Virtual PT in Hospital at Home

Alexander Katherine, Zuccaro Molly, Bruce Sarah, Solorza Andres, Aufiero Paula, Walton Kaitlin, Stempek Susan

Background:

Lahey Hospital & Medical Center's HAH program admits ~100 patients / month

Not much is known in the literature about PT services for Home Hospital patients, though it is hypothesized that due to mobility differences to brick-and-mortar care, patients discharged from Home Hospital may be more mobile at the time of discharge than their brick & mortar discharged counterparts.

There were barriers to efficient in person PT services for patients on the Hospital at Home service.

The team worked collaboratively with the "brick and mortar" inpatient PT team to develop a Virtual inpatient PT consult process.

Methods:

In March of 2025, a virtual PT "pilot" began. (Data reviewed here is through August 2025)

A workflow was developed initially with one engaged innovative physical therapist, initially focused on follow up visits.

Virtual PT was coordinated with an in-home clinician (paramedic or RN)

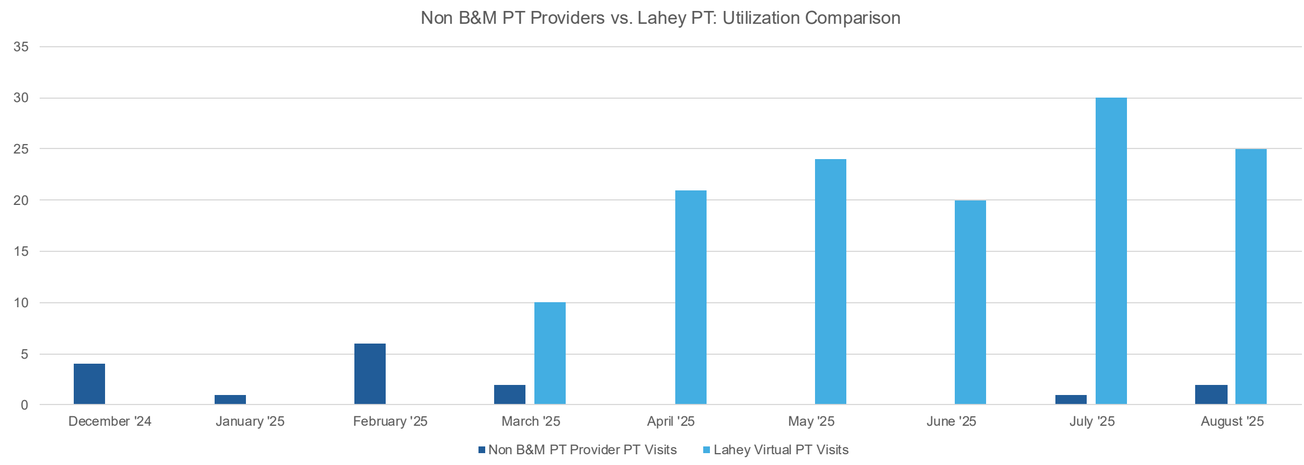
Once this capability was formalized, in person PT for Hospital at Home was only done for patients identified to have this need via the virtual PT assessment.

Conclusion:

Virtual PT is additive to a Hospital at Home program as it allows for patients with mobility support needs to be offered this model of care and to improve in the setting they call home, sometimes also supporting rehab & skilled nursing disposition alternatives.

Finding #1:

Visits by Non-Brick & Mortar PT providers decreased, while total PT visits increased.



Finding #2:

34% of patients experienced functional improvements via virtual PT treatment.

Metric	Data
Patients Identified for Virtual PT	112
Patients Seen By Virtual PT	101
Total Virtual PT Sessions Completed	130
PT Sessions By Non-B&M PT Providers	5
PT Recommendations Identified Functional Improvements	21
PT Recommendations Identified Functional Decline	2
No Change in PT Recommendation	39
Single Virtual PT Visit (Eval Only)	39

Finding #3:

Virtual PT helped facilitate an alternative disposition plan to rehab and/or skilled nursing for some patients, (sometimes based on functional improvement and sometimes based on helping them understand what home disposition would really be like).

Metric	# of Patients	%
Patients with Rehab Recommendation (on entry to HAH or on vPT eval)	20	100%
Rehab Recommendation Improved to Home PT with 24-hour supervision, Home PT, etc. while on HAH program	10	50%
Rehab Recommendation Remained	10	50%
Patients Actually Discharged to Rehab from HAH	3	15%

References:

Thomsen AML, Tayyari N, Duvald I, *et al* Hospital at home for elderly acute patients: a study protocol for a randomized controlled trial *BMJ Open* 2024;**14:**e083372. doi: 10.1136/bmjopen-2023-083372

Yao, X., Paulson, M., Maniaci, M.J. *et al.* Effect of hospital-at-home vs. traditional brick-and-mortar hospital care in acutely ill adults: study protocol for a pragmatic randomized controlled trial. *Trials* **23**, 503 (2022). https://doi.org/10.1186/s13063-022-06430-6

Denecke, K. Mapping the landscape of Hospital at home (HaH) care: a validated taxonomy for HaH care model classification. *BMC Health Serv Res* **25**, 84 (2025). https://doi.org/10.1186/s12913-025-12251-5

Cristian Madrid, Karthik Gnanapandithan, Michael G. Heckman, Sophia G. Blumenfeld, Rachel Gothot, Colt Cowdell, Michael J. Maniaci, Sally Anne Brown, Jennifer B. Cowart, Margaret Paulson, Wendelyn Bosch, Hospital-at-Home Patient Fall Predictors, Mayo Clinic Proceedings: Innovations, Quality & Outcomes, Volume 9, Issue 4, 2025, 100633, ISSN 2542-4548, https://doi.org/10.1016/j.mayocpiqo.2025.100633.

Helberg J, Bensimhon D, Katsadouros V, Schmerge M, Smith H, Peck K, et al. Heart failure management at home: a non-randomised prospective case–controlled trial (HeMan at Home). Open Heart. 2023;10:e002371. https://doi.org/10.1136/openhrt-2023-002371

Yadav RR, Mahyoub MA, Capriotti MW, Berio-Dorta RL, Dougherty K, Shukla A. The Impact of a Hybrid Hospital at Home Program in Reducing Subacute Rehabilitation. Risk Manag Healthc Policy. 2023 Oct 31;16:2223-2235. doi: 10.2147/RMHP.S419862. PMID: 37927908; PMCID: PMC10625393.

Wolie ZT, Roberts JA, Gilchrist M, McCarthy K, Sime FB. Current practices and challenges of outpatient parenteral antimicrobial therapy: a narrative review. J Antimicrob Chemother. 2024 Sep 3;79(9):2083-2102. doi: 10.1093/jac/dkae177. PMID: 38842523; PMCID: PMC11368434.