Boca Raton Regional Hospital
BAPTIST HEALTH SOUTH FLORIDA

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Too Many Wounds, Too Few Wound Care Nurses

Using Innovative Solutions to Fill the Gap
Elderly patients high risk for pressure injuries (bed sores)
High volume of wound care consults
65% Medicare population
2.5 FTE for inpatient wound care nurses

Only 29% of consults seen by wound care nurse
Wound experts focusing on increasing skills of the bedside nurse to offset the gap
Traditional Wound Photo Process

1. Take pictures with digital camera
2. Dock Camera
3. Print pics on inkjet printer
4. Wait & wait for them to print
5. Tape to paper mounting form
6. Store in chart

Store in chart → Dock Camera → Print pics on inkjet printer → Wait & wait for them to print → Tape to paper mounting form → Store in chart
Process cumbersome

Unstandardized printers from office supply store

Ink cartridges inventory impossible to manage

Ink jet printing slow (3-5 min/picture)

Nurses only photographed “significant” wounds due to time constraints

Example: 5 wounds
Hospitals are measured on outcomes like hospital-acquired pressure ulcer rates.

Wounds not documented on admission (even if present) are automatically credited as “hospital-acquired”.

Hospitals are not getting reimbursed for any hospital acquired wounds.

They are also penalized by CMS on our value-based purchasing score which influences reimbursement across the board.

Pressure ulcer rates ↑ due to poor documentation rather than poor clinical care.
What Did Clinicians Need?
Mobile App Development
Clinician Input

- Eliminate the printing process all together
- Instant accessibility to digital images from any device
- Barcode scanning to associate image to correct patient matching
- Ability to describe wound, size, & annotate wound images
Engaged a tech start up company eager to engage in healthcare.

Offered to be a beta site in developing a meaningful mobile app for wound image capture.

Take Away
Don’t be afraid to approach vendors with great clinician ideas. They just might build them!
Partnering with the Vendor

- Worked with the Vendor, Nursing, Clinical Informatics, & IS
- Idea to go-live ready in 6 months
Scan patient armband for patient matching & safety

Take wound image(s) using iPad.
(No printing required)

Document wound details & annotate image

Final document automatically transmitted to EHR
Development Considerations

Device selection
- Purchased iPad minis for each unit

Security
- No image/data stored on the device or the cloud
- Restricted the devices to a single app to prevent compromising PHI
- Required user name/password (associated to active directory for security)

Cold feed final document into EHR
Big Wins!

- Digital images averaged only 1 minute each (75% reduction)
- Cost for app development = $0
- Annualized savings on photo paper, ink cartridges, & new printers $5,000/ year
- Soft savings resulting from new efficiencies immeasurable!
Ideas are easy. Implementation is hard.

Guy Kawasaki
Nurse Adoption

- Easiest implementation ever!!
- Nurses LOVED the app
- So intuitive that nurses were training one another before Informatics could get there to do so
‘Give it to me straight, how long have you got?’
Circling Back to the Problem

2 FT & 1 PT wound care nurses

Seeing only 29% of all ordered consultations
New TeleWound Workflow

Step 1
MD placed consult in CPOE

Step 2
Bedside nurse takes digital wound images (using new app!)

Step 3
Instant availability of wound images to EHR for wound care specialist
- Reviews orders for severity
- Simple wounds managed virtually
- Compares image to treatment orders & clinicians documentation
- Modify treatment orders if needed
- Coaches bedside nurse on inaccurate wound assessments or photo quality concerns

- Identifies complex wound cases requiring advance assessment
- Physically goes to the bedside to consult in person & provide wound care
Reconfiguring the wound care office

- Added an extra computer
- Added 2nd monitors to each device
- Added extra phone lines to each desk
Outcomes
Significantly increase in wound care consults seen
Value Added

- Minimized legal risk of not executing the wound care consult as ordered
- Promoted better patient outcomes by having the specialist consistently involved
- Enhanced the competency of the bedside nurse through structured telemedicine collaboration of care

Increased efficiencies

- Better wound documentation
- Lower hospital-acquired wound rates
- More time for nurses to be at bedside
- No more blindly walking to units
- No more standing waiting for printers
- No more order ink/paper ordering
- No more broken printer/cameras
Why Is This So Innovative?

- This is not your mother’s telemedicine! It takes telemedicine to the next level.
  - Innovative use in a hospital setting where the wound care expert is onsite (rather than remote)
- 231% increase in productivity (29% to 96%)
- NO additional spending on software
  - Partnered with a start up company to develop an app with
- No additional FTEs
  - Controlled the cost of healthcare
  - Created a force multiplier taking existing FTE and making them more efficient.
- Transferable & sustainable.
  - This model can be adopted by any facility regardless of EHR

Most importantly, it improved patient care & made nurses happy!