable unless accompanied by change in policy, so a goal of the pilot program became to provide the evidence needed to convince managers to continue to actively support the

program through positive policy decisions.

Outcomes. As practice changed in the areas of staffing, resource allocation, patient/family/caregiver/companion involvement in care, dietary fulfillment and other areas, facility administrators recognized the benefits to the facility, clinicians and patients, and made policy revisions as required.

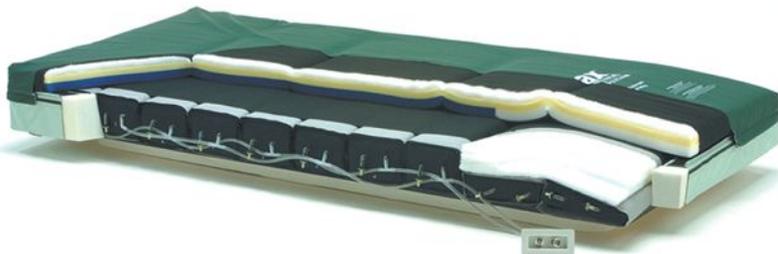
Prevalence

Goals. The ultimate goal for the program is to decrease the numbers of pressure ulcers in each facility.

Outcomes. In preliminary data one site reported pressure-ulcer prevalence of pre (2003) - 24.7 per cent, pre (2005) - 23.4 per cent, and post (2006) - 15.2 per cent, demonstrating a 35 per cent decrease in pressure ulcers upon PUAP implementation (Figure 2). The graph demonstrates that, even during a period when the facility purchased 60 additional support

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FIGURE 2



Once the PUAP was in place, pilot sites saw their prevalence of pressure ulcers drop almost immediately.

surfaces, prevalence rates remained virtually unchanged until the PUAP program was implemented. Then a reduction of 35 per cent was reported within the first two months alone. The feedback from the sites also indicates that awareness of the need for surfaces can lead to more effective use of all types of pressure-redistribution devices.

Another positive outcome was the early recognition and increased reporting of Stage I pressure ulcers and decreased numbers of Stage II, III and IV pressure ulcers reported. This kind of change will result in positive long-term results of prevalence when the recognition of Stage I ulcers leads to earlier interventions for preventing trauma to the skin.

Implications of Outcomes

The outcomes from the pilot suggest that facilities that implement the program can benefit in a number of ways:

1. Reduced pain, suffering and lowered mortality rates for patients. Hospital stay time may be reduced.
2. Cost savings: From our preliminary data and cost reports⁴ we can project the following scenario: If a 100-bed health-care facility has had a 35 per cent decrease in pressure ulcers, their annual cost saving could be anywhere from \$240,000 to \$1.2 million, depending on the degree of trauma and complications (uncomplicated Stage I: \$239,000 to Stage IV: \$314,000; complicated with critical colonization Stage II: \$352,000 to Stage III/

IV: \$390,000; complicated with osteomyelitis Stage II to IV: \$1,232,000).

3. Nursing workload is reduced.
4. Long-term-care facilities can demonstrate a level of quality if they implement an effective pressure-ulcer-prevention program. If quality indicators are made public, which is a likely possibility in the future, hospitals with a prevention program may be rated more favourably.

Pressure Ulcer Awareness Program

The CAWC's PUAP is now available to facilities interested in reducing their prevalence of pressure ulcers and fostering best practice in their prevention. The program includes a toolkit, educational materials, incentives and recognition certificates, a moderated discussion forum, access to the CAWC Team Leader, data collection materials, Champion hotline, annual analysis of data, Web site, and an annual certificate of achievement awarded if conditions of the program are met.

The fee, which works out to about \$5,000 per year, is based on the size of the facility to cover the costs of consumable items. A minimum three-year commitment is required.

