



Diabetes increases pressure-ulcer risk more than other comorbidities

Diabetes is linked to pressure ulcers in nursing home, hospital, perioperative, rehabilitation, and home settings, according to a meta-analysis in the *International Journal of Dermatology & Research*. Half or more of the studies found that diabetes had a “close association” with pressure-ulcer development in all of the settings.

The authors of “**The association between pressure ulcer development and patient comorbidities in varied care settings: A review of the literature**” found that cardiac, renal, and respiratory diseases were associated with pressure-ulcer development in many of the settings.

Incidence density best measure of pressure-ulcer prevention program

According to the National Pressure Ulcer Advisory Panel (NPUAP), incidence density is the best quality measure of pressure-ulcer prevention programs. **Pressure-ulcer incidence density** is calculated by dividing the number of inpatients who develop a new pressure ulcer by 1,000 patient days. Using the larger denominator of patient days allows fair comparisons between institutions of all sizes.

NPUAP notes that incidence density is typically determined by counting the number of patients with newly acquired pressure ulcers and dividing that number by the number of patients examined for pressure ulcers over a given period of time. This technique means that smaller facilities can appear to have a higher percentage of patients with ulcers because there are fewer patients in the denominator. For example, 5 patients with ulcers out of 100 patients assessed equals a 5% incidence. The same number of patients with ulcers (5) among 500 patients assessed is only 1%. Using patient days as the denominator stabilizes the result.



LIV may improve wound healing

A study in *PLOS One* has found that whole body low-intensity vibration (LIV) improves wound healing in mice with diabetes. The mice received excisional cutaneous wounds and either LIV or a nonvibrated sham treatment. Wound tissue was collected 7 and 15 days after the wound.

The authors of “**Low-intensity vibration improves angiogenesis and wound healing in diabetic mice**” conclude that, “LIV may exert beneficial effects on wound healing by enhancing angiogenesis and granulation tissue formation, and these changes are associated with increases in pro-angiogenic growth factors.”

Lymphedema after SLN dissection more frequent than thought



Lymphedema after sentinel lymph node (SLN) dissection in women with early-stage clinically node-negative breast cancer occurs more often than clinically suspected, and the incidence of lymphedema increases over time, according to an abstract presented at the Society of Surgical Oncology 67th Annual Cancer Symposium, March 12-15, 2014, and published in *Annals of Surgical Oncology*.

The authors of “**Long-term incidence of lymphedema after sentinel lymph node dissection for early stage breast cancer: ACOSOG Z0010**” found that the cumulative incidence of lymphedema after SLN dissection was 3.7% at 1 year, 8.9% at 3 years, and 11.9% at 5 years by subjective assessment ($n = 3,993$) and 10.5% at 1 year, 17.4% at 3 years, and 24.1% at 5 years by objective arm measurements ($n = 3,918$).

Barriers to MRSA prevention identified

“**Preventing transmission of MRSA: A qualitative study of health care workers’ attitudes and suggestions**” reports that healthcare workers identified the following as barriers to

eliminating MRSA (methicillin-resistant *Staphylococcus aureus*): patient care demands, equipment availability, environmental issues, practices of other healthcare workers, and lack of sufficient signage indicating which patients need contact precautions.

The study in the *American Journal of Infection Control*, which included 26 acute-care healthcare workers, found that most participants felt responsible for preventing transmission and feel they have the knowledge and desire to do so.



Exercise improves balance in older adults with diabetes

“**Exercise improves gait, reaction time and postural stability in older adults with type 2 diabetes and neuropathy**,” according to a study in the *Journal of Diabetes and Its Complications*.

The study included 37 adults (21 without neuropathy and 16 with neuropathy). Adults participated in either moderate or intense supervised exercise training three times a week for 12 weeks.

Patients with lymphedema should be referred to specialist

“**Management of primary and secondary lym-**

lymphedema: Analysis of 225 referrals to a center

concludes that patients with suspected lymphedema should be referred to specialists who focus on the disease.

The study in *Annals of Plastic Surgery* notes that 25% of the patients with “lymphedema” who were referred to the center had another condition. In addition, 34% of patients with lymphedema received tests that aren’t diagnostic for the condition and 8% received a diuretic, which doesn’t improve lymphedema.



