Re-engineered Fall Prevention Practices During the Pandemic: The Evidence and Lived-Experiences

Eastern US Quality Improvement Collaborative (EQIC)

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September 8, 2021

Objectives

- Emerging evidence of the pandemic on patient safety and patient engagement, with special emphasis on falls.
- Leading practices to keep patients safe from falls at all times with multidisciplinary partners.
- Examples from Nurse Leaders of re-engineered fall prevention care practices, processes and environments to prepare for and manage the COVID-19 surge and isolation environment.

During COVID Surge, What We Experienced

- Clinical Practice strategies changes to Increase Workflow During Isolation
  - Patient and Staff Reaggregation
  - Redesign Staffing Systems
  - Emphasize Pre-Planned Patient Care Requirements
  - Expect the Unexpected

Expect the Unexpected

Room Confinement with Isolation

- Necessity and Burden of PPEs
- Patients Alone - worried about families
- Increase patient fear and apprehension
- Delayed Response to call lights and Rounding
- Patients Up on Their Own

Fast Tracked Use of Communication Systems: Patient – Family/Care Partners; Patient – Nursing / Interdisciplinary Team – Telehealth / Telesitter

We Learned

- Period of Great Change generated rapid development, redesign, and innovation
- Patients were alone
- Patient Safety Was Negatively Impacted
- Staff was stressed to unforeseen limits

Remember: The Flex Monitoring Team

- University of Minnesota
- University of North Carolina at Chapel Hill
- University of Southern Maine
- http://www.flexmonitoring.org

Evidence-based Falls Prevention in Critical Access Hospitals

Most falls commonly occur as a result of:

- Medication-related issues
- Toileting needs
- Hospital environmental conditions

- Pearson, K.B., & Coburn, A.F. (2011, Dec.), Policy brief. Evidence-based fall prevention in critical access hospitals, Office of Rural Health (PHS Grant No. U27RH01080).

Just Published: Patient Engagement and Visitation

- The influence of COVID-19 visitation restrictions on patient experience and safety outcomes: A critical role for subjective advocates

- Silvera, G., Wolf, J., Stanowski, A., & Studer, Q. (2021). Patient Experience Journal, 8(1):30-39

Goals

- To examine the degree to which performances in patient experience outcomes (as reported via the Hospital Consumer Assessment of Healthcare Providers and Systems [HCAHPS] survey) and patient safety (via AHRQ patient safety indicators) were influenced by the COVID pandemic.
- Examine the degree to which any changes in performance, 2019 to 2020, in patient care quality outcomes are associated with changes to hospital visitation policies.

Purpose: Examine

- The degree to which hospital visitation restrictions in U.S. hospitals during the COVID-19 pandemic help to explain changes in patient experience and patient safety outcomes.
- The relationship of hospital visitation decisions on patient experience and safety outcomes of a national sample of hospitals (n=32) during the pandemic is compared to previous corresponding performance.

Measures Collected

HCAHPS Domain Measures

- Overall Rating of Hospital
- Responsiveness of Hospital Staff
- Communication with Nurses
- Communication with Doctors

PSI Composite Measures

- Pressure Ulcer Rate (PSI 3)
- In-Hospital Fall with Hip Fracture Rate (PSI 8)
- Postoperative Sepsis Rate (PSI 13)

At Baseline, 2019

- Performance reported around AHRQ Benchmark Data released in 2020, which is based on 2017 data
- Scores for HCAHPS survey, the sample was at or above the reported 50th percentile score, except for responsiveness domain
- Outperformed the benchmarks in three measures explored in 2019: decrease in pressure ulcer rates; slight increase in sepsis rates (but still reporting under the benchmark), increase in fall rates with hip fractures

Impact of Visitation: Open/Limited Visitation to No Visitation Allowed

- Of the 32-facility sample, they reported no visitor status for 127 of the 384 reported months in 2020

  (no visitor restriction in 2019)
- The trend when these restrictions were implemented mirrored the COVID 19 surges: March and April, with return to initial 2020 numbers in Aug. and Sept., and second surge at the end of the year.
- At the high point of the crisis, 90% of all facilities had no visitation policy

HCAHPS Differences 2019 - 2020

- HCAHPS scores slightly impacted in most domains
- Domains of Responsiveness: 2 point reduction
- Care Transition: 1.2 point reduction, but remained above the 50th percentile rank

Visitation

- Most changes were not substantive, but were for responsiveness
- Responsiveness dropped almost 3 times over care transitions

Most Significant Impact of no visitation on both Falls and Sepsis Rates

Falls

- AHRQ Benchmark (July 2020): 0.07
- Open Visitation 2019: 0.03
- Open/Limited Visitation 2020: 0.07
- No Visitation 2020: 0.14
- Net Difference: 0.07 – 104%

