

DEFINE OPPORTUNITY

Background:

The term alternate level of care (ALC) is used for a classification of patients who occupy a bed in a facility/hospital but who no longer require the intensity of resources/services provided in that care setting. ¹ ALC designation/coding is important as it facilitates measurement of the access gap from one care setting to another. These gaps, once defined, inform system level planning to improve access. ¹ Accurate ALC coding ensures that a hospital length of stay (LOS) accurately captures the provision of acute care services rather than days awaiting an alternate level of care. Within Alberta Health Services the electronic medical record system is called Connect Care (CC). Upon care team determination of a patient being ALC, a physician will enter an ALC order in CC, this subsequently initiates a code 'ALC-TBD' (to be determined). This generic code does not provide the reason why the patient resides in acute care. There are many ALC specific codes that can be selected post-ALC physician order and there are new CC workflows to support care team entry. Currently, at the University of Alberta Hospital (UAH) Medicine program the ALC definition understanding and the CC coding practice is not consistent.

Problem Statement:

The utilization rate of the ALC code 'ALC-TBD' among Medicine patients at the UAH is the highest, accounting for 92% (23 out of 25 in June 2022) across the entire hospital. Non-specific ALC coding may delay transition planning activities by the interdisciplinary care team, increase LOS which contributes to hospital and emergency department overcrowding, increase health system cost, and which diminishes both positive patient experience and outcome.

Aim Statement:

Improve the coding practice for ALC among Medicine patients in the UAH by June 2023 to:

- **Overarching Aim:** Reduce the average number of ALC days on medicine units and average length of stay (acute + ALC days)