Hospital stays involving surgery are costly

In 2011, hospitalizations that involved operating room (OR) procedures constituted 29% of the total 38.6 million hospital stays in the United States and 48% of the total \$387 billion in hospital costs, according to a **2014 statistical brief** from the Agency for Healthcare Research and Quality.

“Characteristics of operating room procedures in U.S. hospitals, 2011” also found that hospital stays involving an OR procedure were about twice as costly as stays with no OR procedure, but were half as likely to result in patient deaths. Other findings include:

- The 20 most common procedures accounted for more than half of all OR procedures. (Cesarean section and circumcision were the most frequent OR procedures.)

- Twenty procedures accounted for more than half of all costs for stays involving OR procedures.

Spinal fusion, knee arthroplasty, and percutaneous coronary angioplasty were the procedures with the highest aggregate hospital costs.

Weekly applications of allografts more effective in healing DFUs

Diabetic foot ulcers (DFUs) that receive weekly rather than biweekly applications of allografts heal more rapidly, according to a study in *International Wound Journal*. Application of the allograft was followed by a nonadherent, moist dressing with compressive wrapping, and all wounds were offloaded.

“**A prospective, randomised comparative study of weekly versus biweekly application of dehydrated human amnion/chorion membrane allograft in the management of diabetic foot ulcers**” reports that over the 12-week study period, 92.5% of ulcers completely healed, confirming the value of allografts as an effective treatment.



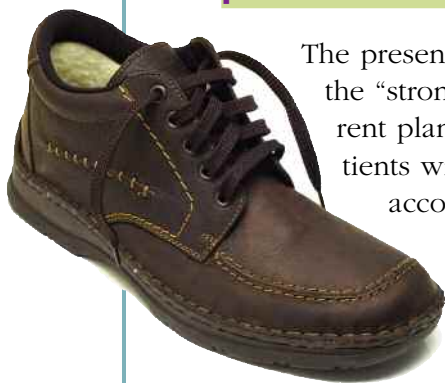
Ostomy lowers QOL in survivors of rectal cancer

Patients who survive rectal cancer but have an ostomy experience a lower quality of life (QOL), worse illness perceptions, and a higher consumption of health care, compared to those without an ostomy 1 to 10 years after diagnosis.

“Living with the physical and mental consequences of an ostomy: A study among 1- 10-year rectal cancer survivors from the population-based PROFILES registry” was published in *Psycho-oncology*. A total of 1,019 (76%) of patients in the registry who had colon cancer responded to the survey, and 43% of those had an ostomy.

The study also found that survivors with an ostomy believed that their illness has “significantly more serious” consequences and will last longer and that survivors with an ostomy were more concerned about their illness compared with those without an ostomy.

Minor lesions predict recurrent plantar foot ulcers



The presence of a minor lesion is the “strongest predictor” of recurrent plantar foot ulcers in patients with diabetic neuropathy, according to a study in *Diabetes Care*. The study also found that use of adequately offloading footwear helps protect against recurrence from unrecognized repetitive trauma.

“Risk factors for plantar foot ulcer recurrence in neuropathic diabetic patients” included 171 patients, 71 of whom had a recurrent ulcer. Other predictors of recurrence included day-to-day variation in stride count and cumulative duration of past ulcers.

Patient education after stoma creation may reduce healthcare costs

A study in the *Danish Medical Journal* reports that patient education for those who

have had a stoma created increases quality of life and doesn’t result in significant increase in overall healthcare costs. In fact, the authors of **“Patient education after stoma creation may reduce health-care costs”** found a significant reduction in costs related to unplanned readmissions and in visits to the general practitioner.

Exercise improves PAD outcomes

“Community-based walking exercise for patients with peripheral artery disease: A pilot study” reports that the program, which included training, monitoring, and coaching components, improved exercise performance and patient-reported outcomes.

The study abstract, published in *Vascular Medicine*, notes that patients with peripheral artery disease (PAD) were randomized either to the program, which lasted 14 weeks, or to standard treatment, which consisted of clinical advice to walk. A total of 19 patients completed the study.



Braden scale may not be valid in ICU

The Braden scale has insufficient predictive validity and poor accuracy for determining which intensive care unit (ICU) patients are at risk for pressure ulcers, according to a study in the *American Journal of Critical Care*.

The authors of **“Predictive validity of the Braden scale for patients in intensive care units,”** which included 7,790 ICU patients in the analysis, write, “The Braden scale may not sufficiently reflect characteristics of intensive care patients.” ■