



Virtual Nurse: Using Innovation to Enhance Bedside Care

What is Virtual Nursing ?

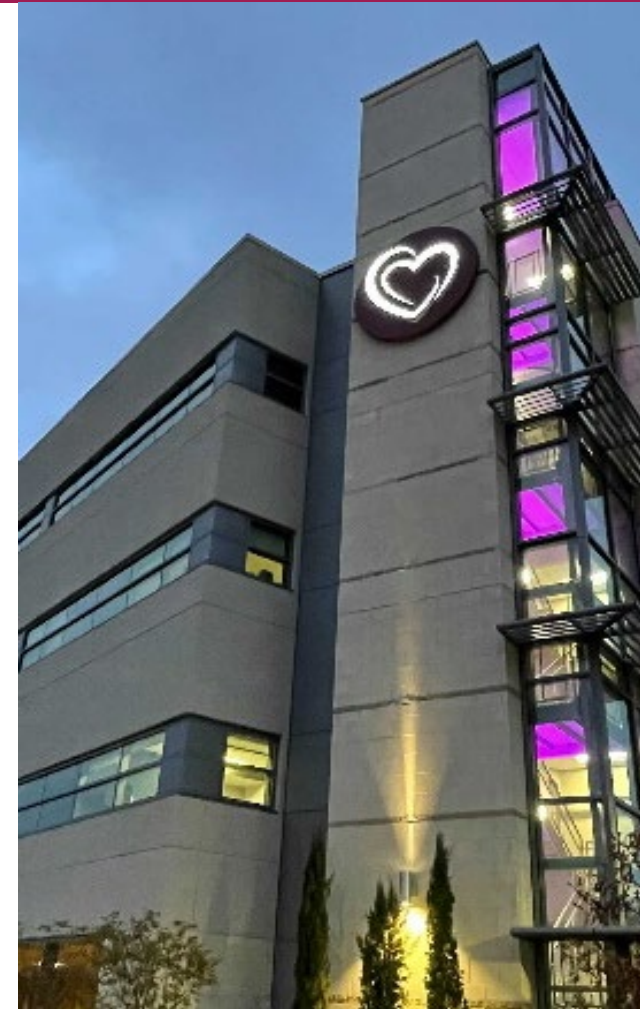
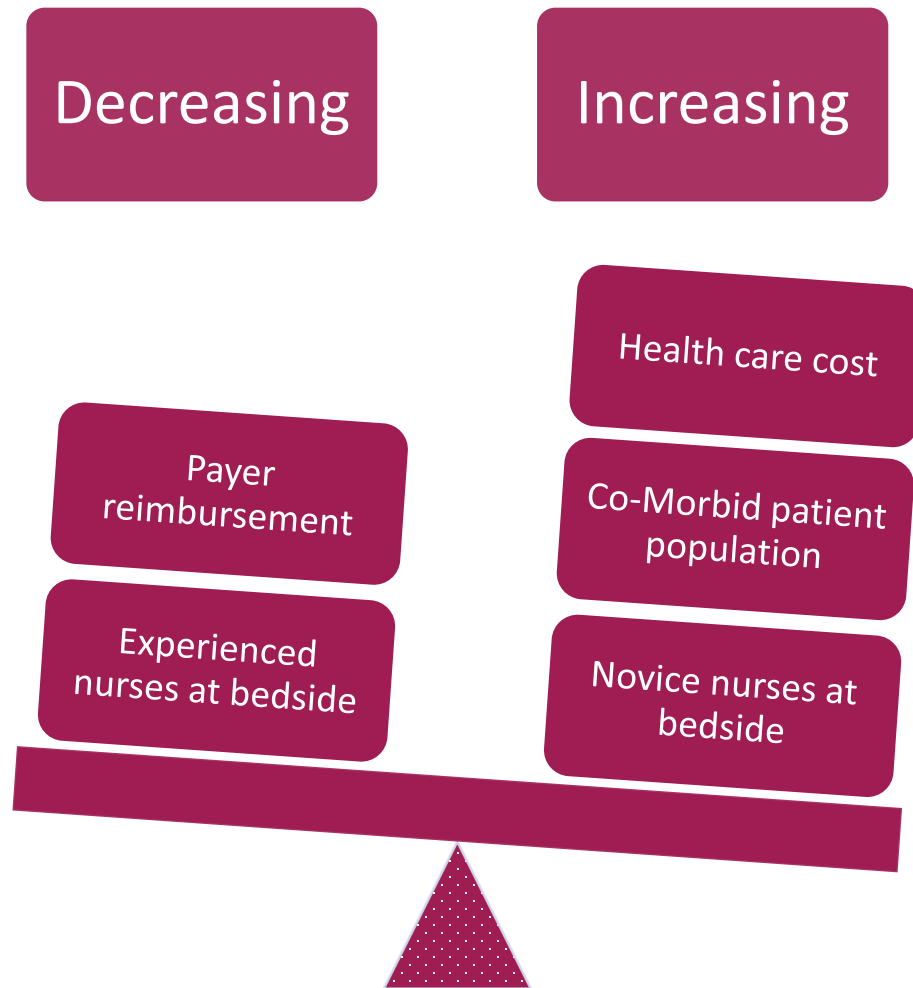
Registered Nurse working remotely to serve as a resource for patients and bedside caregivers