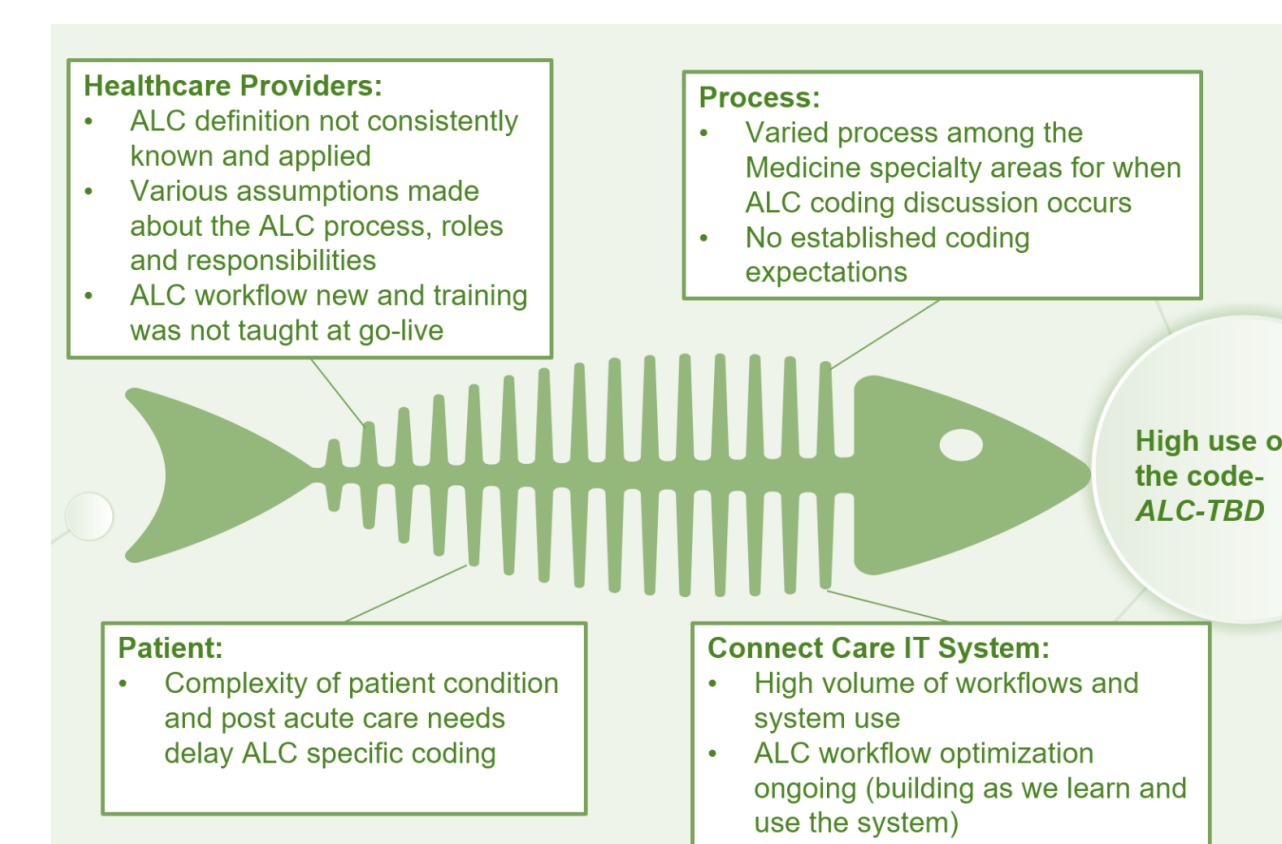
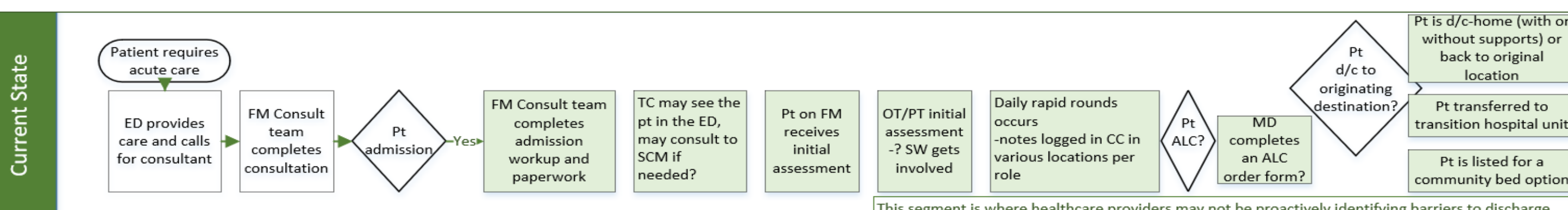
