Using Technology to Enhance Identification and Documentation of Pressure Ulcers/Injuries (PU/I): Present on Admission (POA) Project

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Background

Many patients are admitted to the hospital with pressure ulcer/injuries (PU/I) that are present on admission (POA) not identified or staged.

Loss of funds as stage 4 PU/I POA are reimbursed at a higher rate. Also, POA may be misclassified as a hospital acquired PU/I if not documented and staged on admission.

Problem

High rate of unstaged PU/I POA in EMR

Hospital	Discharge Year	Total PU POA	Discharges	% Discharges	Total Staged POs	Unspecified Stage	% of unspecified from total PU
UCDAVIS	2017	859	35,841	2.4%	1191	81	6.4 %
UCDAVIS	2018	811	33,828	2.4%	1208	68	5.3 %
UCIRVINE	2017	568	22,874	2.5%	680	87	11.3 %
UCIRVINE	2018	351	22,206	1.6%	408	64	13.6 %
UCLA-RR	2017	326	23,638	1.4%	403	62	13.3 %
UCLA-RR	2018	335	23,947	1.4%	409	89	17.9 %
UCSF	2017	520	38,629	1.3%	523	160	23.4 %
UCSF	2018	573	37,897	1.5%	597	159	21.1 %
UCSD	2017	500	32,930	1.5%	521	160	23.5 %
UCSD	2018	527	34,730	1.5%	585	187	24.2 %

Previous workflow was time consuming and provided invalid and unreliable data:

- At this level 1 trauma center for PU/I POA required an Incident Report (IR) taking 15-17 minutes to complete by the bedside nurse, 15 minutes of quality nurse review, 15 minutes of unit manager review, and 15 minutes by the IR category manager review per IR.
- We receive over 2,000 IRs per year for PU/I POA. The IR data was not valid, reliable or auditable.

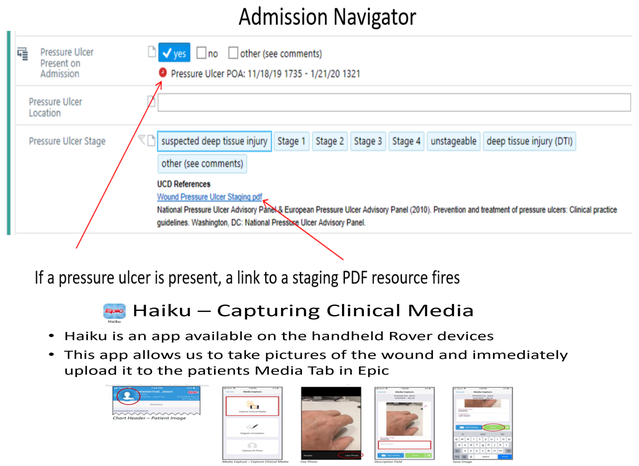
Aim

Identify and stage all PU/I POA by using electronic medical record (EMR) to create a new workflow for PU/I POA and eliminate the required POA IR work flow.

Methods

-Collaborating with the IT team and the Quality and Safety team we created a mandatory EMR field: "Does this patient have a PU/I POA?" If "yes", the link for: "Need help staging?" opens with definitions and images of PU/I for matching.

-The nurse then uses the Rover (medication administration device with photo capability) to take a photo which is embedded directly into the EMR.



If a pressure ulcer is present, a link to a staging PDF resource fires

-Daily reports are created and matched with the photos to validate the stage and perform inter-rater reliability by certified wound care nurses.

Results

With this new process and flow:

- We implemented mandatory Best Practice Alert in EMR that improved identification of PU/I POA from 5 PU/I POA identified per week to 60 PU/I POA identified per week.
- We are able to track and audit those patients identified as having PU/I POA and capture the coding for stages 1-4 PU/I, POA and to track progression and evolving deep tissue injuries.
- Early alert and triage for wound team assessment, treatment and documentation.
- We have saved 2,000 hours/year of non-patient-care nursing time.
- We now identify and track those multi-visit patients (MVP) (4 or more hospital admissions/year) and their characteristics.

Implications

Early identification, treatment, and documentation of community acquired deep tissue injuries and pressure ulcer/injuries, improves patient outcomes, decreases chances of litigation, and increases hospital re-imbursement.
Bedside nursing time saved (19.25 hours per week in emergency department alone) is redirected to patient care.
Identification of patients with chronic community acquired PU/I enables targeted population health management.

Conclusions & Further Study

In conclusion, we have created a work flow within EMR that tracks, audits, and improves efficiencies in nursing care, communication, and documentation.
Future studies and projects are planned for specific population needs i.e. wheelchair dependent patients, meeting the needs of patients with spinal cord injuries or neurological deficits.

References

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2. Kirkland-Khyn, H., Teleten, O., Joseph, R., & Maguina, P. (2019). A Descriptive Study of Hospital- and Community-acquired Pressure Ulcers/Injuries. Wound Manag Prev, 65(2), 14-19.

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