

Utilization of Discharge Delays: An Interdisciplinary Quality Improvement (QI) Initiative

Rebecca Lee, MD¹, Kavya Bana, MD¹, Josiah Miller, MD¹, Nina Rizk, MD, MPH, MS¹, Jan Schriefer, RN MBA MSN DrPH², Meghan K. Train, DO¹

¹Department of Medicine, University of Rochester, Rochester, NY

²Department of Pediatrics, University of Rochester, Rochester, NY

BACKGROUND

The Medically Ready for Discharge Date (MRDD) is the date at which a patient is deemed medically stable for discharge. The Discharge Delay (DD) describes a reason why a patient remains in the hospital beyond the identified MRDD.

In July 2021, URMC launched the Better Flow Program aimed at streamlining patient flow, including documentation of both the MRDD and DD in the electronic medical records (EMR). In November 2023, only 2.6% of patients discharged from the resident unit 61400 at Strong Memorial Hospital had a DD entered, despite 27% of the patients were past the MRDD.

Understanding the barriers to discharge that patients face may allow better allocation of appropriate resources to finding solutions for common barriers.

SMARTIE AIM

Our initial aim was to increase entry of the DD from 2.6% to $\geq 10\%$ in hospitalized patients between November 2023 and September 2024 on 61400.

As we met the goal starting December 2023, we now aim to increase entry of the DD by $\geq 13\%$ between July 2024 and December 2024.

