

# A Saudi rehabilitation facility fights pressure ulcers

Sultan Bin Abdulaziz Humanitarian City is committed to serving as a center for wound care excellence.

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A common problem in long-term care facilities, pressure ulcers are linked to prolonged hospitalization, pain, social isolation, sepsis, and death. This article explains how a Middle East rehabilitation facility battles pressure ulcers with the latest evidence-based practices, continual staff education, and policy and procedure updates. Sultan Bin Abdulaziz Humanitarian City (SBAHC) in Riyadh, Saudi Arabia, uses an interdisciplinary approach to address pressure-ulcer prevention and management. This article describes the programs, strategies, and preventive measures that have reduced pressure-ulcer incidence.

## Committed to excellence

With 409 beds, SBAHC is the largest rehabilitation facility in the Middle East; it treats both inpatients and outpatients. Therapeutic, supportive, and educational services are designed to restore patients' health and function after acute illness and promote their safe return to the home and community. SBAHC admits adult and pediatric patients who have suffered brain injuries, spinal-cord injuries (SCIs), stroke, and limb loss. The facility also offers other services (such as prosthetics, orthotics, and wound care) at clinics that operate 5 days a week.

SBAHC launched its wound care service in late 2007, with the mission of becoming a center for wound care excel-



lence. To prevent and manage pressure ulcers, it uses guidelines from the National **Pressure Ulcer Advisory Panel** (NPUAP) ([www.npuap.org](http://www.npuap.org)) and the **European National Pressure Ulcer Panel**. From the onset, the SBAHC administration has fully supported efforts to eradicate pressure ulcers. It has a well-defined process, studied thoroughly and approved by an interdisciplinary team, for identifying, preventing, and managing pressure ulcers.

## Initial evaluation

Before admission, patients are screened with special attention to their rehabilitation potential. (Patients who need acute medical care are transferred to an acute-care facility.) Those admitted with community-acquired pressure ulcers are distinguished from those with hospital-acquired pressure ulcers (HAPUs). Within 2 to 6 hours of admission, all patients undergo a comprehensive, front-to-back and head-to-toe skin assessment to check for wounds. Within 24 hours, a pressure ulcer or other wound must be documented; pressure ulcers found later than 24 hours after admission are considered HAPUs.

Also on admission, patients undergo a risk assessment using the **Braden scale**, a standardized assessment tool for evaluating pressure-ulcer risk. Early identification of at-risk patients is crucial for early implementation of preventive measures and to establish a baseline for later comparison, as when patients sustain new wounds in the facility. The Braden score corresponds to a **prevention protocol** that varies with the patient's risk level. A change in the patient's condition calls for reevaluation with the Braden scale. All direct-care staff are involved in the process and take an active role in the protocol. Pressure ulcers of all stages are referred to the wound care specialist, who in turn may refer the patient to the consultant surgeon, if needed.

## Pink clover status

A communication process alerts all SBAHC care providers that a patient has developed a pressure ulcer or is at increased risk. A rotating pink clover icon (chosen to symbolize that healthy skin is pink and that the patient requires repositioning and checking of the skin) is activated for patients with Braden scores of 18 or below. This alert icon appears across the patient's name and medical-record number in the electronic system,

signaling caregivers to use caution because certain types of care or other activities may cause or exacerbate existing pressure ulcers in at-risk patients.

## Campaign to lower HAPU rates

The alarming rate of pressure ulcers impelled the SBAHC wound care team to review and revise existing preventive measures, develop new policies and procedures (which are reviewed annually and revised every 3 years or as necessary), and fine-tune its prevention and management protocols. HAPU incidence became an internal quality indicator. In 2012, an initiative was implemented to re-

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duce HAPU incidence to less than 1% of the monthly total average census. The project had three goals:

- to educate at least 80% of all direct-care staff (including nursing, medical, and rehabilitation staff) on pressure-ulcer identification and prevention
- to reduce pressure-ulcer incidence in patients with SCIs to less than 27% of the total incidence (monthly report trends and data from other hospitals worldwide indicate most pressure ulcers occur in SCI patients)
- to reduce the number of pressure ulcers in patients permitted to go on therapeutic-leave pass to 50% or fewer monthly, within 1 year.

