[Bill Churchwell, PA-C, Role] ISP Application 01/26/2026

Project Lead/Key Contact

- *Bill Churchwell, PA-C, Malignant Heme Inpatient APP*
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- 919-696-1345

Why are you interested in the Improvement Scholars Program?

I am interested in the UNC Improvement Scholars Program because it offers a structured, practical framework for advancing meaningful quality improvement across the UNC Health system. In my clinical work, particularly within malignant hematology, I routinely see opportunities to improve care coordination, communication, and patient-centered outcomes. The program's emphasis on interdisciplinary collaboration, data-driven improvement, and real-world projects aligns well with my goal of translating frontline clinical insights into sustainable system-level improvements. My interest for this project is within the malignant hematology group and how we can continue to improve our cancer patient's experiences within the cancer hospital.

A specific area of focus I am eager to address is improving the experience of our cancer patients by reducing delays in the start of scheduled chemotherapy (which is a multi-step process), particularly earlier in the day. Prolonged waiting times add unnecessary physical and emotional burden for patients and families and can disrupt downstream care and cause additional unnecessary nights in the hospital. Through a structured quality improvement approach, I am interested in identifying operational bottlenecks, aligning multidisciplinary workflows, and testing targeted interventions that reliably support on-time chemotherapy starts while maintaining safety and efficiency.

Problem Statement: What is the problem you are looking to solve?

Some of our patients are admitted for scheduled chemotherapy. There has been an ongoing issue with getting their chemotherapy started in a timely manner on the day of admission. This leads to patients feeling like "nothing is being done" and often view the day as a waste. They feel the need to come early is unwarranted. We have had multiple patients report these and other similar experiences to UNC patient relations through the years. The infusion center has become a glorified waiting room, when we have the resources to use it as it was originally planned to be used. And our patents are more often upset for these admissions than not due to delays and lack of "action" seen from their perspective. We have attempted to make this process more streamlined through the years with some positive outcomes but mostly negative ones. I have a particular interest in making this process more efficient and streamlined.

Importance Statement: Why is this project important?

Timely initiation of scheduled chemotherapy admissions is a critical determinant of both patient experience and operational efficiency in oncology care. I once looked at the date in late 2024 and early 2025 and our average chemotherapy start at UNC for a scheduled admission was ~9pm. So for example, these patients arrive to start their day anywhere from 730 am to 1030 am as scheduled. Then after having labs drawn sit in the infusion center until a bed is ready for them. Delays in starting chemotherapy contribute to patient anxiety, physical discomfort, and diminished trust in the care process, while also creating downstream inefficiencies for nursing, pharmacy, and inpatient teams. Improving the chemotherapy admission process to reliably support earlier treatment start times represents an important opportunity to enhance patient-centered care, optimize interdisciplinary workflows, and more effectively use health system resources. A focused quality improvement initiative in this area has the potential to deliver meaningful improvements in patient experience, staff satisfaction, and overall value of care.

Project Scope

In Scope:

- *What is the specific patient population your project will impact?* ***Adult Malignant Hematology patients***
- *How many patients are in the population?* ***~45 per month***
- *In what setting(s) would this problem be addressed? (e.g., hospital unit, outpatient practice setting, non-clinical setting, etc.)?* ***Both hospital unit (4ONC) and Outpatient infusion center***

Out of Scope:

Some out of scope examples for this project include:

- Hospital-wide bed allocation policy
- Staffing levels for both the infusion center and 4ONC
- Staffing availability directly affects chemo certified nurses availability

Measures: (Process, Balancing, Structure)

Please describe the anticipated outcome measure(s), 2-3 process measures, and one balancing measure. Please do not include more than 5 measures total.

Measure Name	Measure Type	Measure Calculation	Measure Exclusion	Data Source	Baseline	Goal	Collection Frequency
Median time from patient admission to chemotherapy infusion start	Outcome	**Numerator:** Time from admission timestamp to chemo start timestamp. **Denominator:** All scheduled inpatient chemotherapy admission in the study period	Chemotherapy regimens not meant to start on D1.	Electronic Health Records	Estimated 40%	80%	Weekly
Timely chemotherapy order placement (OKTT)	Process	Numerator: Number of scheduled chemotherapy admissions where chemo OKTT are placed within 2 hours of admission. **Denominator:** All scheduled inpatient chemotherapy admissions in the measurement period	Cases where orders are intentionally delayed for clinical reasons (lab abnormalities, clinical instability, new work up) or OP team failure to have orders ready/signed.	Electronic Health Records	Estimated 40%	80%	Weekly
Timely pharmacy verification/preparation	Process	**Numerator**: Number of chemotherapy	Orders delayed due to missing labs, content	Electronic Health Records	Estimated 50%	80%	Weekly

		orders verified by pharmacy within 2 hours of OKTT placement. **Denominator**: All chemotherapy orders placed for scheduled inpatient chemotherapy.	issues, or provider clarification requests such as OP team failure to have orders ready/signed.				
Chemotherapy initiated within 2 hours of medication availability	Process	**Numerator**: Number of chemotherapy infusions started within 2 hours after medication is delivered to the unit. **Denominator:** All chemotherapy medications delivered for scheduled inpatient chemotherapy.	Patient-related delays (off unit, clinical instability), line access issues requiring procedures, chemo certified nurse availability.	Electronic Health Records	Estimated 40%	80%	Weekly
Chemotherapy administration delays or safety holds due to incomplete preparation.	Balancing	**Numerator**: Number of chemotherapy administrations delayed or held due to missed required elements	Delays due to patient clinical instability, new contraindications discovered after admission, or patient preference to	Electronic Health Records	Estimated 15%	<5%	Weekly

