

## **TeleWound Technology Enhances Patient Care**

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Lehigh Valley Health Network (LVHN) Magnet® and NICHE member hospitals in Allentown, Pa., patients with a 'present upon admission' pressure injury and those who develop a Stage 2 or greater pressure injury, receive a nurse-generated consultation to an LVHN certified Wound Ostomy Continence Nurse (CWOCN).

### **Assessment**

The CWOCN then visits the patient and completes the following:

1. Assesses the wound
2. Reviews the admitting nurse's ulcer staging and plan of care
3. Either confirms agreement or (collaboratively with the bedside clinical nurse) makes revisions.

### **Environment**

The LVHN Transitional Skilled Unit (TSU) is a Medicare certified, hospital based, skilled nursing facility with 52 licensed beds. The unit provides short-term rehabilitation for persons recently hospitalized for medical or surgical conditions. The TSU is located at the center-city Allentown hospital. The CWOCNs have offices at the other two hospitals, respectively 10 and 5 miles from the TSU. Thus, due to the workload of the CWOCNs at their "home" campus and the travel time to go to TSU, the TSU consults were not always completed in a timely manner, sometimes taking up to or greater than 72 hours.

For several years, LVHN had an established TeleWound program. This program utilizes digital cameras, an imaging database, personal computers, and smart phones to provide recommendations for treatment of complex wounds for patients in external, non-LVHN owned facilities through formal consultations with LVHN wound experts. This capability, as well as evidence that digital photo and mobile phone technology are effective tools to manage wounds remotely (Vowden and Vowden, 2013) prompted establishment of an internal TeleWound program, between the organization's CWOCNs and TSU staff. The goal was to improve quality of care through early and accurate staging of pressure ulcers, resulting in timely and appropriate interventions.

### **Results**

The TSU nurses were oriented to camera use and taking photos which best depict the wound. Wound staging and evidence-based interventions were reviewed, with inter-

rater reliability conducted by the CWOCNs. Photos as well as initial staging and care plan interventions are uploaded by the TSU nurse to the Electronic Medical Record (EMR).

The CWOCNs review the photos and plans at 8:00AM for those consults placed since 5:00PM the previous day, and mid-afternoon for consults placed since 8:00AM that same day. The CWOCN phones the designated TSU clinical nurse and provides a nurse-to-nurse phone consultation regarding wound staging and a treatment plan. Real-time documentation of the consultation is done by the CWOCN directly into the EMR. The photo serves as a baseline to follow wound progression.

### **Progress**

This process was initiated in December, 2013. During the first year of implementation, all pressure injuries improved or healed by discharge; none deteriorated. During calendar years 2015 and 2016, there were a total of 69 TSU-acquired pressure injuries. Of these 1 deteriorated, 35 improved and 33 had no change by discharge. All wounds were seen within 24 hours except on holidays and weekends. As the program has progressed, TSU nurses have become increasingly skilled in independently staging pressure injuries more accurately and initiating proper treatment. The Agency for Healthcare Research and Quality Statistical Brief no. 64 (Jankowski, 2010) reports that pressure injuries are increasing nation-wide. The LVHN internal TeleWound program can be used as a model to assure timely consultations to bedside nurses by wound care experts, ultimately decreasing pressure injury progression and healing.

### **References**

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