This awareness and prevention program costs less than treating one pressure ulcer for two months. *Can you afford not to participate?* ☺

References

1. Woodbury MG, Houghton PE. Prevalence of pressure ulcers in Canadian health-care settings. *Ostomy/Wound Management*. 2004;50(10):22-38.
2. Kitson A, Harvey G, McCormack B. Enabling the implementation of evidence-based practice: A conceptual framework. *Quality in Health Care*. 1998;7:149-158.
3. Registered Nurses' Association of Ontario (RNAO). *Best Practice Guidelines for Risk Assessment and the Prevention of Pressure Ulcers*. Toronto: RNAO. 2005.
4. Bennett G, Dealy C, Posnett J. The cost of pressure ulcers in the UK. *Age and Ageing*. 2004;33(3):230-235.

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The Reality of Running a Pilot Program

Throughout the Pressure Ulcer Awareness Program (PUAP) pilot period, the team champions met to discuss their experiences. In every discussion, we found many commonalities surrounding the challenges and surprises we encountered. For readers wondering what the experience might be like in their own facilities, you may find our “top fives” interesting.

BY Jan-Marie Morgan,
RN (EC), BScN, MSc (c)

Top Five Challenges

5. **Language barriers.** Several of the facilities noted that their clientele speak many different languages—sometimes not including English—which presented a challenge to find interpreters to pass on the information.
4. **Maintaining administrative support.** In a few cases, managers wavered in their support for the program, but this challenge, once identified, was overcome with letters from the Team Leader and a conference call that rekindled support.
3. **Funding.** This was an issue as equipment needed for positioning and transferring had to be purchased in order to maintain skin integrity and follow the best-practice guidelines that served as the foundation for the project.
2. **Time constraints and workload.** Staff workload and time-constraints seemed to be a national problem. Finding time to educate the staff became a challenging task requiring innovation and imagination. However, each Champion was able to work with the staff and find ways to provide education that worked for everyone.
1. **What a lot of work!** Champions initially had no idea how much commitment and time would go into making this project a success, but all the champions were able to get the job done.

Top Five Surprises

5. **Recognition on accreditation report.** Several sites received recognition for the project on their accreditation report, strengthening their successful accreditation.
4. **Champions really can change practice.** Practice among the staff changed in positive ways. This was

evident by the reduction in the number of pressure ulcers as well as a recognition—and therefore, identification—of Stage I pressure ulcers that would have been missed before. New equipment was purchased in some cases, proving that administrators see the need to enhance patient care and prevent pressure ulcers.

3. **Positive feedback for the staff.** Although staff had to deal with workload issues and time constraints, their overall feedback was very positive. They enjoyed the education sessions, which enhanced their knowledge and skills and enabled them to provide better patient care.
2. **The quality of the materials provided.** The material that is provided by the CAWC is professional, thorough and very helpful. The “bum” logo was a huge hit and the champions were very surprised at the excellent quality and quantity of the available resources. We were also very thankful for the networking that was provided by the CAWC through teleconferences and e-mail. This support was invaluable.
1. **What a lot of work!** This was the biggest surprise to the champions, but we enjoyed every minute of it.

Working on the PUAP project has given the champions a humble sense of pride, knowing that we can make a difference to enhance patient care by decreasing the number of pressure ulcers. We understand that no one person can be responsible for changing an organization’s culture. We would all like to thank the teams that endured us, the administrators that supported us, and the staff that welcomed us with open arms. Each helped to make this project a huge success. ☺

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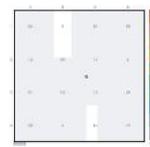
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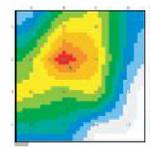
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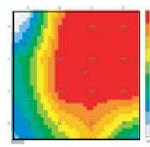
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|-----------------------|----------|
| Sensors included | 16 |
| Variation coefficient | 59.7% |
| Standard deviation | 26.8 |
| Average pressure | 44.8 |
| Maximum pressure | 100 |
| Center of pressure | 2.2, 2.2 |