		(labs, orders, line access) identified after medication delivery. **Denominator:** All scheduled inpatient chemotherapy administrations during the measurement period.	delay treatment.				
	Other						

Root Cause Analysis

- *What do you think are the underlying causes of the problem?* **A complicated multi-step process, lack of beds and therefore hesitancy from infusion center to start chemotherapy when available.**
- *Why do you think the problem is happening?* **As stated above, we used to be able to start chemotherapy in the infusion center, but since the pandemic we have had an increase in wait times for beds on 4ONC since we lost beds to the medicine teams/gyn onc. Therefore, this has caused a change in culture in the infusion center as they are hesitant to start chemotherapy just in case the patient doesn't get a hospital bed prior to the infusion center closing (which would prompt the patient to be directed to the ED until their bed opens up). The infusion center also dealt with staffing issues which caused the DAR patients to not have an assigned chair/nurse.**

Ideas for Improvement

- *What ideas do you have for changes that will result in improvement?*
- **1) Ability to hold beds (similar to BMT/Cards)**
- **2) Collect data again on how many times per month we have someone not have a bed assigned prior to infusion center closing. Possibly compare financial data of starting chemo in infusion compared to cost of delayed discharge due to delayed chemo start.**
- **3) Discuss with infusion leadership/pharmacy the barriers they still see for getting chemotherapy started sooner upon admission and get their buy-in.**
- **4) Pre-admission chemotherapy order verification by pharmacy if orders signed prior (should we create a chemo admission huddle?)**

Risks and Opportunities

- *What factors do you anticipate will foster improvement?* **Getting buy-in from infusion/pharmacy. I think if we can "guarantee" a bed before closing that would help. Possibility of infusion center staying open later in the future.**
- *What are the major challenges you anticipate?* **Getting to the infusion center to believe we will have bed prior to close. I think it will be challenging to have the hospital buy into holding beds.**

Stakeholders and Project Team Members

- *Who are the key stakeholders in your system and processes?* **Patients, Providers, 4ONC and Infusion nurses, Nursing leadership, CHIP, Clinic staff (outpatient teams, NN, Schedulers), MAO's**
- *Who are the key project team leaders to design and implement change?*

Name	Role
Anne Beaven, MD (Inpatient Medical Director) Deanna Harris, RN (Clinical Director Oncology Operations) Cassi Frank (System Clinical Lead for Patient Safety)	*Sponsor(s)*
Bill Churchwell, PA-C	*Team Lead, Data Lead*
Megan Ubik, RN (Infusion Nursing Manager – leukemia)	*Infusion Team Member*
Liz Galley, RN (Infusion Nursing Manager – Oncology)	*Infusion Team Member*
Jessica Auten, Pharm-D, Hailey Hirata, Pharm-D	*Inpatient Pharmacy Team members*
Kandice Hodges, Pharm-D	*Cancer Hospital Infusion Pharmacy (CHIP)*
Jill Humphries, RN (4ONC Nurse Manager)	*Inpatient nursing team member*

Impact on the Quintuple Aim

Domain	**Impact of the Project**
Improved Health	Earlier initiation of scheduled chemotherapy may improve adherence to planned treatment timelines and reduce delays in cancer care delivery. By improving operational efficiency and ensuring chemotherapy begins earlier in the day, patients may receive treatment in a more predictable and timely manner, supporting high-quality oncologic care and minimizing disruptions to treatment schedules.
Enhanced Patient Experience	Patients admitted for scheduled chemotherapy often experience prolonged waiting periods prior to treatment initiation. Reducing delays and improving coordination between the infusion center, pharmacy, and inpatient teams may decrease uncertainty and frustration associated with extended admission times, leading to a more positive and predictable care experience.
Enhanced Clinical and Staff Experience	Late chemotherapy start times frequently result in evening or overnight chemotherapy administration, which can increase workload strain on inpatient nursing staff, pharmacists, and oncology providers. Earlier treatment initiation may improve workflow predictability, reduce after-hours medication administration, and support a safer and more sustainable work environment for care teams.
Health Equity	Operational inefficiencies and prolonged hospital stays may disproportionately affect patients with transportation barriers, caregiver responsibilities, or limited support systems. Improving the efficiency and predictability of scheduled chemotherapy admissions may reduce these burdens and help ensure more equitable access to timely cancer treatment across patient populations.

