

# JOURNAL OF GERIATRIC EMERGENCY MEDICINE

Fall 2022 | Volume 3 | Issue 3

Article 1 | Collective Wisdom: Editorial

**JGEM** | The Journal of Geriatric  
Emergency Medicine



## Research to Accelerate Practice Change in Geriatric Emergency Medicine

*S. Nicole (Nicki) Hastings, M.D., M.H.S.*

I am a geriatrician and a health services researcher. When I use the term, health services researcher, I mean it in the broadest sense. I study the organization and delivery of health care, specifically acute care, including emergency services for older adults. And so, I would like to start by telling you a little bit about how I found my way to this field as a geriatrician. There are so many clinical innovations happening now that are bringing geriatricians and emergency physicians together to collaborate, but there weren't that many opportunities to learn and practice side-by-side when I first got interested in this work.

So how did it happen? When I was at Stanford in the early 2000s, there were moonlighting opportunities in the Palo Alto VA emergency department. During my year as Chief Resident, I was working in the emergency department, rounding as an attending physician in the hospital, and also seeing patients in the outpatient clinic. This was truly a transformative experience for me. It gave me direct insight into what our patients are facing when they are receiving care across many different settings. It certainly got rid of any notion I might have had that if a person did not need to be admitted from the emergency department, there wasn't much going on in terms of their management. Finally, it helped me to reject any overly simplistic ideas about how care could or should be improved in the emergency department, and instead increased my appreciation for complexity within and between different healthcare settings.

When I decided to move into health services research during my geriatrics fellowship, Dr. Mitch Heflin, was one of my mentors. He suggested that if I wanted to follow this clinical interest in emergency care of older adults into the research realm, I would need to ground myself in the literature. Of course, he was right about that. In 2005, I wrote a paper examining the current literature in geriatric emergency medicine.<sup>1</sup> This was just a few years after the American Geriatrics Society and John A. Hartford Foundation had convened a group and first outlined what a research agenda should be in this area.<sup>2</sup> In this literature review, we looked specifically at interventions to improve outcomes for older adults discharged from the emergency department. Essentially what we found is that there were a lot of descriptive papers out there. It was clear that people were thinking about this and trying new things, but there were very few controlled studies.

Fast forward to 2019, and I was again part of a systematic review team that was evaluating the available evidence in geriatric emergency medicine.<sup>3</sup> The key question of this review was "How effective are emergency department interventions in improving outcomes in older adults?" The question was similar to the previous review except that we didn't focus exclusively on discharged patients. The takeaway is that in this 2019 review, we found nine randomized controlled trials that studied interventions such as discharge planning, case management, or medication management. There were small positive intervention effects on functional status, but there were no consistent effects on quality of life, patient experience, or utilization outcomes. I would suggest to you that nine randomized controlled trials are vastly disproportionate to the number of important questions we need to answer to improve emergency care for older adults and their families. We can learn more and change care faster with more research. Research is only one tool, of course. There is fantastic innovation going on in geriatric emergency clinical care and education. Given that my perspective is health services research, that is what I'm going to focus on and what I want to think about with you all today is "What we should be

doing collectively to increase research to accelerate the practice change that we all want to see in geriatric emergency medicine.”

I have five points (see **Table 1**) that I want to suggest that can help us in this area of accelerating the practice change that we want to see using research.

<b>Table 1: Tips for Researchers to Accelerate Practice Change in Geriatric Emergency Medicine</b>
1. Study the problems that bother you.
2. Diverse perspectives are required.
3. High-quality studies always inform, no matter the results.
4. Spend more time on measure selection.
5. Focus on the “how-to” of practice change through the implementation science.

The first point is for new investigators to think very carefully about what to study. What keeps you up at night? Which cases stick with you? Is this to say that the patient’s agenda is not central? Absolutely not. Or that the literature can’t guide you? Again, no. The point is, it is often underappreciated how important it is that researchers are able to really work deeply on the problems that drive them. When choosing areas to research at any point in one’s career, go toward what really bothers you. Devote your time and energy to topics that matter to you. For me, that’s been around medication safety and care transitions. There will be challenges in launching and sustaining a research career and they are easier to overcome when you are doing research you are passionate about.

Second, diverse perspectives are required, to conduct the creative and innovative research needed to change practice in real and important ways. I mean this in about every way that you can think about diversity. I certainly mean diversity in terms of different provider types: emergency medicine physicians, geriatricians, physical therapists, pharmacists, and social workers, all bring a critically important clinical perspective. Further, in regard to research, social scientists, health economists, and other types of methodologists are essential to bring in. Researchers with diverse life experiences, and the voices of patients and families themselves, are vital to make sure that we are asking the right research questions to change practice.