Use innovative technology allowing the Virtual Nurse to assist in patient care by interacting directly in patient/caregiver and staff

The goal is to have a positive impact on quality, safety, employee and patient satisfaction

Why Virtual Nursing?





“The way to get started is to quit talking and begin doing.”

- Walt Disney

Expand Business Case

- During Proof of Concept, workflow was adjusted as needed
- Expanded Proof of Concept to Virtual Nurse Program

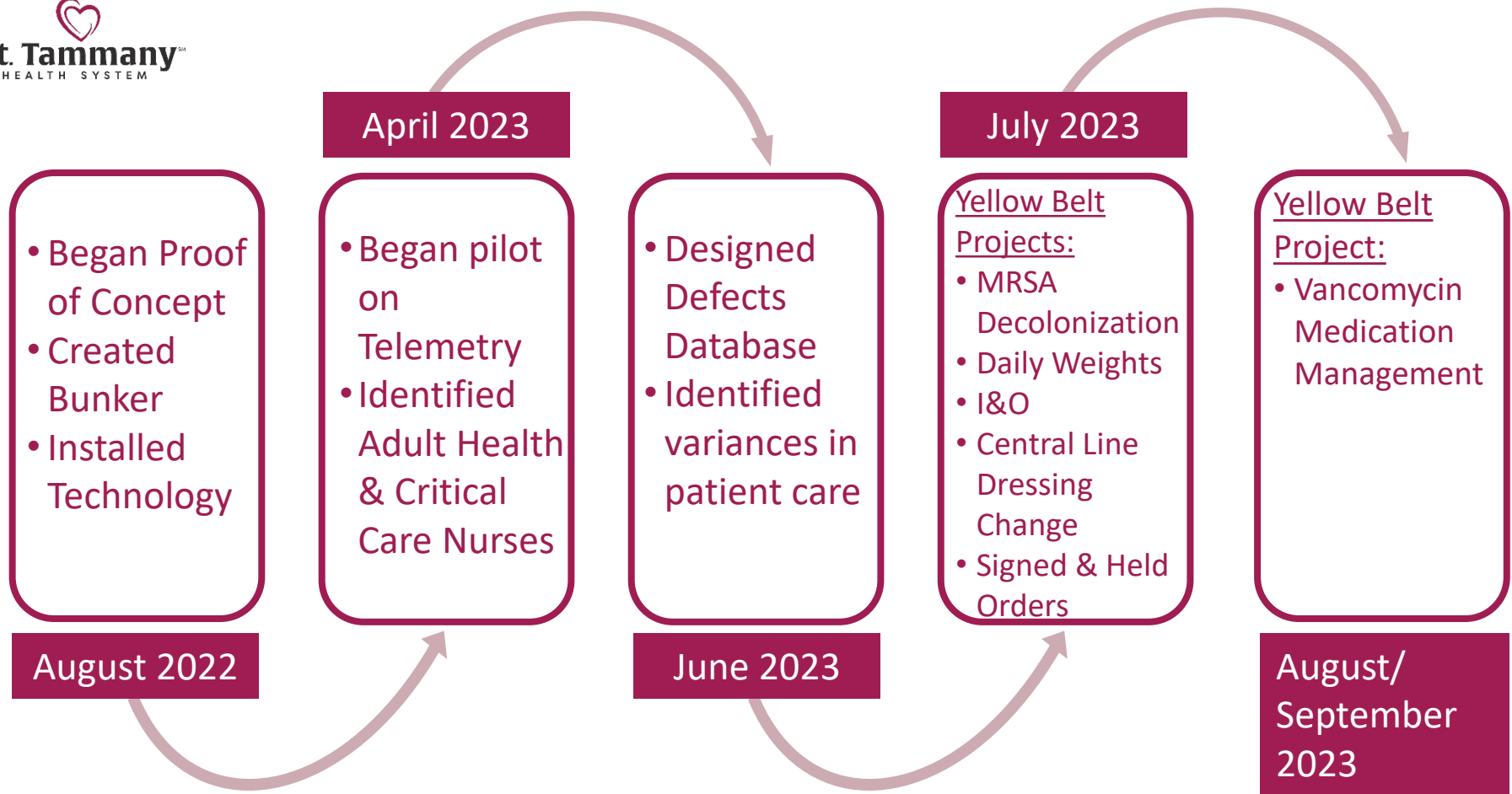
High Reliability

- Utilized Lean Six Sigma Methodology and tools
- Defined identification of “good catch” and “defects”

Process Improvement

- Identified highest clinical risk issues to track and trend
- Utilized Agile Project Management to resolve issues

Virtual Nursing: Proof of Concept to Full Program



Role of Virtual Nurse

ADMISSION/ DISCHARGE

- Admission Assessment excluding physical assessment
- Home Medication inventory reconciliation
- Care Planning
- Discharge Preparation and Patient Education

PATIENT SUPPORT

- Provides patient education on new medication/diagnosis
- Pre-Op/Post Op Teaching
- Virtual Rounding with safety checklist

RESOURCE

- Support for bedside nurse
- Mentoring/assistance with problem solving
- Dual sign off for medication/blood administration

Early Wins

SAFETY

- Collaboration between Critical Care and Adult Health
- ↑ Coaching in the moment and mentoring of staff
- Department Referrals
- ↑ Social services, Diabetes Education, Palliative Care
- Uninterrupted time for Patient Education with focus on High-Risk Patient Population