Most Significant Impact of no visitation on both Falls and Sepsis Rates

Sepsis

- AHRQ Benchmark (July 2020): 3.97
- Open Visitation 2019: 2.93
- Open/Limited Visitation 2020: 2.65
- No Visitation 2020: 5.39
- Net Difference: 2.74 – 104%

Story through the opportunity from a natural experience – the pandemic

- Findings confirm that family members or care partners was an important part of the care process
- The impact of the restrictions is now clear: presence of a family member or care partner **matters**
- The overall impact on HCAHPS domain scores was much less that on the reported safety outcomes

Summary

- Patient Experience and Patient Safety Suffered
- Prior studies revealed presence of family members or care partners had limited negative impacts and were a positive influence on outcomes
- The difficult decisions of hospital executives to limit visitation in the face of a new or unknown virus had consequences

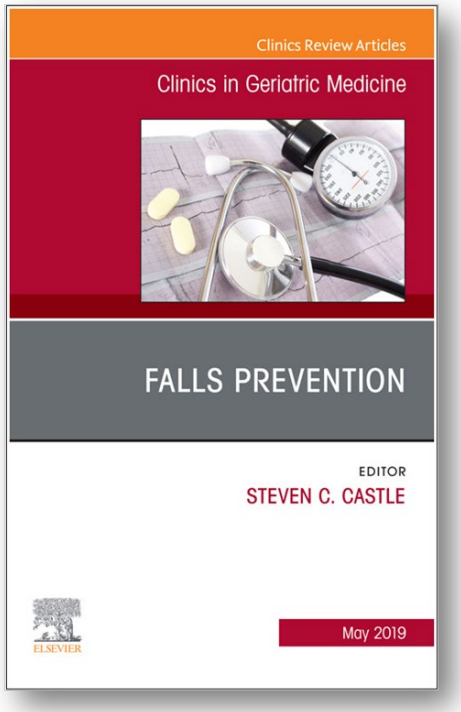
Discussion

- The impact of no visitation on HCAHPS domain scores was much less than on reported safety outcomes, but with greatest changes on responsiveness of staff (perhaps toileting and response to call light [alone and waiting]) and care transitions
- The presences of a "subjective advocate" could be seen as potentially influential
- Increase fall rates, people attempted to do things on their own that they might not have done otherwise

Having Someone Present Matters

- Even having some limited visitation was a positive for patient safety, when no visitation was allowed, things just simply got worse.
- The policy to allow for visitors, or subjective advocates, individuals with a vested interest in the well-being of the patient, is beneficial not only for the patient, but also in sustaining high quality of care.
- Decisions to restrict visitation should be made with great care and in only the most extreme circumstances.

Aggregated data creates new knowledge



Quigley, P., Votruba, L., & Kaminski, J. (2019). Outcomes of patient engaged video surveillance on falls and other adverse events. Clinics in Geriatric Medicine, 35(2):253-263.

Clinics of Geriatric Medicine (n=15,021)

- Overall fall rate on camera was 1.5/1000 patient days
- Fall rate for 85+ was 0.38/1000 patient days
- Average stat alarm response time was **15.8** seconds

COVID-19 patients (n=1,625)

- Overall fall rate on camera was 2.18/1000 patient days
- Average stat alarm response time was **34.5** seconds

THE VIDEO MONITOR STAFF

- A new and crucial member of the care team
- Importance of their training
- Importance of a good hand-off report from the RN
- The tools they have to keep patients safe
  - Verbal redirection
  - Call caregiver
  - Stat Alarm

Jack was the winner of his hospital's Patient Care Technician/Unit Clerk Excellence Award for going above and beyond.

Who was protected?

Age	18-64	65-84	85+	Total
Number of patients	5,173	6,393	3,455	15,021
Hours	359,584	395,392	187,506	942,482
Number of patient days	14,983	16,475	7,813	39,270
Length of surveillance hours/days	69.5/2.9	61.8/2.5	54.3/2.3	62.7/2.6

June 1, 2017 - May 31, 2018
n = 71 hospitals
PEVS: Patient Engaged Video Surveillance

Quigley, P.A., Votruba, L.J., & Kaminski (2019) Outcomes of patient engaged video surveillance on falls and other adverse events. *Clinics in Geriatric Medicine.*

Adverse Events by Age Group

Table 3: Monitoring Staff Reported Adverse Events

Age	18-64	65-84	85+	Total
Total Falls	34	22	3	59
Unassisted Falls	26	16	2	44
Assisted Falls	8	6	1	15
Elopements (from patient room)	14	7	6	27
Line, Tube or Drains Dislodged	40	48	18	106