The HAPU prevention team took on the challenge of lowering the incidence. At monthly meetings, staff receive up-

dates on issues related to pressure ulcers. The team addresses these issues, identifies factors that contribute to pressure ulcers, discusses updated evidence-based practices in areas that may need improvement, and provides input on implementation with team members' consensus.

By the end of 2012, about 82% of direct-care staff had received education. From 2011 to 2012, pressure-ulcer incidence in SCI patients dropped significantly to 18.6%. Also that year, no pressure ulcers were reported in patients who had therapeutic-leave passes. Overall, the project has achieved its goals. Average HAPU incidence for 2012 was 1.8%. Incidence for 2013 was 1.05%—a 41.6% decrease.

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Because a lower HAPU incidence reflects a facility's high standards of care, these initiatives have placed SBAHC's quality of care in the spotlight. In published data, HAPU rates in long-term care facilities range from 2.2% to 23.9%. At SBAHC, the goal is a rate below 1%.

### Pressure-ulcer surveys

Monthly HAPU incidence reports are compiled for monitoring and reference. The facility also conducts a quarterly point-prevalence survey. The survey measures the proportion of individuals in a defined population who have a pressure ulcer at a given time, such as a particular date.

For the second year, a hospital-wide prevalence survey was conducted simultaneously in all in-patient units, with a thor-

ough skin check of all patients admitted on a designated day. Total prevalence included all patients with preexisting pressure ulcers and those with HAPUs. (However, not all patients could participate. Some were in therapy sessions or undergoing procedures outside the unit; others simply refused to be assessed.) Inter-rater reliability testing using kappa statistics has been adopted and results are submitted quarterly, with the goal of comparing reliability of pressure-ulcer identification by the nursing and medical staff to that of SBAHC wound care specialists.

### Staff training and testing

As part of our continual staff education on pressure ulcers, all newly hired direct-care staff receive initial training and competency testing in wound care procedures. Topics include frequency of skin inspections and reinspection in patients at risk for pressure ulcers, use and implementation of pressure-ulcer prevention plans and protocols, identification of pressure-ulcer stages based on NPUAP guidelines, and completion of the comprehensive wound-assessment tool. Annual competency checks are done for staff who have been with SBAHC for more than 1 year to ensure their current practice is evidence-based and doesn't deviate from standards. Nursing staff (including nurses' aides) receive weekly wound care education sessions, with greater emphasis on pressure-ulcer prevention and identification. Physicians and rehabilitation staff are educated in separate sessions. The goal is to ensure that at least 80% of all direct-care staff receive education aimed at reducing or eliminating pressure ulcers.

### Expanding the wound care service

Currently, the wound care unit at SBAHC has four beds and admits patients with stage 3 or 4 pressure ulcers or unstageable ulcers who have rehabilitation potential. The goal is to treat patients capable of sus-

## Photos tell the story

The images below show the progress of a patient's pressure ulcers from the time of admission to Sultan Bin Abdulaziz Humanitarian City on August 7, 2013, until October 27, 2013. This patient was transferred to rehabilitation services for a full rehabilitation program once his wounds improved, and was discharged with the wounds fully healed. He verbalized an understanding of pressure-ulcer prevention and skin care, as well as the importance of avoiding one position for long periods.



taining an optimal functioning level after their debilitating pressure ulcers heal. Later, the service will expand to up to 11 beds, with patient stays of at least 6 weeks.

The first patient admitted to the service had a stage 4 pressure ulcer on the right trochanter; after 1 month of wound management, he was discharged with the ulcer healed and was able to participate in intensive rehabilitation sessions. Other patients have been admitted with multiple and more severe pressure ulcers; their wounds have improved significantly. (See *Photos tell the story.*)

Some patients' wounds aren't totally healed at discharge because of expired funding, noncompliance with management, or refusal to cooperate. They are advised to return to the wound care clinic to ensure continuity of care. SBAHC plans to implement benchmarking to compare its performance against that of other facilities and help gauge

the success of its pressure-ulcer practices.

### 100 Days campaign

Around the same time SBAHC opened its wound care unit, the hospital launched the "100 Days—100% HAPU Free" Campaign. The goal was to reach zero HAPUs in all hospital units for 100 days and to empower all healthcare providers in all disciplines to use effective pressure-ulcer prevention strategies. This campaign was the first of its kind in the Middle East. Spearheaded by the SBAHC wound care team, the campaign spotlights our facility as a role model for evidence-based, innovative wound care. ■

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