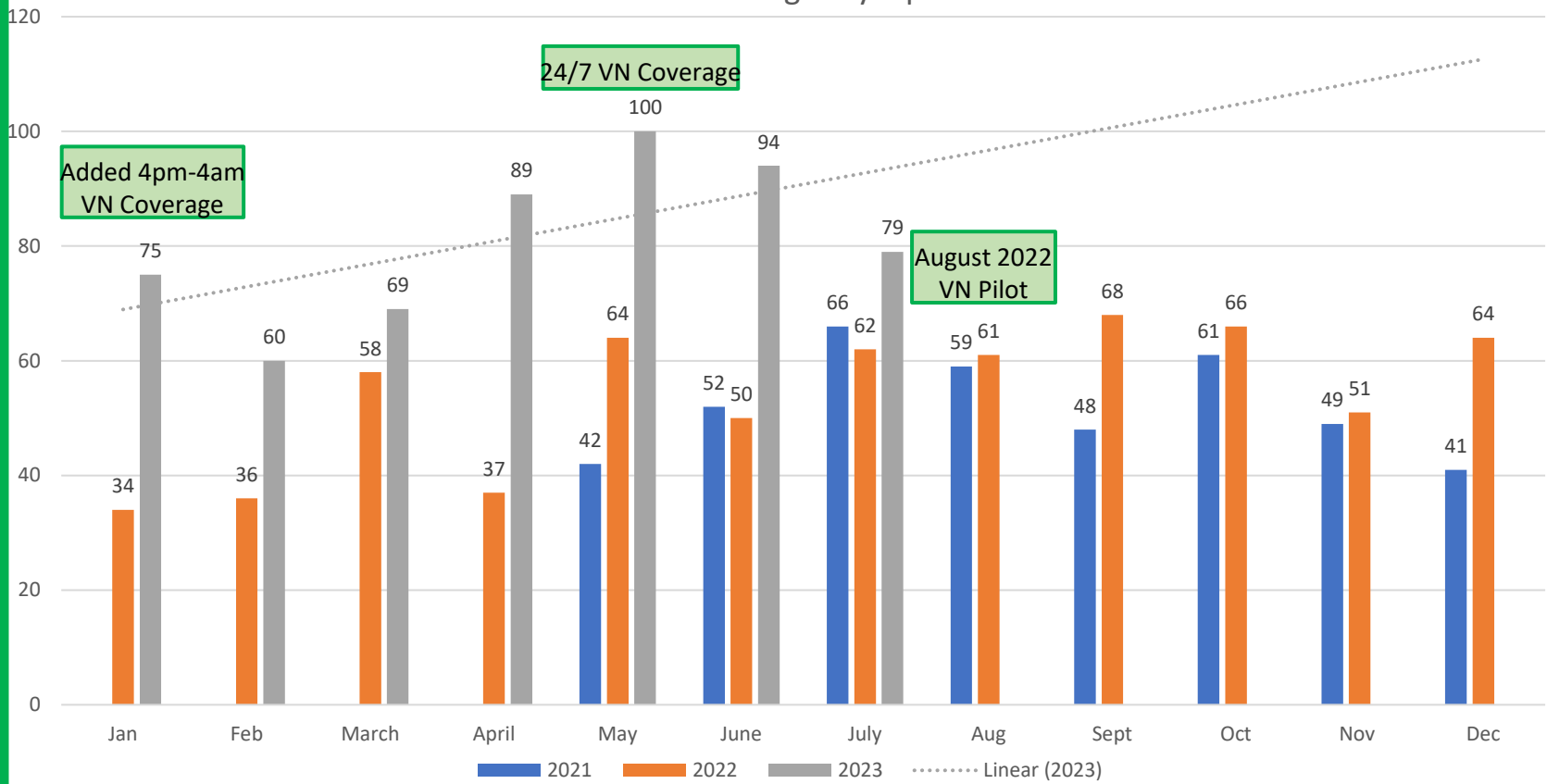
QUALITY

- Improved HCAHPS
- ↑ Response of Hospital staff 83rd %tile
- ↑ Comm with Nurses 93rd %tile
- ↑ Comm with Meds = 91st %tile
- ↑ Discharge Information = 84th %tile