June 1, 2017 - May 31, 2018
n = 71 hospitals

Falls and other adverse events

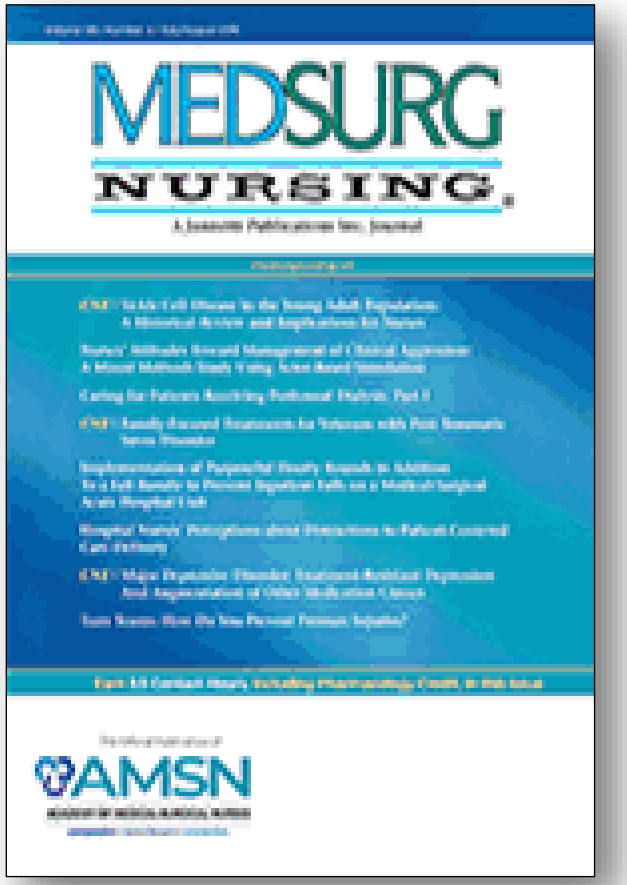
Table 4: Adverse Event Rates per 1,000 Days of Surveillance

Age	18-64	65-84	85+	Total
Total Falls per 1,000 Days of Surveillance	2.27	1.34	0.38	1.50
Assisted Falls per 1,000 Days of Surveillance	0.53	0.36	0.13	0.38
Unassisted Falls per 1,000 Days of Surveillance	1.74	0.97	0.26	1.12
Elopements (from patient room) per 1,000 Days of Surveillance	0.93	0.42	0.77	0.69
Line, Tube or Drains Dislodged per 1,000 Days of Surveillance	2.67	2.91	2.30	2.70

June 1, 2017 - May 31, 2018
n = 71 hospitals

Quigley, P.A., Votruba, L.J., & Kaminski (2019) Outcomes of patient engaged video surveillance on falls and other adverse events. *Clinics in Geriatric Medicine.*

PEVS FOR COVID-19



Quigley, P., Votruba, L., Kaminski, J. (2021). Registered nurses, patient engaged video surveillance, and COVID-19 patient outcomes. MEDSURG Nursing. *Mar/Apr*

SAMPLE SIZE:

+ 97 hospitals
+ 2 months - March & April 2020
+ 1,625 patients

Engagement by Age Group

Patient Age	Number of patients with a documented age	Average LOS (hours) on PEVS
<20	5	17.4
20-29	19	33.4
30-39	29	39.0
40-49	75	47.5
50-59	168	44.2
60-69	214	76.8
70-79	262	69.1
80-89	257	74.4
90+	97	66.2
Total	1,126	64.7

Verbal engagement was impacted by both age and COVID status

80-89 had the highest number of verbal engagement

Increased age = Increased engagement

- Non-COVID >60 had 57% of verbal interactions
- COVID >60 had 65.8% of verbal interventions

PEVS OUTCOMES INFLUENCED BY ISOLATION

	Pre-COVID[1]	COVID/PUI patients[2]
Falls per 1000 monitored pt days	**1.5**	**2.18**
Dislodgements per 1000 monitored pt days	**2.7**	**7.04**
Response time in seconds	**15.8**	**34.5**
Verbal interactions per patient day	**15.8**	**17**

1. Quigley, P., Votruba, L., & Kaminski, J. (2019). Outcomes of patient engaged video surveillance on falls and other adverse events. Clinics in Geriatric Medicine, 35(2):253-263

2. Quigley, P., Votruba, L., Kaminski, J. (2021). Registered nurses, patient engaged video surveillance, and COVID-19 patient outcomes. MEDSURG Nursing. In press for Mar/Apr

COVID ADVERSE EVENTS

A total of 42 total adverse event were experienced by 39 patients:

+ 29 Dislodgements
+ 9 Falls
+ 2 Intentional self-harm
+ 2 Physical abuse events

99.4% of patients did NOT FALL

The Cottage Hospital Experience

- Cottage Health CAH, an award-winning organization, braced, realigned, and emerged from the pandemic while always keeping their pulse on patients' safety, quality, and outcomes – *Keeping Patients Safe At All Times.*

Together We Learn To Improve Healthcare for All

- Keeping Patients Safe at All Times
- Increasing opportunities for everyone to live the healthiest life possible, no matter who we are, where we live, or how much money we make
- Everyone feels safe, valued and included as partners in healthcare

Thank You and Please Share More!

- Your Questions and Comments

You Can Always Reach me!

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