Tick Tock: Enhancing Cardiac Cath Lab Efficiency by Improving First-Time Case Starts

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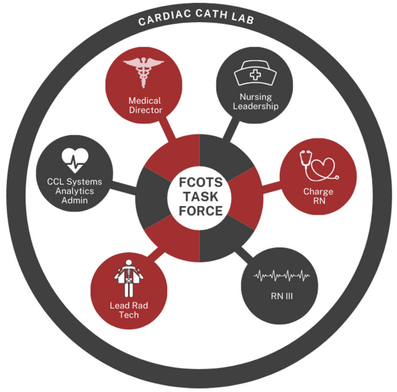
BACKGROUND/INTRODUCTION

First case on-time starts (FCOTS) are imperative for maximizing efficiency in procedural areas such as the Cardiac Cath Lab (CCL). Timely initiation of the first scheduled case establishes the operational cadence for the entire day, supporting optimal staff utilization, procedural throughput, patient experiences, and financial performance[1]. Delays in FCOTS creates a cascade-like effect, disrupting workflow, increasing overtime, limiting daily case capacity, and potentially affecting patient safety and quality outcomes[2-5].

At one CCL within a large hospital system, FCOTS was operationally defined as the patient being physically present in the procedural suite at or before the scheduled case start time[1]. Internal performance review revealed that only 57% of first cases were starting on time, highlighting a significant opportunity for process improvement, particularly in the setting of anticipated growth in procedural volume and service demand.

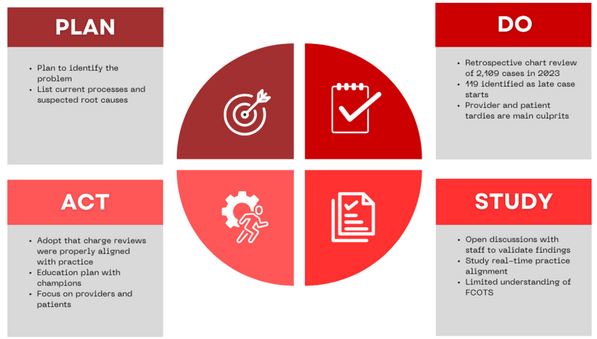
TEAM DESCRIPTION

An interprofessional FCOTS Task Force was convened, including the CCL Medical Director, CCL Nursing Director, CCL Nursing Manager, and highly respected informal bedside staff leaders from nursing and radiologic technology[5]. The group was intentionally selected to leverage multidisciplinary expertise, integrate diverse role perspectives, and foster shared accountability for practice improvement. Task force members were selected based on their demonstrated commitment to operational excellence and their track record of leading successful performance improvement initiatives within the CCL.



PREPARATION, PLANNING, AND ASSESSMENT

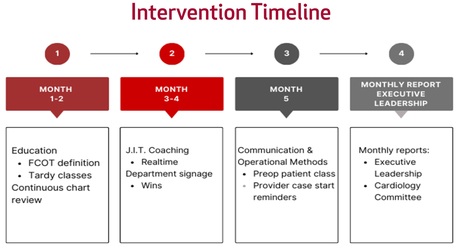
The Plan-Do-Study-Act (PDSA) framework was employed to systematically drive improvement in FCOTS[5-6]. With executive leadership sponsorship, the multidisciplinary Taskforce established an ambitious goal to improve FCOTS by 10%, setting a one-year internal benchmark of 67% of first cases starting on time.



A retrospective chart review of 2,109 CCL cases identified provider tardiness and delayed patient arrival as consistent contributors to late case starts. Further, open discussions about FCOTS were held with all CCL staff and patients to ensure that documented data accurately reflected real-time practices and experiences ensuring that recorded data accurately reflected real workflows, perceptions, and operational barriers. Synthesis of audit data and discussion findings revealed that communication gaps and limited understanding of procedural area start-time expectations were key drivers of FCOTS variation.

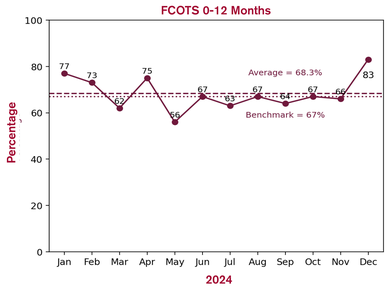
IMPLEMENTATION

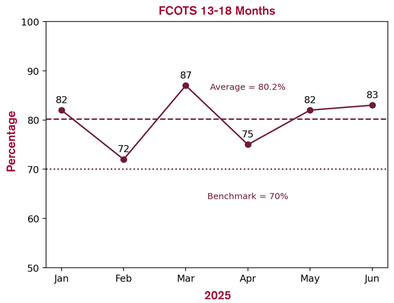
In the first two months, the Taskforce focused on improving compliance with FCOTS education sessions emphasizing the importance of timely starts and informed all CCL providers and staff that first cases would be monitored for timeliness and documentation accuracy. CCL staff received targeted training on tardy classifications to ensuing practice consistency, supported by daily huddle updates led by informal unit leaders. Initiative data was reported monthly to executive leadership during Cardiology Committee meetings for transparency. In months three and four, nursing leadership provided just-in-time coaching to address fallouts, fostering accountability and continuous improvement. Metric signage was installed in the CCL to highlight progress. During the fifth month communication interventions were added. Staff began calling patients at one week and one day before procedure intervals to confirm arrival times and provide education. Providers received reminder calls 45 minutes before case starts to complete any outstanding tasks necessary for timely case initiation[5].



OUTCOMES

Volume increased 14% during this project, and outperformed its initial FCOTS target. By 12 months, the internal benchmark rose to 70%, which the CCL exceeded with a sustained rate of 80.2%.





IMPLICATIONS FOR PERIOPERATIVE NURSING

Timely first case starts in the CCL are essential for maximizing efficiency and ensuring timely patient care. FCOTS delays trigger scheduling setbacks, fiscal risks, and extend patient wait times. For perioperative and procedural nurses, consistent FCOTS punctuality supports effective resource allocation, reduces overtime, enhancing team performance and patient satisfaction[1-5].

REFERENCES