Reduced Costs	Earlier chemotherapy initiation and improved coordination of admission workflows may reduce unnecessary delays that contribute to longer hospital stays and inefficient bed utilization. Improving throughput for scheduled chemotherapy admissions may enhance operational efficiency and reduce costs associated with prolonged inpatient stays.

Sustainment Plan

- *What ideas do you have for sustaining the improvement?* **I think once we have a more standardized process in place, it will continue to take care of itself. I personally have a stake in this process and am involved firsthand, so I will be able to make sure it remains in place. I think we also implement monthly or quarterly tracking to make sure we keep up with the process.**
- *How do you see the work you start with IHQI's support continuing?* **As noted above, since I have firsthand involvement in this process almost daily, I will be able to continue to make sure it is running smoothly. If any areas of concern arise, I will be able to work on the issues with the appropriate leadership. The improvements from this QI project establish sustainable workflows for timely chemotherapy initiation, including pre-admission order verification, standardized checklists, and early coordination with bed management. These processes create a repeatable, measurable system that can be monitored over time to maintain gains. The framework and data collection developed through this project can be applied to other oncology units and high-acuity infusion protocols, supporting broader operational efficiency. Additionally, the project reinforces multidisciplinary collaboration, laying the foundation for continued quality improvement across the institution.**

Carolina Quality Tools

How will Carolina Quality tools (Just Culture, SAFE reporting, TeamSTEPPS, huddles, and visual management boards) be used to support the work? Although use of these tools is not required, applications including them will be strengthened.

Tool	**How It Supports the Work**
Just Culture	Encourages staff to report delays or near misses in chemotherapy start times without fear of punishment, promoting transparency. This helps the team identify systemic barriers (e.g., late order placement, bed availability delays) rather than blaming individuals, which is essential for sustainable improvement.
SAFE Reporting	Provides a structured mechanism to report safety issues or operational risks, such as delayed chemotherapy, missing labs, or infusion errors. Data from SAFE reports can guide interventions, monitor balancing measures, and ensure that efficiency improvements do not compromise patient safety.
TeamSTEPPS	Supports structured communication and teamwork between oncology providers, nursing, pharmacy, and bed management. Tools like SBAR (Situation-Background-Assessment-Recommendation) can be used during handoffs or huddles to quickly coordinate scheduled chemotherapy admissions and reduce miscommunication.
Huddles	Daily or pre-admission huddles can align teams on scheduled chemotherapy admissions, identify potential bottlenecks, and proactively address issues (bed availability, lab delays, staffing constraints) before they impact start times. Huddles keep everyone informed and accountable.

Visual Management Boards	Boards in nursing units or pharmacy can display real-time status of scheduled chemotherapy admissions, track key metrics (expected arrival times, bed assignment, order verification, infusion start), and make workflow progress transparent to all team members, facilitating rapid response to delays.

References

- Sponsor letters – acknowledgement of support for this project
- **See attached to proposal submission email**

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February 12, 2026

Greetings,

RE: Support for William Churchwell's IHQI project
To whom it may concern:

The process to admit adult patients for chemotherapy is a flawed process that prolongs hospital stays, wastes patient's time which is not good for patient satisfaction, and frustrates everyone involved without improving patient safety or outcomes. Mr. Churchwell is very knowledgeable and familiar with this problem and the different steps in the process and has many ideas for how we could improve this process. He is also very motivated to find ways to improve the scheduled chemotherapy admission process. I am very excited that he is proposing an IHQI project focusing on this problem. As his supervising physician and as the inpatient service line leader for the two-heme malignancy inpatient service who most frequently are admitted for chemotherapy I offer him my full and unconditional support. I know that if anyone can find a solution to this problem, it is Bill.

Sincerely,

Anne W. Beaven, MD
Vice Chief of Operations for the Division of Hematology
Associate Professor of Medicine
Lineberger Comprehensive Cancer Center
University of North Carolina – Chapel Hill
170 Manning Drive, CB# 7305
Chapel Hill, NC 27599-7305

I am writing to express my strong support for this project focused on improving the scheduled admission process, specifically by exploring opportunities to initiate chemotherapy earlier in the day to facilitate timelier patient discharges and enhance the overall patient experience.

Delays in chemotherapy administration can contribute to prolonged inpatient stays, increased patient frustration, and inefficiencies across the care continuum. This project thoughtfully addresses these challenges by examining current workflows and identifying opportunities to better align inpatient admissions with infusion center operations. By optimizing the timing of chemotherapy administration, this work has the potential to improve patient flow, support earlier and safer discharges, and create a more seamless experience for patients and care teams alike.

This project presents an opportunity to strengthen collaboration between inpatient and outpatient teams, improve operational efficiency, and reinforce our shared commitment to delivering high-quality, patient-centered oncology care.

I fully support this project and believe the insights gained will be valuable not only for improving current processes but also for informing future care delivery models. Please feel free to reach out if additional information or clarification would be helpful.

Thank you,

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