

## **Real Time Pressure Ulcer Incidence Drives Quality Improvement**

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**Purpose and Rationale:** National pressure ulcer quality standards recommend measurement of quarterly prevalence and incidence to provide comparisons within the hospital and benchmarking externally. Recent increased focus on regulatory and safety initiatives necessitates real time pressure ulcer data analysis to drive rapid refinements in care. Our institution has implemented a system of collecting real time incidence of pressure ulcers in addition to national comparison quarterly data collections.

**Research Questions:** Can the addition of real time pressure ulcer incidence data drive pressure ulcer quality improvement?

**Synthesis of Review of the Literature:** National and international pressure ulcer guidelines recommend measurement of hospital pressure ulcer rates as a key to improving quality (NPUAP / EPUAP 2009; IHI 2008; NDNQI 2010; WOCN 2003). Demonstrated quality principles include small tests of change, root cause analysis, always practice bundling, front-line staff action plans, executive support, sharing of outcome data with work groups, rapid integration of improvement cycles into care (Garrett J et al 2009, Kizer KW & Stegun MB 2009, Stahl R et al 2003, Welton JM 2008).

**Methods / Procedures:** Real time pressure ulcer data is collected from a variety of sources including: electronic and phone request for wound consultation, wound rounds case finding and event reporting. Certified wound nurse team evaluates patients and then verifies/collaborates/determines staging and plan of care. Daily, weekly and monthly hospital acquired incidence and prevalence statistics are compiled and analyzed via a combination of wound census, home grown database, manual entry and interface with EMR. Unit based data are posted on hospital intranet quality icon site and distributed to managers and quality facilitators for monthly unit-based quality meetings. Data is analyzed for root cause by the monthly Performance Improvement Nursing Council. Nursing Managers can access real time wound staging on manager rounds reports. Hospital-wide Quality Council reviews reports quarterly and benchmarks on a dashboard. Horizontal service line pressure ulcer outcome is analyzed for the cardiac surgery, orthopedic, trauma and rehabilitation programs resulting in specific examples of care improvements.

**Results:** Over 18 months, real time pressure ulcer data converged with quarterly prevalence and incidence data, validating the methodology. Considerable variation exists in the rates of pressure ulcers when monitored on a real time basis. Distribution of real time data to caregivers affords rapid quality improvement cycles. Hospital acquired pressure ulcer rates have declined.

**Discussion / Application to Practice:** Quarterly prevalence and incidence pressure ulcer data is helpful for basic quality benchmarking but must be supplemented with more detailed real time rate analysis in order to meet demands of current regulatory, financial and safety goals.