

Effective Collaboration Towards Positive Perioperative Outcomes for the Cardiac Surgery Patient: A Perioperative Services – Cardiac Surgery Performance Innovation Project

Mary Perry, BSN, RN, CAPA¹ and Maridulce Belen Fortuno, MS/MSN, BSN, RN, CAPA¹

¹Ambulatory Surgery Care Unit (ASCU)/Procedure Readiness Evaluation and Preparation (PREP) Center



INTRODUCTION

- Nurses in the University of Maryland Medical Center (UMMC) Procedure Readiness Evaluation and Preparation (PREP) Center care for complex patients and support multiple surgical specialties, including cardiac surgery.
- Workflows related to cardiac surgery, specifically identification of blood type and antibodies (“blood banding”), presented a particular challenge for the clinic, and cardiac surgery patients were not always ready for the operating room (OR) on the day of surgery.

PROJECT AIMS

- To provide an efficient outpatient pre-operative 30-day blood band process in the PREP Center for the outpatient adult Cardiac Surgery patient.
- To establish a mutually beneficial internal work flow between UMMC Perioperative Services and Cardiac Surgery staff to minimize downstream OR delays.

DESCRIPTION OF CURRENT STATE

- A consultative group (TogetherMD) facilitated UMMC Perioperative Services leadership conversations in a review of internal workflow and processes needed to improve UMMC Perioperative Services for Cardiac Surgery.
- Findings from the discussions included:
 - Lack of available blood product(s) and timely antibody identification was key reason for delays into the OR
 - The PREP Center needed to streamline pre-operative blood type and antibody identification up to 30 days prior to surgery
 - Collaboration with Cardiac Surgery clinic, UMMC Transfusion Medicine, and UMMC Patient Administrative Services staff was necessary

STRATEGY

- Beginning in June 2019, the following performance improvement strategies were implemented:
 - Established workflow with assigned duties and responsibilities between Cardiac Surgery and UMMC Perioperative Services
 - Engaged UMMC Patient Administrative Services to establish an outpatient registration workflow for pre-operative 30-day blood band venipuncture appointments
 - Reinforced and validated PREP Center Patient Care Technician education regarding 30-day blood band lab procurement and associated form storage
 - Established open lines of communication between PREP Center leadership and Cardiac Surgery staff regarding real-time identification of workflow challenges

EVALUATION & OUTCOMES

- Post-implementation, all available 30-day blood bands and accompanying forms for next-day outpatient Cardiac Surgery patients have been delivered to the UMMC Ambulatory Surgery Care Unit and made available prior to each Cardiac Surgery patient’s arrival.
- Strategies have also demonstrated a success in decreasing delays for On-Time-First Case-Starts (OTFS).

Figure 1: OTFS for Adult Cardiac Surgery by Month

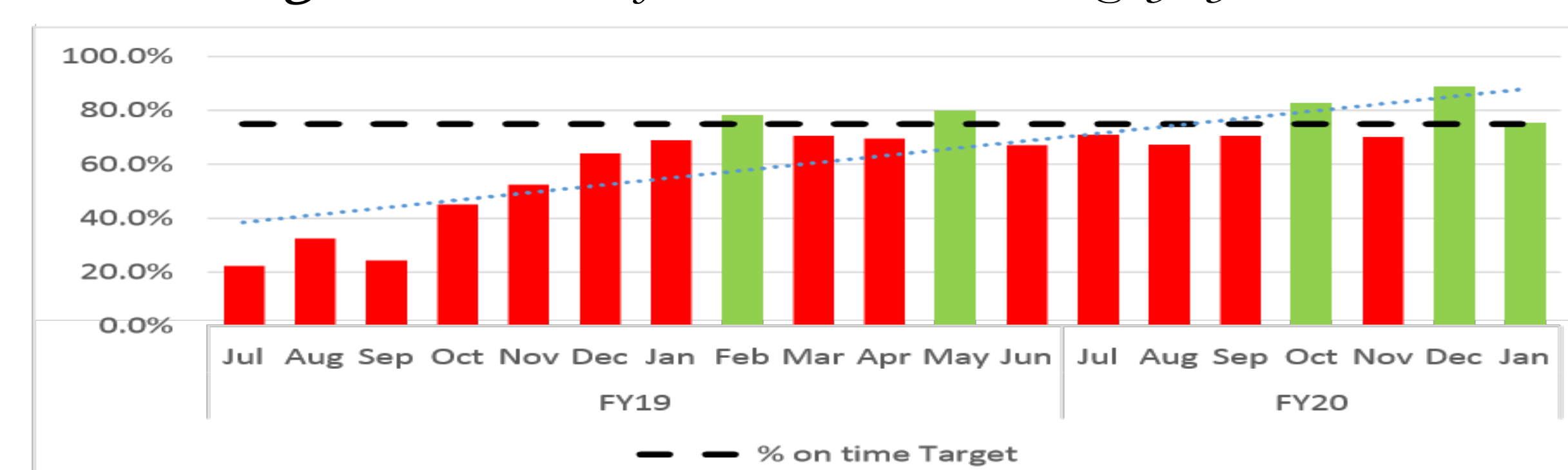


Table 1: Year-To-Date Percent of OTFS for Adult Cardiac Surgery*

	FY 2018	FY 2019	FY 2020
YTD Cumulative	26.9%	57.2%	75.1%

* Year-to-date (YTD) determined by the fiscal year

IMPLICATIONS FOR ADVANCING THE PRACTICE OF PERIANESTHESIA NURSING

- By engaging multiple perioperative disciplines, providers and members of the patient care delivery team, both patient care and organizational goals can be met.
- The PREP Center 30-day blood band management workflow played a “small but mighty” role in tandem with coexisting Cardiac Surgery performance innovation initiatives.

NEXT STEPS

- Weekly meetings of Perioperative Services leadership will continue in effort to review the data (goal: >80% OTFS) with decreasing reliance of consultative entity guidance.
- Plans to expand this initiative to other surgical services will begin in the near future.
- Continue to energize all staff by sharing successes and how their part were instrumental in providing stellar patient care as well as contributing to the medical center’s financial goals.

REFERENCES

1. Coffey Jr C, Cho ES, Wei E, Luu A, Ho M, Amaya R, Pecson FV, Kahaku D, Spellberg B, Sener SF (2018). Lean methods to improve operating room elective first case on-time starts in a large, urban, safety net medical center. *Am Journal Surgery*, 216 (2), 194-201.
2. Taylor D (2014). Perioperative leadership: managing change with insights, priorities, and tools. *AORN*, 100(1), 8-29.

ACKNOWLEDGEMENTS

The entire staff of the UMMC PREP Center and ASCU, Kevin Stierer, MD, Senior VP UMMC Perioperative Services, James McGowan PhD, RT, VP UMMC Perioperative Services, UMMS Cardiac Surgery Administration and Providers, UMMC Patient Administrative Services

