No More Sores:
Nasal Cannula Related Pressure Ulcers Down To Zero

Authors: Molykutty Lukose, MSN, RN, CWON, CFCN, Lillykutty Thomas MSN, RN, Dorothy Jones RN, BSN, CWCN, Gustavo Camacho-Del Rio, MBA/MHA, MAP, BSN, RN, Jacqueline Sharkey MSN, RN, and Ruby Chu PHD®, RN, CCRN.
Michael E. DeBakey VA Medical Center, Houston, Texas

Background
Medical device related pressure injuries secondary to the use of devices applied for diagnostic or therapeutic purposes is a significant problem in healthcare facilities. Skin Risk Management team at a large teaching facility in south central United States implemented a prevention program to reduce the hospital acquired pressure ulcer (HAPU) from nasal cannulas. The incidence of nasal cannula related HAPU was 5.4% starting January 2014 to November 2014.

Methodology
Utilizing the PDCA (Plan-Do-Check-Act) cycle an action plan was initiated. A multidisciplinary team assessed the current state of practice (hard nasal cannula/high flow padded with foam dressing to protect the posterior ear to prevent skin breakdown) and investigated the cause of HAPU from the nasal cannula. Literature review was conducted for best practice and other alternative for nasal cannula. The soft silicone nasal cannula was piloted for 2 weeks in July 2014 then implemented throughout all nursing units. Staff education was provided on proper device application, skin assessment, and documentation. Evaluation tool was created for pre and post assessment. Follow-up teachings were organized for compliance.

Aim
To evaluate if the use of soft silicone nasal cannula device would reduce the hospital acquired pressure ulcer in adult patients.

Results
Incidence of nasal cannula related HAPU decreased to zero and maintained for 23 months after soft silicone nasal cannula implementation. The potential yearly cost saving was $41,932 from eliminating the use of foam padding in addition to nursing time gained.

Conclusion
A collaborative effort using the PDCA framework achieved a HAPU rate of zero. Use of soft silicone nasal cannula and staff education were instrumental in HAPU prevention. The medical Center implemented soft nasal cannula and posterior ear check as a standard of care.

References