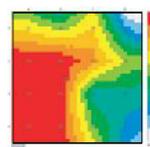
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|-----------------------|----------|
| Sensors included | 16 |
| Variation coefficient | 36.4% |
| Standard deviation | 28.2 |
| Average pressure | 77.5 |
| Maximum pressure | 100 |
| Center of pressure | 2.8, 2.4 |



Heel Pillow

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|-----------------------|----------|
| Sensors included | 16 |
| Variation coefficient | 40.5% |
| Standard deviation | 28.1 |
| Average pressure | 69.4 |
| Maximum pressure | 100 |
| Center of pressure | 2.1, 2.5 |



Report on Clinical Practice

This article focuses on the impact of the Clinical Practice component of the Pressure Ulcer Awareness Program (PUAP) Pilot in the clinical setting.

BY
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Throughout the program's implementation, many positive clinical outcomes were realized. One of the greatest changes noted was that Stage I pressure ulcers were recognized early—before they deteriorated to become deeper areas of injury. This early recognition by various members of the health-care team, including patients and families, facilitated the prompt implementation of appropriate interventions that prevented the progression

of skin damage. Prior to the program's implementation, pressure-related injuries were often not reported until the client's skin was actually open, and interventions were not implemented until pressure ulcers progressed to Stage II or III.

In some facilities, the medical director and key physicians became involved in supporting the program. Referrals to dietitians for patients with nutritional risks increased at many sites. At one site, needs increased so dramatically that additional resources were hired. A dietitian at another site created high-protein "smoothie" supplement drinks for patients with nutritional risks identified by the Braden assessment.

As involvement of occupational therapists, physiotherapists, family and caregivers increased, creative strategies for patient positioning, transfers, and the obtaining of special devices were noted.

During the pilot, it was discovered that although the

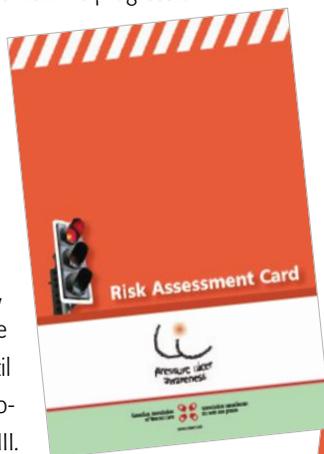
Braden Scale had been used at most sites prior to the program's introduction, a reduction in pressure-ulcer prevalence had not occurred. The Braden tool was re-introduced with a focus on the value it provides as a care-planning tool. Scores from the individual subscales were assessed to highlight factors that increased patients' risk for skin breakdown. This enabled staff to develop individualized plans of care targeted to the specific risks identified.

Targeted interventions were then recorded on colour-coded (according to risk level) Risk Action

Cards, which made it easy to identify patients' risk for skin injury on the plan of care. The interdisciplinary team conducted weekly skin-care rounds on all patients identified to be at high risk for skin breakdown as designated by the red Risk Action Cards. High-risk rounds facilitated early identifica-

tion of skin damage, ensured appropriate prompt interventions, and provided an opportunity for one-to-one education with staff, patients, and families, empowering them to take appropriate actions to prevent skin breakdown.

Throughout implementation of the program's clinical component, a few challenges were encountered. Flexible creative strategies were required to accommodate staff shortages, time constraints, limited resources, lay-off announcements, heavy workloads, frequent



interruptions, and conflicting priorities. Educational sessions were modified at some sites to accommodate staff availability. Some sessions were condensed into shorter 20- to 30-minute, interactive, small-group workshops that were delivered in meeting rooms located on the patient units. Staff attended as time permitted. High-risk skin rounds were incorporated into routine morning patient care, thus minimizing the impact on busy workloads by accommodating the nurses' schedule of care delivery.

Some sites reported difficulties in accessing resources such as physiotherapy (PT), occupational therapy (OT), prevention devices and equipment. Some physiotherapists and occupational therapists provided resources for the facilitator to utilize for the educational sessions when they were unable to participate.

