

# **From Pressure Ulcer Prevalence to Incidence with Implementation of Resource Nurses and an Electronic Medical Record**

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## **Introduction**

Pressure ulcer (PU) prevalence is only a cross section measure of PU occurrence where incidence is a measure of all occurrences. Prevalence rates can provide a measure of a hospital's PU problem while the incidence rate will indicate the quality of nursing care provided. A reliable measure of nosocomial PU incidence was needed to evaluate nursing practice at our hospital and improve patient outcomes.

## **Background**

Pressure ulcers are a critical patient problem for hospitals causing increased costs and extending hospital stays. In 2005 we evolved from annual PU prevalence surveys to quarterly surveys which provided the data needed to drive performance improvement activities at the unit level.

## **Purpose**

To demonstrate how decentralizing data collection can be accomplished in a 555 bed tertiary care teaching hospital through unit based nursing resource teams. Wound Ostomy Continence (WOC) Nurses totaling 1.8 FTE could not complete quarterly PU prevalence surveys in this large hospital yet staff nurses did not have adequate knowledge to participate.

## **Methods**

In March 2005 a group of 13 teams representing the hospital's nursing units was designed for the purpose of completing quarterly PU prevalence surveys. Nursing teams could affect validity of data collection therefore ongoing training would be necessary. The teams became members of the Skin Management Committee facilitated by the WOC Clinical Nurse Specialist and met monthly for wound education, evaluation of prevalence data, and reporting unit based activities to impact PU nursing practice. Through committee activities staff were empowered and mentored to evaluate prevalence data at the unit level and make individualized action plans for better patient outcomes which impacted PU incidence in the long run.

Beginning with the June 2008 prevalence survey a new electronic medical record (EMR) improved efficiency of data collection and provided more accurate patient information. Incidence of PUs was measured by electronic data collection in the EMR of all nosocomial PUs. Nursing unit and hospital wide incidence rates were reported at each committee meeting.

## Pressure Ulcer Monthly Incidence Rates

Pressure Ulcer Incidence	
November 2008	0.57%
December 2008	0.47%
January 2009	0.27%
February 2009	0.51%
March 2009	0.21%
April 2009	0.56%
May 2009	0.37%
June 2009	0.22%
July 2009	0.33%
August 2009	0.47%
September 2009	0.66%
October 2009	0.32%

### Evaluation


Our Skin Committee of nursing teams trained and mentored in PU identification and data collection impacted nursing awareness and patient outcomes evidenced by a low rate of PU prevalence and incidence. Prevalence rates are consistently lower than the national averages and our overall hospital incidence rate for October 2009 was only 0.32%. Incidence rates are expected to be no higher than 2% and nationally have been reported as high as 38%. The EMR provided accurate data and a venue for measuring PU incidence. With reliable incidence rates collected from our EMR we have a valuable measure of the quality of our nursing care. Practice improvement activities driven by accurate data have a better chance to improve patient outcomes.

The screenshot shows a form titled "Wound" with the following fields and buttons:

- Date First Assessed: [ ] [ ] [ ]
- Time First Assessed: 0805 [ ] [ ]
- Noted:: [ On Admission ] [ **Nosocomial** ] [ Surgical ] [ ]
- [ Abrasion ] [ Burn ] [ Catheter entry/exit site ]

In the EMR nurses click on “Nosocomial” for hospital acquired wounds or “On admission” if the wound was present prior to admission.

Wound Type:

Abrasion	Burn	Catheter entry/exit site	
Circumcision	Extravasation	Incision	
Laceration	Pressure Ulcer		
Vascular Ulcer	Skin Tear		
Neuropathic (Diabetic)	Other (Comment)		

Under Wound Type, nurses click on “Pressure Ulcer” or other buttons indicating correct wound type. Diabetic foot ulcers, vascular ulcers, or skin tears are not documented as pressure ulcers. This function provides precise classification of wounds which increases the accuracy of our PU incidence rate.

### **Implications for Practice**

With use of the EMR wounds that are not PUs are classified for their correct etiology resulting in more accurate PU prevalence and incidence rates. Our PU rates may be lower than national averages partly due to accurate classification of skin breakdown and correct wound documentation. Inter-rater reliability studies could provide validity and strength to these conclusions.