THROUGHPUT

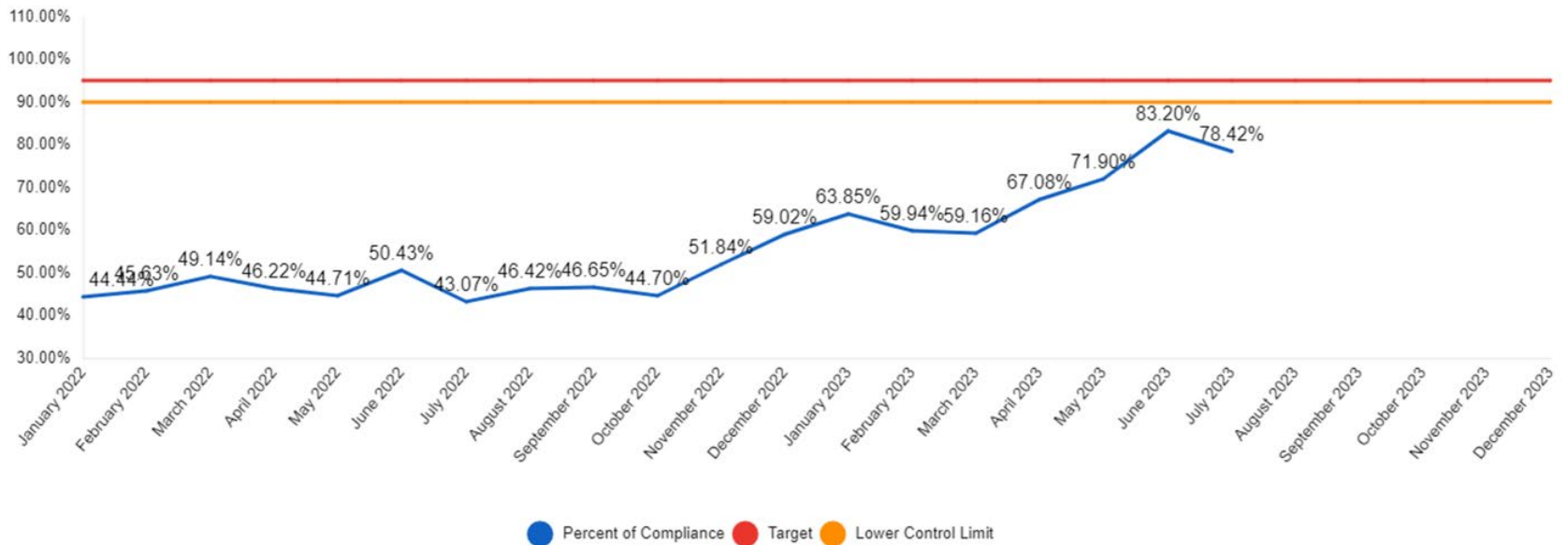
- Average daily census is 30 with average daily volume 39
- Improved patient outcomes with Heart Failure and COPD Initiatives
- Improved discharges by 1pm