The need for increased resources to prevent pressure ulcers was identified (equipment, dietitian, PT, OT, boots, surfaces, etc.). Some sites noted that patients and families became more involved in helping to reduce risk factors by assisting with repositioning and providing needed equipment and supplements.

In summary, many positive clinical outcomes resulted from this pilot project. The consistent use of the Braden Scale and high-risk skin rounds led to the early identification of pressure damage and individualized care plans targeted at specific risks. Increased involvement of the interdisciplinary team resulted in the implementation of both basic and creative strategies to reduce the risk for skin breakdown.

Also evident at most pilot sites was a positive shift in staff attitudes, awareness, and responsibilities related to pressure-ulcer prevention and the shift toward early intervention.

Some challenges to implementation included staff shortages, workloads, time constraints, frequent interruptions and conflicting priorities. These were effectively addressed through flexible and creative revisions to the timing and delivery of staff education sessions.

Overall, this program empowered the teams in each facility—including patients and their families—to change clinical practice at the bedside and to prevent pressure-ulcer occurrence. ☺

Wound Pain: Assessment and Management continued from page 16

26. Sibbald RG, Campbell K, Coutts P, Queen D. Intact skin: An integrity not to be lost. *Ostomy/Wound Management*. 2003;49(6):27-33.
27. Queen D, Woo K, Shultz VN, Sibbald RG. Chronic wound pain and palliative cancer care. *Ostomy/Wound Management*. 2003;49(10):16-18.
28. Percival SL, Bowler PG, Russell D. Bacterial resistance to silver in wound care. *J Hosp Infect*. 2005;60:1-7.
29. Sibbald RG, Orsted H, Schultz GS, Coutts P, Keast D. Preparing the wound bed 2003: Focus on infection and inflammation. *Ostomy/Wound Management*. 2003;49(11):24-51.
30. Reddy M. Chronic wound pain in older adults. *Geriatrics & Aging*. 2004;7(3):16.
31. Dykes PJ, Heggie R, Hill SA. Effects of adhesive dressing on the stratum corneum of the skin. *Journal of Wound Care*. 2001;10(1):7-10.
32. Fleck CA. Managing difficult-to-dress wounds. *ECPN*. June 2005:42-49.
33. Winter GD, Scales JT. Effect of air exposure and occlusion on experimental human skin wounds. *Nature*. 1963;197:91.
34. Hinman CD, Maiach HI. Effect of air exposure and occlusion on epidermal skin wounds. *Nature*. 1963;200:377.
35. Kannon GA, Garrett AB. Moist wound healing with occlusive dressings: A clinical review. *Dermatol Surg*. 1995;21:583-90.
36. Reddy M, Keast D, Fowler E, Sibbald RG. Pain in Pressure Ulcers. *Ostomy/Wound Management*. 2003;49(4A):30-35.
37. Krasner DL, Shapshak D, Hopf HW. Managing wound pain. In Bryant RA, Nix DP, (eds.). *Acute and Chronic Wounds: Current Management Concepts*, Third Edition. St. Louis: Mosby Elsevier. 2006;542.
38. Evans E, Gray M. Do topical analgesics reduce pain associated with wound-dressing changes? *Journal of WOCN*. 2005;32(5):287.
39. Alvarez O, Rogers R, Booker J. Treatment of painful skin ulcer with a biocellulose dressing containing lidocaine. Oral presentation at the Symposium on Advances in Skin and Wound Care in San Antonio, TX, May 2, 2006.
40. Hollingworth H. Pain and wound care. Wound Care Society Educational Leaflet. Huntingdon, U.K.: Wound Care Society. 2000;7(2).
41. Puntillo KA, White C, Morris AB, et al. Patients' perceptions and responses to procedural pain: Results from Thunder Project II. *Am J Crit Care*. 2001;10(4):238-251.
42. TenderWet Annex IV White Paper, Clinical experience/case studies. Heidenheim, Germany: TenderWet, Hartmann. 1998. [On file at Medline Industries, Inc, in Mundelein, IL.]
43. Fleck CA, McCord D. The dawn of advanced skin care. *Extended Care Product News*. 2004;95:32-9.
44. Sibbald RG, Mahoney J, The V.A.C.® Therapy Canadian Consensus Group. A consensus report of the use of vacuum-assisted closure in chronic, difficult-to-heal wounds. *Ostomy/Wound Management*. 2003;49(1):52-66.
45. Krasner D. Managing wound pain for patients with vacuum-assisted closure devices. *Ostomy/Wound Management*. 2002; 48(5):38-43.
46. Wariner R, Burrell R. Infection and the chronic wound: A focus on silver. *Advances in Skin and Wound Care*. 2005;18(Suppl 1):1-12.

