

Midwest Geriatrics – Palliative Fellowships Consortium

GERIATRICS TWITTER JOURNAL CLUB

#GeriJC

Hospital-at-Home Interventions vs. In-Hospital Stay for Patients with Chronic Disease Who Present to the Emergency Department

September 2021

Dr. Phanindra Antharam, Geriatrics Fellow from University of North Dakota leads discussion on this study (see video)

T1. What are the most interesting aspects of the paper?

@GeriEducator: Hospital-At-Home interventions reduce costs and improve outcomes and are more aligned with patients with chronic conditions #GeriJC

@NDgeriDocDahl: Increased patient satisfaction! #GeriJC

@PellecerSanchez: It looks like it is a low intervention based on the fact that mortality did not varied #GeriJC

@LaurenMCarlson: It's fascinating to see the differences in who is involved across the varied HaH interventions – ranging from a focused team of a nurse and respiratory therapist to a team of up to ten different providers. Different ways to practice medicine! #GeriJC

@KahliGoBlue: Agreed! It's too bad the numbers were insufficient to allow a posthoc analysis based on the makeup of provider teams (beyond direct involvement of physicians). I'd imagine including PT/OT/RT improves outcomes #GeriJC

@Daniela56730371: Mortality is the same in both settings, so hospital-at-home is safe. Which showed to be more stressful to caregiver in the beginning, but it decreased as time passed by. Smaller readmission to hospital and admission to skilled nursing home is also very encouraging. #GeriJC

@curcumin: Selection bias? People who agree to be treated at home may be less inclined to go to SNFs

@Daniela56730371: Stress levels also decreased for care-giver as time passed by in the Hospital-at-home, but the transfer of costs to the patient that might happen in this setting couldn't be assessed. In the long run, that maybe a problem for patients with chronic disease #GeriJC

@CourtneyUhlar: Lower rates of readmission is encouraging! I wonder if it may have to do with of the longer length of stay at HaH. Maybe the length of stay is longer because of less pressure to discharge patients early in a HaH program. #GeriJC

@Daniela56730371: The many ways that hospital at home has been deployed is interesting, and its reassuring that it hasn't been dangerous in terms of mortality or readmissions in any of its incarnations.

T2. Were the analytical approaches used in the study appropriate?

@GeriEducator: Yes. Our stats expert says the Meta-analysis, sensitivity analyses and study bias analysis were all appropriate. #GeriJC

@GeriEducator: BUT. Meta analyses should have enough articles (usually 20) so that when broken into groups, there are still at least 8-10 articles being analyzed. Authors had the right idea but did not enough articles, so a potential for bias in the I-square homogeneity statistic #GeriJC

@ElizCha06134239: Generally, they did the best they could to limit heterogeneity, but there was still a substantial amount. The pooled analysis has to be taken with a grain of salt as a result. #GeriJC

@BERosensteinMD: A2) Good approach to eliminate heterogeneity by specifying specific outcome measures, but this limited what articles met inclusion and limited data available and some the conclusions that can be drawn. But overall, strong methods. #GeriJC

T3. Does the study add new knowledge to established foundations?

@NDgeriDocDahl: It gives support to making changes in our health care system to accommodate for this model of care #GeriJC

@PellecerSanchez: The fact that outcomes did not change in models with physicians vs models with nurses only, indicate potential for saving costs and increase accessibility #GeriJC

@KahliGoBlue: I found this so interesting! As a hospitalist, I can't imagine overseeing care for a patient I haven't seen myself but it's reassuring outcomes didn't seem to change (other than possible signal towards lower readmission rates w/ physician involvement) #GeriJC

@PellecerSanchez: I would image physician involvement was achieved through IDT meetings or some degree of supervision #GeriJC

@KahliGoBlue: A lot of face time and texting in my experience #GeriJC

@LaurenMCarlson: This study helps to challenge our health system status quo of inpatient versus outpatient medicine. How about an "in between"? #GeriJC

@ElizCha06134239: It seems to confirm that patients aren't harmed by HaH, but I still wonder about the differences between patients who select it versus those who don't. They likely have important differences in their home environment and other demographics. #GeriJC

@BERosensteinMD: A3) Adds to support of HaH programs. Shows decreased LTC placement which has broad healthcare system implications. #GeriJC

T4. What are the weaknesses of the study (design)?

@GeriEducator: The big question is, can having 9 studies provide enough results to make the study meaningful and generalizable? There were only 9 studies and as few as 2 for some analyses. With some studies being not comparable. I-square can be biased in small analyses.

@GeriEducator: Also, statistically speaking, there was no power to say mortality was the same #GeriJC

@KahliGoBlue: Heterogeneity = major limitation. Not only are there only 9 included studies, but several did not report all outcomes, and heterogeneity in reported outcomes (e.g. patient satisfaction) limits ability to draw conclusions on all aspects. #GeriJC

@VanessaOgundip1: Thanks for the great presentation! One limitation was lack of generalizability. Only a single study from the US, and had the smallest sample size. One of the challenges of implementing HaH programs in the US is reimbursement due to having a multipayer system. #GeriJC

@KahliGoBlue: Agreed – more studies on costs (both to healthcare system and out of pocket costs to patients) are needed for insurances to provide coverage #GeriJC

@ARussell065: The authors point out that out-of-pocket costs weren't included, which is especially important given the longer length of treatment among HaH pts. One study had found increased caregiver stress on admission...perhaps more information on financial burden can help address this? #GeriJC

@KahliGoBlue: Great points – these programs will only be successful if feasible for caregivers (both financially and practically) #GeriJC

@Daniela56730371: Transfer of costs and stress level of caregivers were my concerns as well. Since we are talking about chronic disease management, we have to anticipate the HaH is happening more than once. What is the financial burden to patient on that is still unknown #GeriJC

@allysonkpalmer: Agreed – would be interesting to see a descriptive/survey based exploration of caregiver experiences within this model #GeriJC

@ElizCha06134239: As others have said, the heterogeneity and generalizability seem like the biggest weaknesses. Each health system/payor will have different resources available and target patients #GeriJC

@KahliGoBlue: Yes – this study only focused on chronic conditions but it seems like some acute presentations (PNA, cellulitis) may work well with a HaH model too #GeriJC

@curcumin: Was iatrogenic disease different between the two groups? #GeriJC

@vpwalston: Lack of generalizability and direct costs to the patient are my concerns as well #GeriJC

@BERosensteinMD: A4) Little odd to find no difference in functional outcomes but HaH had fewer discharge to LTC. Potentially result of heterogeneity as mentioned vs. different measurement tools used in studies, further limiting comparability. #GeriJC

T5. How would you introduce the findings in your practice?

@PellecerSanchez: I would begin by making the argument of lower cost with no changes in mortality and potential for goal concordant care #GerijC

@allysonkpalmer: This study motivates me to engage with efforts to pilot and study hospital at home at my own institution #GerijC

@ElizCha06134239: Our health system is looking into a HaH program, and having these different examples could provide useful models to help determine what outcomes are meaningful to measure, etc. #GerijC

@BERosensteinMD: A5) In terms of value, this review shows likely benefits of HaH. Treatment at home, fewer discharges to LTC, at least similar mortality, and potential increase pt satisfaction. Further study needed for costs – to pt and system – and how best to use. Def worth trying #GerijC