of Discharges by 1 pm



Mupirocin Administration Compliance After Interventions Executed

MRSA Mupirocin Administered Compliance



Virtual Nurse Satisfaction Survey

The validity and reliability of the Virtual Nurse Satisfaction Survey instrument based on a 37.84% response rate (14/37) on the **Telemetry Unit** was calculated:

Cronbach's Alpha – 0.8643 (Good)



Virtual Nurse Satisfaction Survey

There were six items measured using a Likert scale of Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), Strongly Disagree (1):

1. The role of the virtual nurse is clear to me. – 4.50
2. The virtual nurse promotes an atmosphere of teamwork. – 4.43
3. There is good communication between the bedside nurse and the virtual nurse. – 4.14
4. The virtual nurse provides me with support in patient care through mentoring and education. – 4.29
5. Overall, the virtual nurse does a good job. – 4.64
6. Overall, I am satisfied working with the Virtual Nurse. – 4.71

Virtual Nurse Satisfaction Survey (Con't)

Comments:

- Help with incoming pt's for charge handoff. Other than that, spectacular job guys!
- The virtual nurse helps us out tremendously with the multiple admissions. The virtual nurse helps with the process getting in our new patients quickly and accurately. They also help us to catch any orders or medication errors that could have been missed when the patient was admitted. Overall, I think it is a great program
- Virtual nurse has been a great asset!
- The virtual nurses are very thorough and have been extremely helpful to myself and my patients.
- I found the virtual nurses to be extremely helpful and their work helped to decrease the workload of the bedside nurse tremendously.

Questions?



References:

- AdventHealth. "AdventHealth Hospitals Add "Virtual Nurses" to Reduce Work Intensity for Bedside RNs | AdventHealth Central Florida Media Resources | AdventHealth." *Www.adventhealth.com*, www.adventhealth.com/business/adventhealth-central-florida-media-resources/news/adventhealth-hospitals-add-virtual-nurses-reduce-work-intensity-bedside-rns#:~:text=By%20giving%20nurses%20a%20remote. Accessed 13 Apr. 2023.
- American Hospital Association. "Telehealth: A Path to Virtual Integrated Care | AHA." *Www.aha.org*, www.aha.org/center/emerging-issues/market-insights/telehealth/path-virtual-integrated-care#:~:text=Telehealth%20is%20part%20of%20a. Accessed 13 Apr. 2023.
- Booth RG, Strudwick G. Preparing Nursing for the Virtual Care Realities of a Post-Pandemic Future. *Nurs Leadersh (Tor Ont)*. 2021 Dec;34(4):86-96. doi: 10.12927/cjnl.2021.26685. PMID: 35039123.
- Boston-Fleischhauer, Carol. "The Explosion of Virtual Nursing Care." *JONA: The Journal of Nursing Administration*, vol. 47, no. 2, Feb. 2017, pp. 85–87, <https://doi.org/10.1097/nna.0000000000000444>.
- Bryant, Summer. "Virtual Nursing and the Medical-Surgical Nurse - ProQuest." *Www.proquest.com*, May 2022, www.proquest.com/openview/e4d5fa879f479bdb637d41f1328dee11/1?pq-origsite=gscholar&cbl=30764. Accessed 13 Apr. 2023.
- Gordon, Kayleigh, et al. "Experiences of Complex Patients with Telemonitoring in a Nurse-Led Model of Care: Multimethod Feasibility Study." *JMIR Nursing*, vol. 3, no. 1, 29 Sept. 2020, p. e22118, <https://doi.org/10.2196/22118>.
- Jones MS, Goley AL, Alexander BE, Keller SB, Caldwell MM, Buse JB. Inpatient Transition to Virtual Care During COVID-19 Pandemic. *Diabetes Technol Ther*. 2020 Jun;22(6):444-448. doi: 10.1089/dia.2020.0206. Epub 2020 May 12. PMID: 32396395; PMCID: PMC7262638.
- Lavin, Marjorie, and Jaclyn Stine. "Implementing an Inpatient Virtual Discharge Nurse Program – Riding the Wave of Technology at the Bedside." *Library.ania.org*, Lehigh Valley Health Network, 18 Jan. 2022, library.ania.org/ania/sessions/2662/view. Accessed 13 Apr. 2023.
- Lisk LE, Buckley JD, Wilson K, Martinez VA, Cadiz VR, Poropat L, Scruth EA. Developing a Virtual Nursing Team to Support Predictive Analytics and Gaps in Patient Care. *Clin Nurse Spec*. 2020 Jan/Feb;34(1):17-22. doi: 10.1097/NUR.0000000000000496. PMID: 31789959.

References (con't):

- Maniaci MJ, Torres-Guzman RA, Garcia JP, Avila FR, Maita KC, Forte AJ, Paulson MR. Overall patient experience with a virtual hybrid hospital at home program. *SAGE Open Med*. 2022 Apr 22;10:20503121221092589. doi: 10.1177/20503121221092589. PMID: 35481244; PMCID: PMC9036381.
- Perpetua Z, Seitz S, Schunk J, Rogers D, Gala J, Sherwood P, Mikulis A, Santucci N, Ankney D, Bryan-Morris L, DePasquale K. Virtual Discharge: Enhancing and Optimizing Care Efficiency for the Bedside Nurse. *J Nurs Care Qual*. 2023 Jan 23. doi: 10.1097/NCQ.0000000000000689. Epub ahead of print. PMID: 36693624.
- Poirier, Abby. "Trinity Health Examines In-Hospital Virtual Care Model." *Grand Rapids Business Journal*, 12 Jan. 2023, grbj.com/news/health-care/trinity-health-examines-in-hospital-virtual-care-model/. Accessed 13 Apr. 2023.
- Prey JE, Woollen J, Wilcox L, Sackeim AD, Hripcsak G, Bakken S, Restaino S, Feiner S, Vawdrey DK. Patient engagement in the inpatient setting: a systematic review. *J Am Med Inform Assoc*. 2014 Jul-Aug;21(4):742-50. doi: 10.1136/amiajnl-2013-002141. Epub 2013 Nov 22. PMID: 24272163; PMCID: PMC4078275.
- Rouleau G, Richard L, Côté J, Ramirez-Garcia MP. The Relational Virtual Nursing Practice Model: A Web-Based Nursing Intervention. *Nurs Sci Q*. 2023 Apr;36(2):164-173. doi: 10.1177/08943184221150262. PMID: 36994966.
- Russell, Mary Beth. "A Hybrid Virtual Nurse Model." *Nursing Management*, vol. 54, no. 2, Feb. 2023, pp. 42–49, <https://doi.org/10.1097/01.numa.0000918212.05937.de>. Accessed 18 Feb. 2023.
- Schuelke, Sue PhD; Aurit, Sarah MPH; Connot, Nancy BSN; Denney, Shannon MSN. The Effect of Virtual Nursing and Missed Nursing Care. *Nursing Administration Quarterly* 44(3):p 280-287, July/September 2020. | DOI: 10.1097/NAQ.0000000000000419