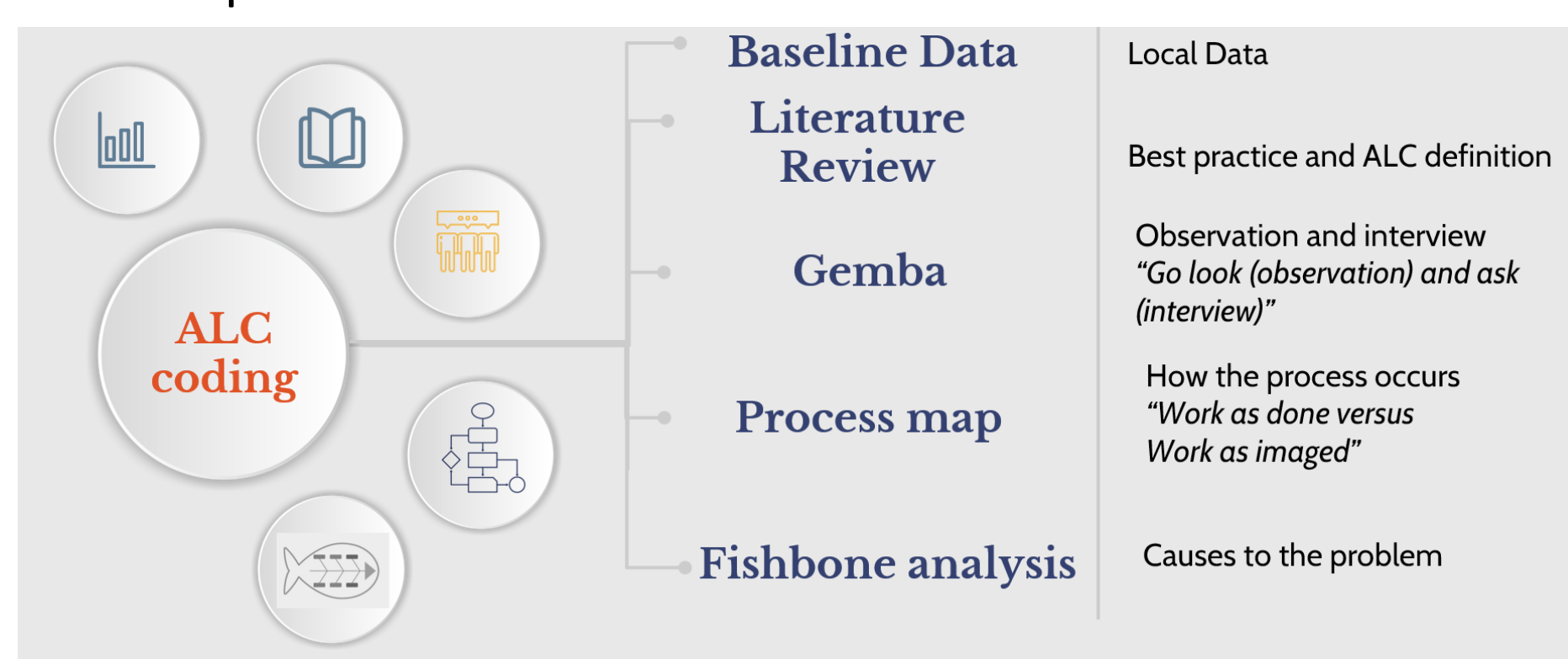
Change cycle #1 aims:

1. Improve ALC definition awareness and application in Connect Care [*close a knowledge-to-practice gap*]
2. Improve the specificity of ALC codes used and reduce ALC-TBD code utilization [*identify the reasons why patients are in hospital*]

BUILD UNDERSTANDING

Process Assessment:

To understand the process a tableau dashboard was developed to quantitatively determine ALC code utilization, a brief literature review was completed to provide background information. Process mapping and a cause-and-effect analysis were completed to identify current gaps and future interventions. Based on the identified interventions, a Plan-Do-Study-Act (PDSA) cycle was developed and implemented.

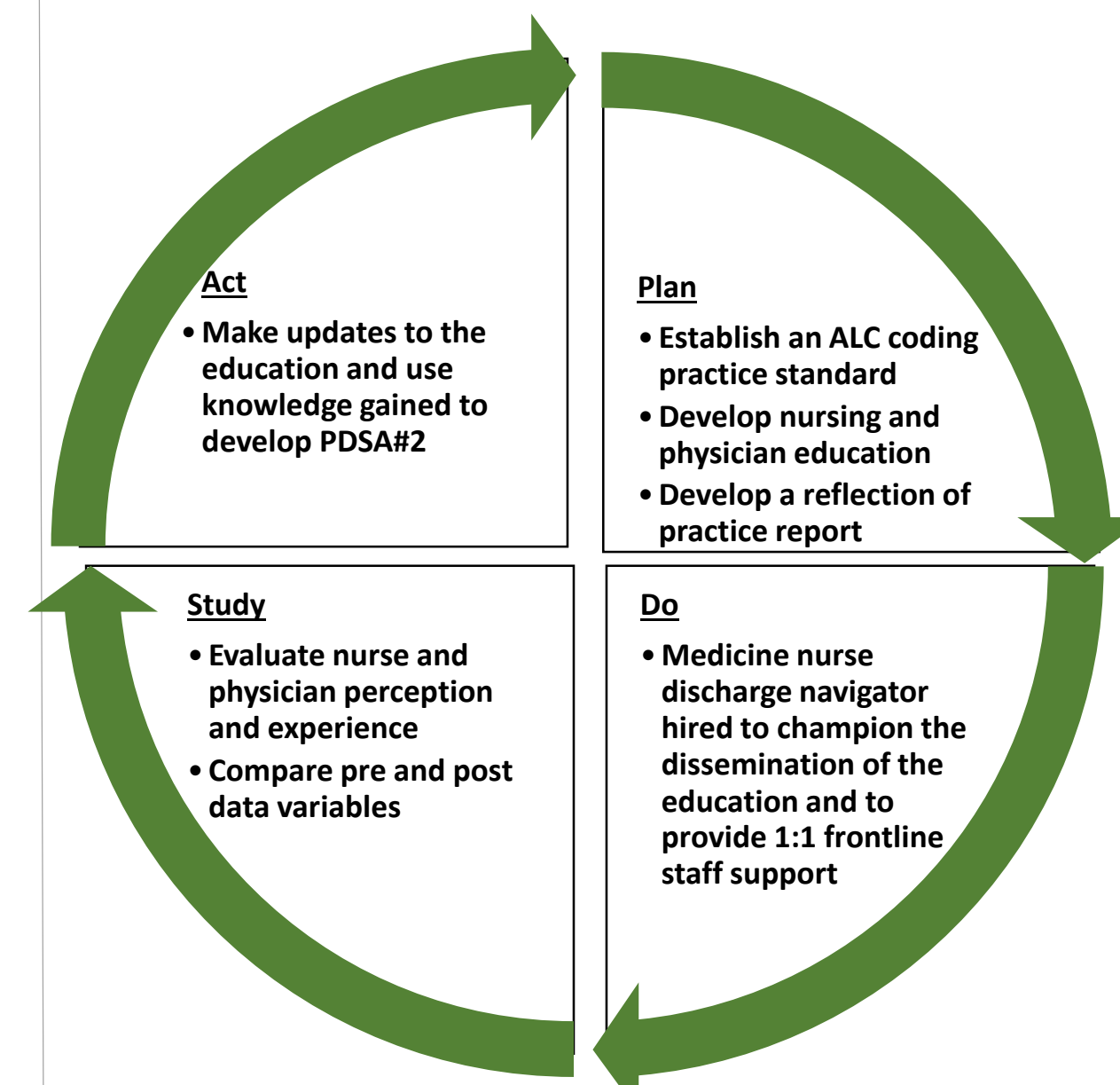


Gaps Identified

- Lack of awareness of the ALC definition and application within CC workflows
- No ALC coding practice standard
- Discharge barriers and ALC reasons across the Medicine program not transparent [high number of ALC-TBD code usage]
- ALC-TBD code not changed, patients discharged with this code, suggestive of care team lack of knowledge and lost opportunity for prompt transition planning

ACT TO IMPROVE

PLAN-DO-STUDY-ACT #1



QUALITY IMPROVEMENT MEASURES

Outcome	Number of ALC days on Medicine units Average LOS
Process	<ul style="list-style-type: none"> • Number of ALC-TBD codes • Number of days the ALC code changed from ALC-TBD to an ALC-specific code (i.e., finances) • Number of specific ALC codes • Number of patients discharged as ALC-TBD • Change in knowledge and application of the ALC definition and appropriate Connect Care workflows within the healthcare team [Number of unit managers and charge nurses trained, and the number of physician/residents received the educational update. As well completion of post-intervention questionnaire]
Balancing	<ul style="list-style-type: none"> • Rapid rounds length of time extended, Unit managers training and impact to their workload

PDSA 1 (Oct-Dec 2022): Family Medicine Units (5F2 and 5F3)

Nursing educational sessions and discussion with unit managers about ALC importance, coding practice expectations and workflows. Modifications made (as appropriate) to educational materials.