Third, I would submit to you that high-quality studies always inform us, no matter the results. There is a lot that we can and should learn from these studies, even if they did not achieve the kind of outcomes that we were looking for right out of the gate. I will give you an example of this from my own work. Several years ago, my team and I conducted a randomized controlled trial of a care transitions intervention (CTI) for older adults discharged from the emergency department who were at high risk of return.<sup>4</sup> It was a care transition intervention that we modeled after Eric Coleman’s successful CTI post-hospitalization that I am sure many of you are familiar with.<sup>5</sup> We enrolled about 500 patients and followed them for 30 days. We found that the CTI had no effect on the likelihood of returning to the emergency department, which was the primary outcome. Patients randomized to the intervention group were more likely to go to primary care, and they were more likely to go to certain types of disease management clinics, but there was no change in repeat ED visits. The fact that we delivered the intervention with high fidelity and had complete data on more than 95% of participants made it a high-quality study and gave us a lot of confidence in our finding which was a null effect on the primary outcome. However, a null effect doesn’t mean nothing was learned. In fact, I think we have a responsibility to look well beyond the primary outcomes of studies to learn as much as we can about where we should invest time and energy moving forward. One important point gleaned from this trial was the high prevalence of psychological distress among patients who were in the study. Patients enrolled in the study were all in the ED for a medical reason and yet they often expressed poor mental health and social stressors that were complicating their medical care. I know that is not a surprise to those who have taken care of patients in this environment, but the CTI that we tested was medically oriented. A key takeaway from the study was that an exclusive focus on medical support and coordination was not sufficiently responsive to what our patients needed, and this is a critical insight to carry forward in future work.

The fourth essential thing we need to focus on in geriatric emergency care research is measure selection. In the trial I mentioned earlier, the primary outcome was repeated ED visits. This is the most common outcome that research studies have used to judge the success or lack of success of various interventions, particularly around care transitions involving the ED. Utilization is important to patients. It’s important to health systems. But this measure is probably not giving us a sufficiently comprehensive view of what these new clinical programs or interventions are or are not achieving. So, in research, we need to really take a page from the Hartford and Institute for Healthcare Improvement Age-Friendly Health

Systems 4M's and think carefully about "What Matters". We need to think about that not only clinically when we are designing our programs, but from an evaluation perspective also. In order to truly understand the impact, we must ensure that our research measures "What Matters" to older patients and their families.

The last idea that I will leave you with is that we must think carefully about the questions that need to be answered and the right methods that should be brought to bear to answer them. Particularly, we need to ask, "Is the question what to do or is the question how to do it?" If the question of highest relevance is how to support emergency care providers or departments or community organizations or outpatient providers, whatever the case may be, to do more of the things that we know are important for older patients, then we need to look to implementation science. Principles and methods of implementation science can be used to think about how we solve complex problems for older persons in and beyond the ED. We need to see growth in implementation research studies in order to accelerate the practice change that we would all like to achieve in geriatric emergency medicine.

## KEYWORDS

Geriatric emergency department, implementation science, innovation, systems-based practice change

## AFFILIATIONS

S. Nicole (Nicki) Hastings, M.D., M.H.S.	Duke University School of Medicine, ADAPT HSR&D Center of Innovation, Durham VA Health Care System
--	--

## CORRESPONDING AUTHOR

S. Nicole (Nicki) Hastings, M.D., M.H.S.  
Duke Box 3003, Durham, NC 27710  
919.286.6936  
[Susan.hastings@duke.edu](mailto:Susan.hastings@duke.edu)

## ACKNOWLEDGMENTS

*This manuscript is the Keynote Address for the First American Geriatrics Society Geriatric Emergency Department Special Interest Group.*

The views expressed are those of the author and do not necessarily represent the views of the Department of Veterans Affairs or Duke University.

**Sponsor Role:** There were no sponsors for this work.

**Funding:** There was no funding for this work.

## CONFLICTS OF INTEREST

The author has no conflicts to report.

## REFERENCES

1. Hastings SN, Heflin MT. A systematic review of interventions to improve outcomes for elders discharged from the emergency department. *Acad Emerg Med.* 2005 Oct;12(10):978-86. doi: 10.1197/j.aem.2005.05.032.
2. Wilber ST, Gerson LW. A research agenda for geriatric emergency medicine. *Acad Emerg Med.* 2003 Mar;10(3):251-60. doi: 10.1111/j.1553-2712.2003.tb01999.x. PMID: 12615591.
3. Hughes J, Freiermuth CE, Shepherd- Banigan M, et al. Emergency department interventions for older adults. *J Amer Geriatr Soc* 2019; 67(7): 1516-1525. doi: 10.1111/jgs.15854
4. Hastings SN, Stechuchak KM, Coffman CJ, Mahanna EP, Weinberger M, Van Houtven CH, Schmader KE, Hendrix CC, Kessler C, Hughes JM, Ramos K, Wieland GD, Weiner M, Robinson K, Oddone E. Discharge Information and Support for Patients Discharged from the Emergency Department: Results from a Randomized Controlled Trial. *J Gen Intern Med.* 2020 Jan;35(1):79-86. doi: 10.1007/s11606-019-05319-6. Epub 2019 Sep 5. PMID: 31489559; PMCID: PMC6957582.
5. Coleman EA, Parry C, Chalmers S, Min SJ. The care transitions intervention: results of a randomized controlled trial. *Arch Intern Med.* 2006 Sep 25;166(17):1822-8. doi: 10.1001/archinte.166.17.1822. PMID: 17000937.