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Simple Solutions may not work for Complex Patients: A Need for New Paradigms in Geriatric Hospital Medicine

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Editorial

The presence of hospitalists has been a major change in acute care in recent decades. The demographics of hospitalized patients also have changed, with a substantial increase in the proportion of patients aged 65 years and older to almost 50%. Older hospitalized patients represent a medically complex population with multiple chronic conditions, including cognitive impairment.¹ It is noteworthy that, in many US hospitals, the majority of older patients are now cared for by hospitalists without subspecialty training in geriatric medicine.² The convergence of these changes has led us to ask important questions about the best approach to caring for the growing population of hospitalized older patients.

The care of older hospitalized patients poses unique challenges both during and following a hospitalization event. This patient population tends to have multiple chronic conditions coupled with frequent healthcare utilization, or transitions in care (e.g., hospital to post-acute care). In addition, geriatric syndromes are common among this group and may include: delirium, dementia, depression, functional impairment, falls, incontinence, pain, polypharmacy, and unintentional weight loss. It is also common for multiple geriatric syndromes to co-occur (e.g., falls and incontinence). The presence of one or more geriatric syndromes may complicate patient care and additionally impact outcomes, including hospitalization and mortality.^{3,4} An interdisciplinary geriatric team specifically diagnoses and treats these syndromes within the context of other presenting illnesses and comorbidities. Thus, a logical hypothesis would be that specialized geriatric consultation would improve outcomes of older hospitalized patients.

The study by Nazir et al. in this issue of the *Journal of Hospital Medicine* explores this hypothesis, but generates more questions than answers. Briefly, the study examines a cohort of older hospitalized patients with cognitive impairment (CI). The authors compare re-hospitalization and mortality outcomes between 176 patients who received a geriatric consultation service (GCS) and 239 patients who received usual hospital care. Although the intervention group differed from the usual care group in meaningful ways outside of the intervention, the investigators did due diligence to adjust for these differences in their

analysis. After adjustment, 30-day and 1-year mortality outcomes were comparable between groups, and the hazard for 30-day readmissions was higher for the GCS group.

These findings stood contrary to the authors' hypothesis and what many would expect with sub-specialty involvement during hospitalization. As the authors point out, however, we should interpret these findings cautiously due to a number of factors that may contribute to the seemingly limited effect of GCS in this study. First, it is important to note that this study occurred between 2006 and 2008. The emphasis on hospital readmissions as an important clinical outcome was increasing, although it had not reached the level that followed the 2009 publication by Jencks et al.⁵. This emphasis further intensified following the inclusion of the Hospital Readmissions Reduction Program (HRRP) as part of the Affordable Care Act.⁶ Thus, the implementation of the GCS in this university-affiliated hospital may have reflected this "pre-HRRP" period. For example, the team-based rounds occurred only at the time of the initial consult. If a similar GCS were designed today in the "post-HRRP" period, one could imagine more intense team-based involvement occurring throughout the hospital stay, in particular near the time of discharge. In addition, recent studies underscore the importance of supporting transitions in care for older adults, who are often in need of post-acute care, home health, and other services following hospitalization.⁷ As noted by Nazir and colleagues, other interventions that have shown an impact on 30-day readmissions were "multifaceted and included personnel that provide bridging between the hospital and outpatient setting". The authors also mentioned that a future component of preventing hospital readmissions was a stronger emphasis on Advanced Care Planning (ACP) discussions both during and following hospitalization. Neither of these key elements (e.g., care transition personnel or proactive ACP discussions) was part of the GCS model evaluated in this study. Thus, it is unknown to what extent the higher 30-day readmissions that occurred for the GCS group were consistent with patient/family goals of care. It is also unknown to what extent these readmissions were potentially unavoidable.

Perhaps even more importantly, this study is a reminder of the difference between efficacy and effectiveness; that is, does geriatric consultation work (efficacy) versus does a GCS as implemented at this specific hospital work (effectiveness). The latter reflects not only aspects of what a geriatric interdisciplinary team may diagnose and recommend, but includes how patients are identified for consultation (referral process), the environment in which the consultation occurs (care coordination on unit or among team), and the fidelity to GCS recommendations. Without reported measures, it is unclear to what extent GCS achieved better recognition and treatment of geriatric syndromes, a reduction in polypharmacy, and optimal discharge planning. Theoretically, it is through the robust implementation of these components that better clinical outcomes would result. Even with a high degree of intervention implementation, 12-month outcomes may be too far removed from the GCS intervention, especially for older patients with CI who are at high risk for decline.