PDSA 1A (Dec 2022 – March 2023): Scale and Spread to all other medicine units (n=12)

- Jan 24, 2023- Education to UAH operational leadership (Executive Directors, Directors, PCM, UM). Modifications made (as appropriate) to educational materials. 1:1 sessions held to promote education and training if needed and requested.
- March 13, 2023- Education to core IM residents and April 13, 2023, a 'Show/Explain' and Q&A session
- March 23 and 30, 2023- Education to family medicine clinical associates and attendings

PDSA 1B (May-June 2023): Share ALC data

Per specialty share ALC data summary

MANAGE CHANGE

Collaboration and Communication Strategies:

- Quality Improvement (QI) team members included an Executive Director, Program Managers, Unit Managers, a Medical Student, an Internal Medicine Resident, a Family Medicine Clinical Associate, Discharge Navigator, Data Analyst, Clinical Informatic Physician leader, an attending GIM Physician and a QI Scientist.
- Local champions were determined per Medicine unit: Nursing (Unit Managers) and attending physicians
- Educational presentation- Provided *the why*- ALC is important; centralized key Connect Care workflows
- 1:1 peer mentoring from a Medicine Nurse Discharge Navigator to Unit Managers and physicians/residents
- Developed a Frequently asked 'question and answer' document
- Develop a reflection of practice 'audit and feedback' summary document

SHARE LEARNING

Why This QI Project Matters:

To patients, Albertans & the health care system: Decreasing the length of hospital stay supports caring for more patients within the health system, reduces time spent in the hospital emergency department, and improves patient satisfaction and outcomes.

Lessons Learned:

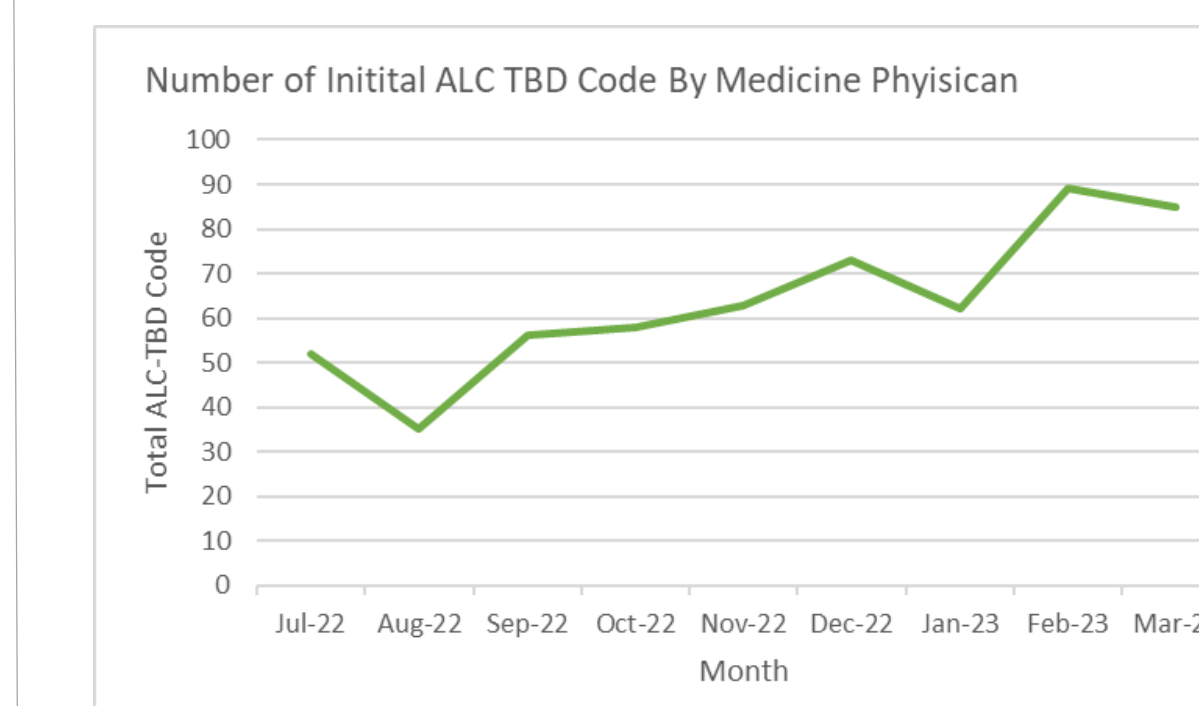
- Reducing ALC hospital days, is a multipronged challenge that requires more than one intervention component beyond coding. Deliberate, sequenced intervention components throughout the care continuum also need to be considered.
- Improved ALC-specific coding, which transparently identifies why the patient resides in the hospital, promotes a focused interdisciplinary transition planning conversation during on-unit rapid rounds.
- Developing an organizational culture focused on transition planning throughout the hospital care journey will take time.