Report on Education

In this article, we will explore the importance of the educational aspects of the Pressure Ulcer Awareness Program (PUAP) pilot and describe its impact in the clinical setting.

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AND
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The educational components of the PUAP consisted of a kick-off event to encourage curiosity about the issue of pressure ulcers, educational sessions and skill-development workshops to empower health-care providers, patients and families, and educational materials focusing on pressure-ulcer prevention, which were displayed in common spaces or available to take away.

The program's educational components raised the profile of pressure-ulcer risk-assessment and prevention strategies among frontline health professionals and each facility as a whole. Not only did education increase awareness of national recommendations and the need for local implementation, but it also reinforced evidence-based practice and prompted some institutions to develop improved protocols based on best practice.

Overall, staff at many levels of experience improved their competencies through attending the educational sessions. Among these competencies were identifying etiologic factors contributing to pressure-ulcer occurrence, identifying risk factors for pressure-ulcer development, accurately documenting the results of risk assessment, incorporating risk level into skin assessment and prevention strategies, and making referrals to other health-care professionals.

Consequently, there was an increase in awareness of the need for comprehensive and timely care plans. Several teams reported an increased collaboration of interprofessional teams that resulted in the development and implementation of care plans for new admissions and high-risk patients. This collaboration resulted in creative strategies and programs that directly responded to different subscales of the Braden Scale, the use of which had been a particular focus of the

educational sessions. A decreased prevalence of pressure ulcers and an increased reporting of skin redness/colour change and Stage I pressure ulcers were the results.

Educational materials were given to everyone likely to be affected by the program's implementation—including patients and families, which helped to enlist their active support in pressure-ulcer prevention. Once patients and families were educated regarding the principles of pressure-ulcer prevention, they were able to reinforce community expectations for high-quality care. They became active participants and learners.

Involving clinical and non-clinical staff on the teams not only added valuable feedback for the program but also improved job satisfaction. Many facilities were surprised at the level of interest the clinical and non-clinical staff had in contributing to ongoing quality improvement. Conducting shared case reviews and interprofessional high-risk rounds resulted in increased staff awareness of pressure ulcers and provided excellent opportunities for education and involvement of frontline staff with other disciplines. Many teams found ways to incorporate pressure-ulcer prevention in their daily routine, to identify the barriers for practice and to develop solutions.

The simple true-or-false tests given pre- and post-pilot helped to identify key pressure-ulcer knowledge and skill deficits among all levels of staff, thereby helping to identify educational needs. The posters and family/patient pamphlets introduced a venue for teaching principles for pressure-ulcer prevention and provided ongoing reminders of the importance of a preventative approach.

The program encountered some important challenges:

- During pilot program implementation, mostly over

the summer months, high census and staff shortages plagued nurses' ability to provide quality care, which increased awareness of the need for a structured, comprehensive education and assessment program adapted to the needs of the individual units or the facility's culture.