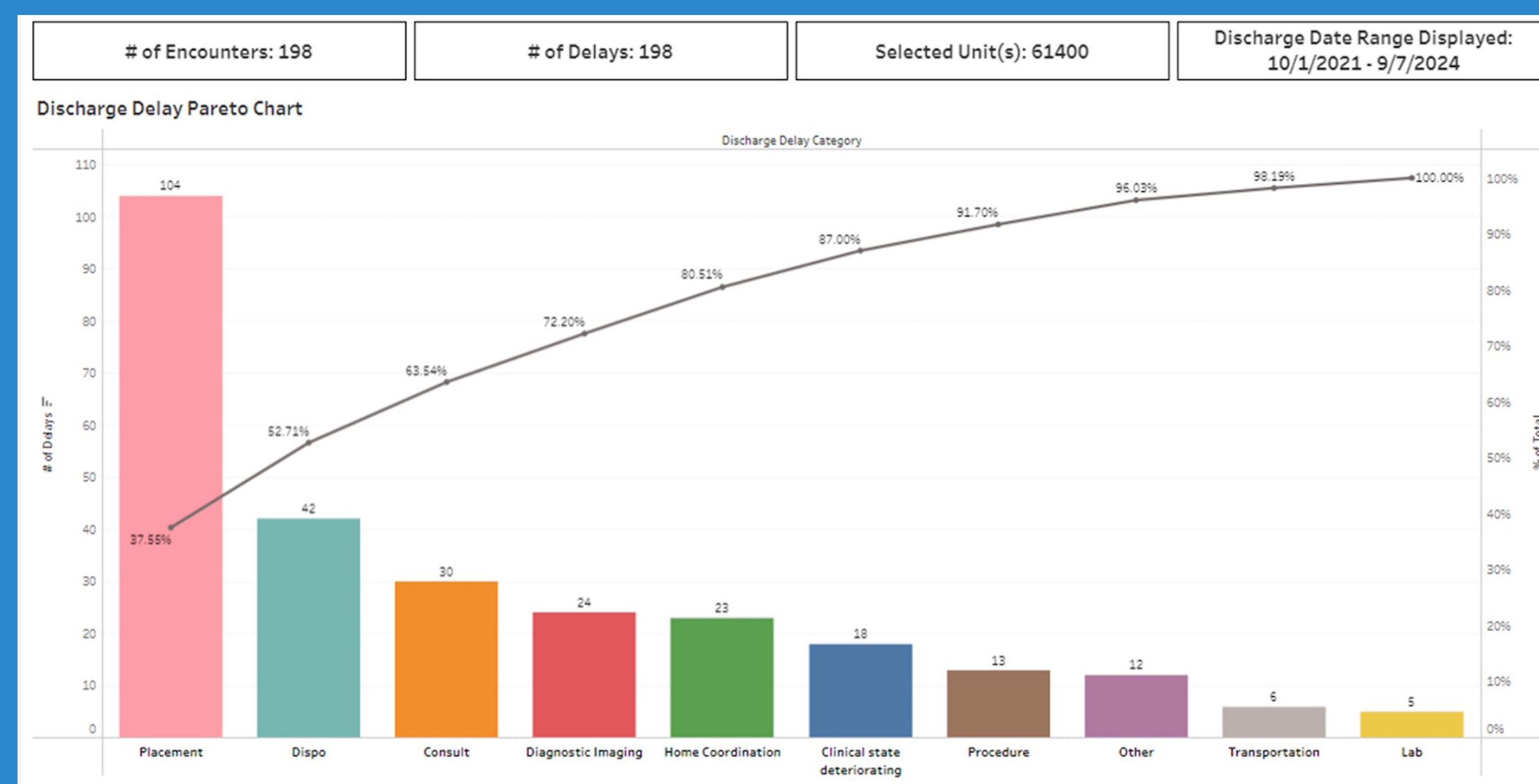
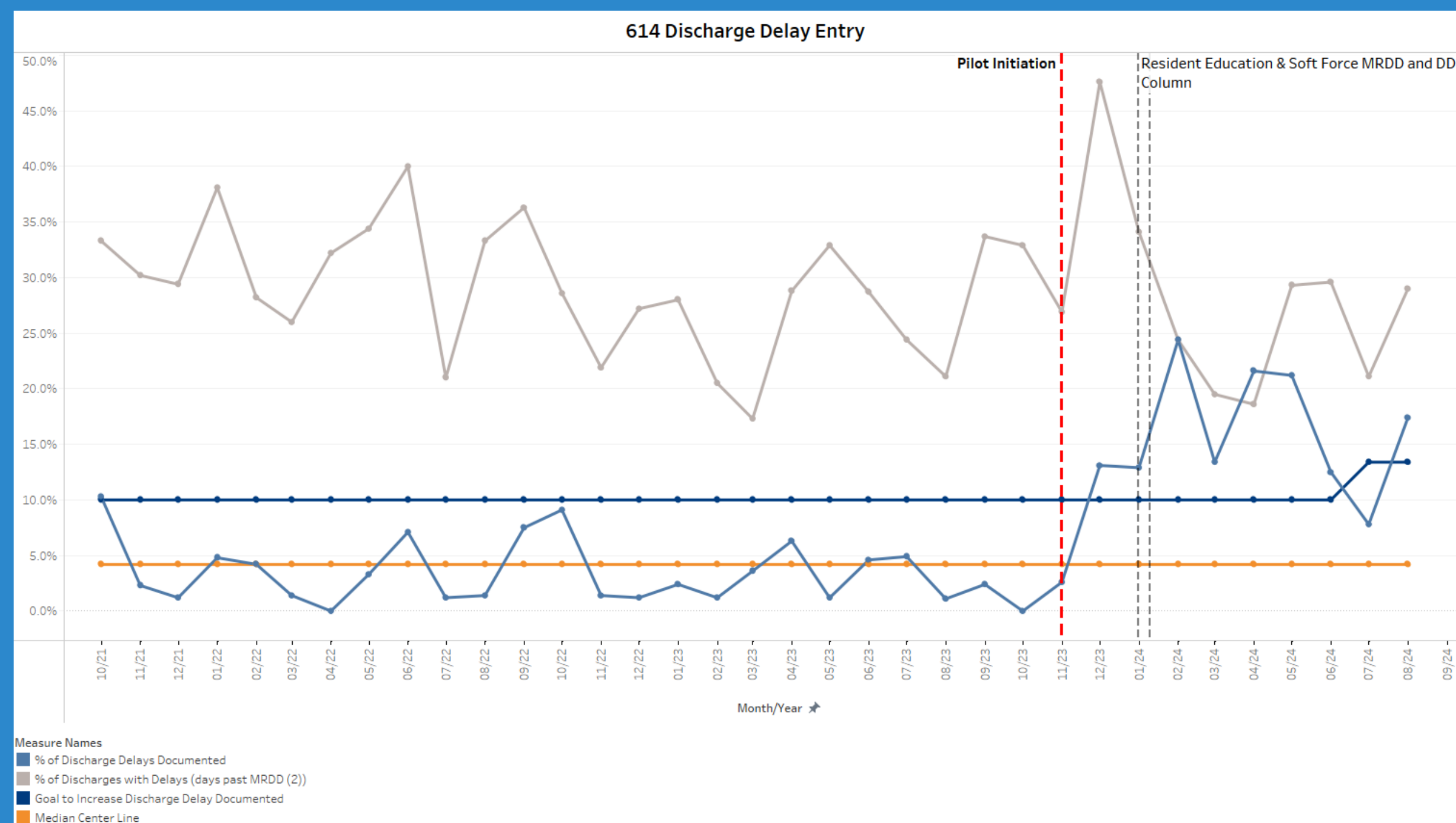
METHODS