RESULTS

Measure	5F2			
	July-Sept 2022 (Baseline)	Oct-Dec 2022 (Intervention)	Changes	Jan – Mar 2023 (Progress)
Average days that ALC-TBD generic code changed to Z-code (specific)	11	3.3	↓ 70.0%	2.3
Number of variety ALC specific codes	3	11	↑ 175.0%	9
Number of patients discharged with ALC-TBD	18	6	↓ 66.7%	1
Average ALC Days for All ALC Patients	16.4	12	↓ 26.8%	19.7
Average ALC Days for Patients that had ALC-TBD Code Changed [designation of ALC]	28.9	14.1	↓ 51.2%	28.8
Average LOS (Acute + ALC) Days	30.3	20.7	↓ 31.7%	33.5

Measure	5F3			
	July-Sept 2022 (Baseline)	Oct-Dec 2022 (Intervention)	Changes	Jan – Mar 2023 (Progress)
Average days that ALC-TBD generic code changed to Z-code (specific)	10	1.7	↓ 83.0%	1.4
Number of variety ALC specific codes	6	13	↑ 116.7%	9
Number of patients discharged with ALC-TBD	34	6	↓ 82.4%	7
Average ALC Days for All ALC Patients	10.4	14.2	↑ 36.5%	17.9
Average ALC Days for Patients that had ALC-TBD Code Changed [designation of ALC]	21.2	16.6	↓ 21.7%	36.5
Average LOS (Acute + ALC) Days	20.9	21.6	↑ 3.3%	26

Measure	Medicine Units [exclude 5F2 & 5F3]		
	Oct-Dec 2022 (Baseline)	Jan - Mar 2023 (Intervention)	% Change
Average days that ALC-TBD changed to Z-code	9.4	8.6	↓ 8.5%
Number of variety ALC codes	12	18	↑ 50.0%
Number of ALC-TBD discharges	50	35	↓ 30.0%
Average ALC Days for All ALC Patients	18	14.4	↓ 20.0%
Average ALC Days for Patients that had ALC-TBD Code Changed [designation of ALC]	31.4	42.4	↑ 35.0%
Average LOS (Acute + ALC) Days	45.1	36	↓ 20.2%



Summary of Results

- Average days that ALC-TBD generic code changed to Z-code (specific)-reduced by over 50%
- Number of ALC specific codes, improved from a pre range of 3-6, to post range 9-18
- Number of patients discharged with ALC-TBD-reduced ~80%
- Increase in physician awareness of the ALC order and usage (as indicated in the graph)

PROJECT LIMITATIONS:

Optimization of Connect Care Workflows ongoing, difficult to educate as workflow updates are made

- Because the Average LOS is an overarching measure on which multiple factors can have an impact, we cannot isolate the intervention's impact on this measure. Other confounding factors may also have an impact.

NEXT STEPS

PDSA #2: Develop an ALC post 4 to 7-day strategy, aimed to improve:

- Collaboration among the hospital medicine interdisciplinary healthcare providers
- Development of a targeted intervention to key ALC code discharge barriers
- Escalation of barriers to discharge promoting resolution by the appropriate leaders (i.e., PCM, Exec Dir) in acute and community care

Alignment with a provincial QI initiative supported by the Medicine Strategic Clinical Network

- ACBI (Acute Care Bundle Improvement Initiative)

Evaluation Plan

Develop, conduct, and analyze nurse and physician perspectives and experience associated with this QI effort.

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