- In long-term-care centres, the education generally went very well when family members accompanied the resident during admission. In acute-care centres, however, education was difficult when patients were admitted directly to a surgical unit from the operating room, or were seriously ill and admitted through the emergency department. Ideally, the education would be provided during the pre-admission visit for planned surgical admissions.
- Language, comprehension barriers, and an inability to read English interfered with some patients' and families' education, especially when professional

translators were not available. The use of pictorial information to illustrate the main points of the prevention program would be helpful when educating those with limited understanding of English.

- The pilot program also reinforced the fact that support and commitment of facility management is essential if health professionals are to successfully implement pressure-ulcer-prevention recommendations. In facilities with budget restraints, for example, support for staff replacement for education off the units can be problematic if managers are not convinced of the benefits of pressure-ulcer prevention.

This experience as PUAP pilot champions has been fruitful and challenging—and has highlighted the need for education at all levels of health-care delivery. Education must be relevant, supported by administration and be actively mentored at bedside. ☺

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Report on Public Policy

This article will review the policy aspects of the Pressure Ulcer Awareness Program (PUAP) pilot.

BY
Carol Keefer, RN,
AND
Cathy Burrows,
RN, BScN



One goal of the program was to provide heightened awareness of pressure ulcers for all of the stakeholders in the health-care process: health-care providers (from frontline staff to managers), patients/residents, and families. When stakeholders are knowledgeable, empowerment can follow. When stakeholders are empowered, positive change is possible—and change is necessary when shifting from a treatment focus to a prevention focus.

Another goal was to provide the evidence needed to convince managers to modify facility policy, if necessary, to support activities that lead to pressure-ulcer prevention. In this way, the empowerment of the stakeholders needed to become formalized.

A long-term goal will be to use the pilot program results to encourage government health officials to create policies that will support a preventative approach. These policies will reduce the occurrence of pressure ulcers nationwide.

One of the most rewarding aspects of the pilot was a noticeable knowledge and attitude change among staff and families. The most significant change was that questions are now being asked about repositioning. The public feels more empowered now that they have more knowledge about pressure ulcers and how to prevent them. This is an important first step toward culture change in any facility.

As well, the program's structure has led to more effective teamwork with an increase in communication throughout the facilities. Nursing, dietary, restorative, physiotherapy, occupational therapy, support services and activity departments are now working collaboratively on prevention, resulting in a decrease in pressure-ulcer occurrence and in a more stimulating work environment.

As a result of the program, facility policy has been modified to support significantly improved documentation and more effective use of the Braden Scale and its incorporation into care planning and prevention

strategies. Management's reallocation of resources toward prevention has been another outcome. These factors will have a positive impact on any facility seeking accreditation.

A major challenge faced by the pilot participants was government criteria for management of pressure ulcers. Currently, most health ministries focus on treatment rather than prevention, and availability of funds for specialty surfaces is only accessible after a pressure ulcer has occurred. Ministries need to be aware that spending for prevention (on items such as surfaces, nutrition, incontinence products, increased staffing) is more cost-effective than spending solely on treatment. Evidence from the program may become an important tool for the Canadian Association of Wound Care as it moves forward to educate health policy-makers on the advantages of supporting a preventative approach.

Overall, the pilot project was very successful in educating facilities' stakeholders. The goal of heightened awareness has resulted in changing the knowledge, skills, attitude, and policy support from treatment to prevention—a culture shift in the right direction. We recommend that the health ministries adopt and implement policy for pressure-ulcer prevention as part of their mandate for all aspects of care. The expansion of this project to other homes and hospitals would benefit the public and would result in a major decrease in pressure-ulcer occurrence across Canada. ☺

