

# Geriatric Emergency Department: RN screening and intervention to improve care for older adults at 10 legacy Aurora sites

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## Background

- Older adults are a rapidly growing population that have unique & complex presentations in the ED. (Perry, 2018)
- In 2018, 14 Aurora EDs had 403,434 ED visits, of which 97,556 (24%) were ≥65
- The unique needs of older adults challenge traditional ED paradigms (Melady, 2018).
- About 21% are at risk for adverse health event in the following month. 10% return to the ED, 11% are hospitalized, 1.4% go to a SNF, and 2% die.
- ED nurses are challenged with deficits in training, screening & assessments tools, ED workflow, and resources to effectively and safely care for older adults (Wolf, 2019)
- The Geri ED an interprofessional program that identifies high risk elder patients and establishes a network of referrals and care throughout the system to enhance population health and create significant cost reductions by decreasing ED & hospital utilization.

## Objective

- Population: ≥65 year old community dwelling, presenting to ED and discharged to home at Aurora Sheboygan Memorial Med Center.
- Intervention: ISAR screen by RN, referral to RN CM, patient completed referral .
- Comparison: ≥65 year old, ISAR score ≥2 with completed RN CM referral compared to those who did complete referral
- Outcome: 72hrs ED & 30day ED revisits
- Time: Jan-June 2017

## Approach

- Implement Geri ED guidelines (2014) into clinical practice at 3 sites December 2014.
- Interprofessional team approach to continuous improvement (IHI model)
- Focus on workforce development: education, workflow, standardized practice
- Leverage Technology: documentation and reporting infrastructure to support process and outcomes measurement
- Achieve Geriatric ED Accreditation (1<sup>st</sup> national cohort, May 2018)

## Synthesis of Evidence

- Older adults account for a disproportionate number of potentially avoidable patient hospital admissions from the ED at 46%. (Stranges, 2010)
- 2018 Older adults had an admission rate of 44% vs 25% for all adults (14 Aurora ED sites)
- Approximately one out of every 10 hospital admissions is potentially avoidable, and the majority (60%) of those admissions are for patients ≥65
- Focus on patients seen in ED but discharged to home to change patient's health trajectory.
- Population Health: Partner with Aurora ACO MSSP3

## Practice Change

- RN screen all ≥65 patients in ED with ISAR tool
- New EPIC documentation and data reporting
- RN coordinates with Provider
- RN CM coordinates post-ED services (PCP, Homecare, Community, Follow up calls, etc)
- Geri ED team reviews process and outcome to continuously improve workflow.
- Discipline specific and team education (bi-annual Booster sessions)
- Development of new clinical protocols with system standardized approach.
- Measures: ED revisits, Patient Satisfaction, Hospital admission rates, Cost savings
- Start January 2015, new sites 2016, 2017, 2019

## Methodology

- Data from ASMMC ED for Jan- June 2017.
- Intervention patient group (n=149)
  - ≥65 years of age
  - ≥2 ISAR score
  - Completed a referral from the ED CM
- A matched Control group (n=149) was generated
  - Matched ISAR score distribution, age, and gender.
  - Did not complete a referral.
- Outcome variables that were evaluated were:
  - Return to an ED within 72 hours any site.
  - Return to an ED within 30 days any site.

## Methodology (continued)

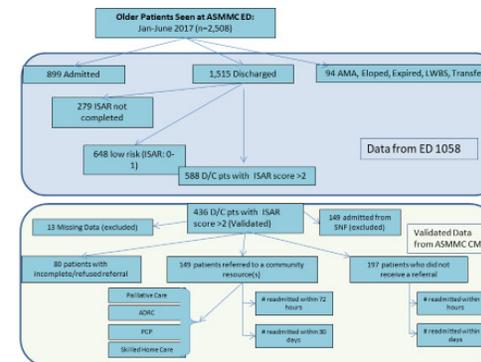


Figure 2. Description of patient population during study period

## Results

- The ED patients at risk who had an ED Case Manager completed RN CM referral had fewer return ED visits within a 30 day time frame (30 vs 49 revisits, 20% vs 33% = 49% reduction or 13% absolute risk reduction in 30day ED revisits).
- The results are suggestive but not conclusive with respect to a return to the ED within a 72 hour time frame.

Comparison of Experimental Group and Control Group on: Return to ED Within 30 Days

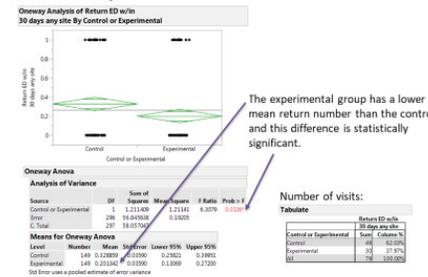


Figure 2. Comparison of Intervention Group and Control group on ED revisit within 30 days.

## Outcomes

- Intervention group had 19 fewer ED visits within 30 days (30 vs 49).
- Resulting in \$38,000 savings for 149 patients.
  - 19 x \$2,000 allowed cost per ED visit
  - \$76,000 annualized savings.
- The multi-component RN-MD-CM intervention and standardized system approach highlights the effect of collaboration on workflow and processes
- Manifestation of cultural changes in RN & MD awareness, skills, & teamwork in identifying and treating vulnerable older adults.
- Manual tracking of intervention vs control group, require IT solutions to automate and increase productivity.
- Limitation include study at a single Geri ED site and patient bias in completing RN CM referrals.

## Implications for Practice

- The Geri ED RN CM intervention results in a significant improvement for older adults and reduces cost to the system.
- Due to a standardized program between all 10 sites, potential cost savings could be much larger.
- Additional study to understand the effect on hospital admission rate.
- Vision to have Accredited Geri ED as standard of care in all 26 AAH EDs due to proven scalability and outcomes.
- Partnership with ACO and Population Health provides additional opportunities to coordinate care beyond ED into PCP, homecare, & community.
- Continuous improvement leading to development of new clinical protocols (Falls, Palliative Care, Delirium, Urinary Cath)

## References

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## Acknowledgements

Lisa Entringer, Dr. Malone, Ann Gallo, Patti Pagel, Stephanie Steger, Geri ED Collaborative, and Stan Kritzkaz Fund