We implemented Plan-Do-Study-Act (PDSA) cycles utilizing in-person and email communication to interdisciplinary teams consisting of pharmacists, nurses, providers, care coordinators, and social workers (detailed in table below)

PDSA CHART

CYCLE	DATE	INTERVENTION
1	Jan 2024	Resident education & soft force addition of MRDD and DD columns to EMR workflow – email and interdisciplinary round reminder
2	Jan-Mar 2024	Resident and faculty in-person education and awareness via weekly emails; business meeting
3	Apr-May 2024	Resident education to add MRDD column to EMR workflow – in person reminder
4	July 2024	New goal set to DD entry of $\geq 13\%$
5	Aug 2024	Resident in person education during skills block

By reaching $\geq 10\%$ entry of Discharge Delays, we discovered potential areas for improvement, including 1) consults for procedures, and 2) diagnostic imaging



REFERENCES

Meo N, Liao JM, Reddy A. Hospitalized After Medical Readiness for Discharge: A Multidisciplinary Quality Improvement Initiative to Identify Discharge Barriers in General Medicine Patients. American Journal of Medical Quality. 2020;35(1):23-28. doi:10.1177/1062860619846559

RESULTS

Since the pilot initiation in Nov '23, the percentage of documented DD within 2 days of past MRDD was sustained above the target of 10% and peaked at 24% in Feb '24. Collected data demonstrated a sustained shift above our median center line. In Jul '24, the entry dropped to 8% and has since returned to $>10\%$.

Utilizing the pareto chart, common barriers to discharge on 614 include: placement (39%, specifically bed availability), disposition changes (15.5%, specifically unsafe discharge), consults (11.6%), and imaging (8.1%, specifically echo and magnetic resonance imaging (MRI)).

DISCUSSION

We concluded that documentation of MRDD and DD improved with resident education and incorporation of these values into the patient workflow list in EMR. The decrease in entry in July '24 was anticipated due to the turnover of trainees. Reassuringly, we have already begun to see improvement in August '24. This may be attributed to additional education and our consistent interdisciplinary team members.

The lack of sustained improvement for documentation indicates the need for a systems approach such as a forcing function in the EMR. Moreover, the addition of MRDD/DD column to the patient lists for all senior residents – which was part of our education and a PDSA cycle – is something that can over time be a systems approach if adopted by all.

Since the inception of our project, we have now identified the following barriers of placement: physical therapy, and MRI/Echocardiogram. This was presented to senior leadership to identify opportunities for improvement in hospital flow. This data is only from a few medical units but is already making an impact to improve DDs which would be cost-effective for both patients and the hospital.

INCORPORATING EQUITY

We plan to stratify data obtained on DDs and correlate it with age, race, and social vulnerability index (SVI). Preliminary data shows increased length of stay (LOS) in patients with higher SVI, however, there is limited data points to assess in detail at this time. Further data may determine if higher SVI is associated with increased LOS and if disparities exist.

FUTURE DIRECTIONS

Our data is shaping future collaboration and quality improvement projects including decrease time to MRI and echocardiogram. We hope to continue to increase utilization of DDs among our selected units in a sustainable way and disseminate across med-surg units at URMC.

ACKNOWLEDGMENTS

- The Better Flow Team
- Dr. Keely Dwyer-Matzky
- Dr. Conrad Gleber
- Nicole Kaplan, UPP Coach
- Ashley White, Pharmacy
- Kara Vaughn, Care Coordinator
- Jordan Forshay, Social Work
- Teresa Shannon, RN Manager 614