Unfortunately, geriatric syndromes often go unrecognized with high rates of polypharmacy at hospital discharge⁸ and more than 50% of inpatients with unrecognized dementia,⁹ delirium,¹⁰ depression¹¹ and nutritional risk¹². Thus, our need for hospital geriatric care and expertise is greater than ever. This study highlights many of the challenges of the traditional

consultative model of care and a need for innovative approaches to recognize and treat geriatric syndromes. It is likely that, given the complex nature of geriatric patients, efficacious consultative models will need to address multiple chronic conditions and extend beyond the hospital discharge period. However, based on available evidence, it is currently unclear what specific interventions are efficacious and what type of geriatric consultative model is required. No matter the method, hospitalists must recognize the unique challenges of this population and work to ensure safe hospitalization and care transitions.

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References

1. Wier, L.; Pfuntner, A.; Steiner, C. HCUP Statistical Brief #103. Rockville, MD: Agency for Healthcare Research and Quality (AHRQ); 2010. Hospital Utilization among Oldest Adults, 2008; p. 1-11.<http://www.hcup-us.ahrq.gov/reports/statbriefs/sb103.pdf>
2. Kuo Y-F, Sharma G, Freeman JL, Goodwin JS. Growth in the care of older patients by hospitalists in the United States. *N Engl J Med*. 2009; 360(11):1102-1112.10.1056/NEJMsa0802381 [PubMed: 19279342]
3. Wang S-Y, Shamliyan TA, Talley KMC, Ramakrishnan R, Kane RL. Not just specific diseases: Systematic review of the association of geriatric syndromes with hospitalization or nursing home admission. *Arch Gerontol Geriatr*. 2013; 57(1):16-26.10.1016/j.archger.2013.03.007 [PubMed: 23578847]
4. Kane RL, Shamliyan T, Talley K, Pacala J. The association between geriatric syndromes and survival. *J Am Geriatr Soc*. 2012; 60(5):896-904.10.1111/j.1532-5415.2012.03942.x [PubMed: 22568483]
5. Jencks SF, Williams MV, Coleman EA. Rehospitalizations among patients in the Medicare fee-for-service program. *N Engl J Med*. 2009; 360(14):1418-1428.10.1056/NEJMsa0803563 [PubMed: 19339721]
6. Hospital Readmissions Reduction Program. 2010. Patient Protection and Affordable Care Act of 2010. Pub L No. 111-148, 124 Stat 408, S3025.
7. Verhaegh KJ, MacNeil-Vroomen JL, Eslami S, Geerlings SE, de Rooij SE, Buurman BM. Transitional care interventions prevent hospital readmissions for adults with chronic illnesses. *Health Aff (Millwood)*. 2014; 33(9):1531-1539.10.1377/hlthaff.2014.0160 [PubMed: 25201657]
8. Rohrer JE, Garrison G, Oberhelman SA, Meunier MR. Epidemiology of polypharmacy among family medicine patients at hospital discharge. *J Prim Care Community Health*. 2013; 4(2):101-105.10.1177/2150131912472905 [PubMed: 23799716]
9. Boustani M, Baker MS, Campbell N, et al. Impact and recognition of cognitive impairment among hospitalized elders. *J Hosp Med*. 2010; 5(2):69-75.10.1002/jhm.589 [PubMed: 20104623]
10. Collins N, Blanchard MR, Tookman A, Sampson EL. Detection of delirium in the acute hospital. *Age Ageing*. 2010; 39(1):131-135. [PubMed: 19917632]
11. Cepoiu M, McCusker J, Cole MG, Sewitch M, Ciampi A. Recognition of Depression in Older Medical Inpatients. *J Gen Intern Med*. 2007; 22(5):559-564.10.1007/s11606-006-0085-0 [PubMed: 17443361]
12. Buys DR, Roth DL, Ritchie CS, et al. Nutritional risk and body mass index predict hospitalization, nursing home admissions, and mortality in community-dwelling older adults: Results from the UAB Study of Aging with 8.5 years of follow-up. *J Gerontol A Biol Sci Med Sci*. 2014; 69(9): 1146-1153.10.1093/gerona/glu024 [PubMed: 24589863]