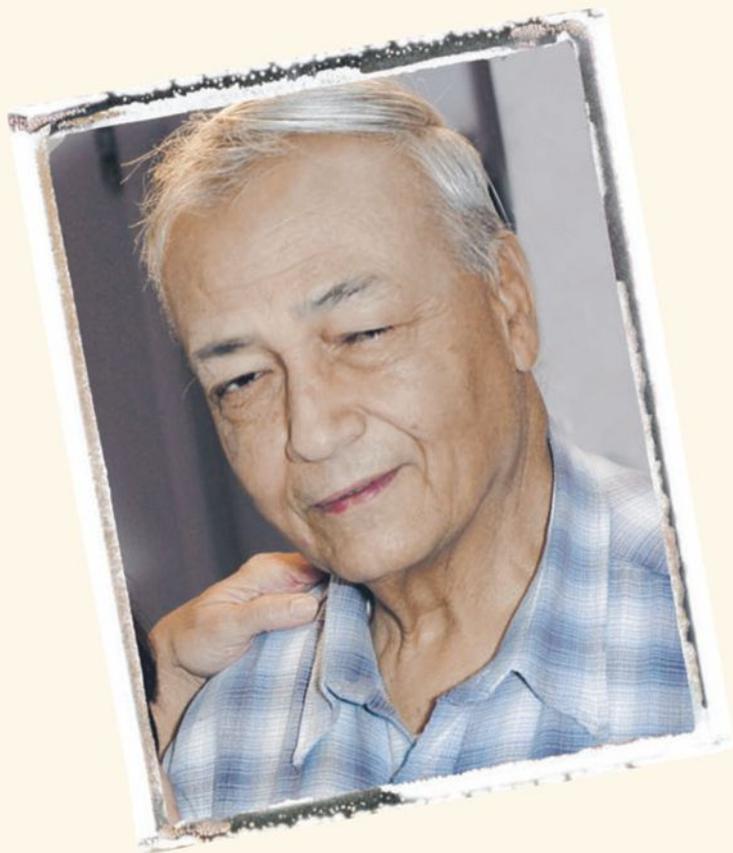
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1. Sibbald et al., 2006. Decreased chronic (persistent) wound pain with a novel sustained release ibuprofen foam dressing. Symposium on advanced wound care, 2006, April, San Antonio, Texas, USA

2. Jorgensen, B.; Friis, G. J.; Gottrup, F. Pain and quality of life for patients with venous leg ulcers: Proof of concept of the efficacy of **Biatain - Ibu**, a new pain reducing wound dressing. *Wound repair and regeneration* 2006, 14 (3), in press.

3. Flanagan, M.; Vogensen, H.; Haase, L. Case series investigating the experience of pain in patients with chronic venous leg ulcers treated with a foam dressing releasing ibuprofen. *World Wide Wounds* April 2006.

4. Steffansen, Bente and Herping, Sofie Paarup Kirkeby. Novel wound models for characterizing the effects of exudates levels on the controlled release of ibuprofen from foam dressings. *European Wound Management Association, Poster*. 2006, Prague, Czech Republic.

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Report on Evaluation

This article will review the evaluation aspects of the Pressure Ulcer Awareness Program (PUAP) pilot as well as describe the impact of the evaluation component on the clinical setting.

BY
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Evaluation of all aspects of the pilot program was done to determine the appropriateness and value of the awareness educational materials before introducing the materials nationally. In addition, we wanted to know if there was evidence of (1) an increase in awareness among clinicians, managers, patients and their families/caregivers, (2) a change in clinical practice, and (3) a change in the frequency of pressure-ulcer occurrence following the pilot project.

From the beginning, evaluation was a cornerstone of the pilot and was the most time-consuming aspect for the pilot site champions. All educational material and PUAP events were evaluated in many ways. The PUAP and its parallel evaluation process began with a kick-off event that was held at each site to announce and promote the program. Education sessions were offered for several weeks from May through July involving knowledge assessment (pre- and post-education) for staff, management, clients and families. In order to determine if a change in practice was occurring, charting audits were done before pilot commencement and monthly until the end of September 2006. Care reviews and high-risk rounds were implemented in all sites, with evaluations on these interventions as well. The site champions kept diaries to record the program's progress, including successes, challenges and impact on their sites.

The strength of this program fostered an increased

awareness of the existence and development of pressure ulcers through the collection of wound indicators. The recognition of the numbers and severity of these ulcers provided constant feedback for frontline staff. The implementation of the Braden Scale and introduction of the Care Planning Template facilitated a change in practice that reflected success through fewer wounds. Preliminary prevalence data have indicated a 35 per cent decrease in wounds with a presumed reduction in treatment costs.

The evaluation challenges encountered throughout the pilot were as follows:

- limited time to collect data and to support and mentor practice changes
- limited support from administration to provide prevention supplies, time to collect data, and time to evaluate the processes implemented
- constant staff shortages, which necessitated continuing education and clinical mentoring in order for the program to be successful, i.e., to effect a new clinical culture.

Results of Evaluation

The positive impact of the program, which was determined through the continuous evaluation, was huge!

1. The appropriateness and value of the educational materials were reviewed for improvement.

Pressure Ulcer Awareness Program Evaluation

| | Awareness | Practice | Outcomes |
|---------------------------|--|--|--|
| Initiative | Education <ul style="list-style-type: none"> • stages of ulcers • skin protection • pressure management • nutrition management | Implementation of new procedures <ul style="list-style-type: none"> • admission screening • high-risk rounds | <ul style="list-style-type: none"> • ↑ wound reporting • ↓ wound occurrences • ↑ team care-planning |
| Evaluation Process | <ul style="list-style-type: none"> • pre and post awareness quizzes | <ul style="list-style-type: none"> • chart reviews | <ul style="list-style-type: none"> • prevalence • diaries |

2. Awareness Results

Quantitative

On average, knowledge increased (based on percentage with correct answers)

- Frontline clinician: 77 per cent to 83 per cent
- Patient/families: 44 per cent to 90 per cent
- Management: 96 per cent to 100 per cent

Qualitative

- recognition of red/colour-changed areas
- reporting of red/colour-changed areas
- early intervention for Stage I pressure ulcers
- patients and families very pleased to receive information

An example that illustrates an increase in administration support—despite strong initial knowledge—was the purchasing of needed supplies for prevention.

3. Clinical Practice Results

Quantitative

Based on five chart review questions:

- Was the Braden score recorded in the chart?
- Was the risk status of the patient identified?
- Were the results of the Braden Score reflected in care planning?
- Was the patient aware of his/her risk for pressure ulcers?
- Is there a communication system in place to document the number of high-risk patients in the facility at any one time?

The average percentage correct for all five questions improved from 33 per cent in May to 67 per cent in September.

Qualitative

- increased use of support surfaces and positioning aids
- increased use and availability of pillows
- increased purchase and availability of pressure redistribution aids
- improvement in nutritional programs
- increased clinical discussion around risks and prevention, e.g., improved interprofessional collaboration to identify those at risk and development of appropriate care planning as a result of high-risk rounds and wound rounds.

4. Frequency of Occurrence of Pressure Ulcers

There was reduction in wound occurrences at all sites during the course of the program.

Quantitative

One site reported the following prevalence estimates:

- Pre (2003) - 24.7 per cent
- Pre (2005) - 23.4 per cent
- Post (2006) - 15.2 per cent

This is a decrease in prevalence of 35 per cent.

Qualitative

- recognition and increased reporting of Stage I pressure ulcers
- fewer Stage II, III and IV pressure ulcers

The opportunity to be a part of this pilot program has been a catalyst at all pilot sites to improve the skin- and wound-care education that is being provided for all stakeholders in pressure-ulcer prevention. We have seen local improvement in prevalence but also in clinical practice through the effective use of the Braden Scale and the Care Planning Template to reflect risk and needs.

The results of the evaluation process for the pilot indicate that the program is a very effective enabler for fostering better interprofessional collaboration for a health-care issue that has been under-recognized. ☺