Reducing Patient Cycle Time in Ambulatory Care Settings

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BACKGROUND

Patient cycle time is the amount of time a patient spends during an office visit. It is a direct reflection of a practice’s efficiency and optimization of this process can have impact on revenue, patient experience, and staff experience. The average cycle time for the Montefiore Medical Group (MMG) Ambulatory care practices, located throughout the South Bronx and lower Westchester area, ranges between 1hour28mins to 2hours32mins. The Institute for Healthcare Improvement defines the methodology for calculating best practice cycle time as ‘time spent with the Primary Care Provider (PCP) x 1.5.’

OBJECTIVE

Reduce patient cycle time (minutes) by 25% at three MMG Ambulatory Practices from April 2016 to December 2016. The ultimate goal is to scale up and spread the changes to all 22 practices.

METHODS

The battery of metrics identified were as the following:

- **Balancing Measure**: Encounter Cycle Time = How long the patient encounter is open
- **Outcome Measure**: Patient Cycle Time = Patient Check-in to Patient Check-out
- **Process Measure**: Pre-Visit Wait Time = Time between registration and nursing triage
  - Pre-Visit
  - Post Visit
  - Check-in
  - Nursing Time
  - Wait for Provider
  - Time with Provider
  - Check-out

The patient flow was mapped out on a spaghetti diagram which helped outline the individual steps and the associated cycle time. Below is the diagram from Practice 1:

Using the PDSA methodology, the following interventions were tested and spread:

1. Managing staffing ratios by creating specific nursing and provider combinations. This allowed for clear delineation of tasks and communication between clinic staff and resulted in reduction of nursing triage time.
2. Utilization of the EMR as a communication tool between the care team. During the waste walk conducted at the practice it was observed that patient labels were being used to communicate to nurses and providers a patient was ready for them.
3. Daily clinical huddles which enabled a detailed review of vaccine supply, lab orders, clinical supplies etc. Thorough pre-visit planning allowed for a further improvement in patient cycle time for all visit types.

The change concepts utilized were eliminating wastes, improving workflow and managing time and variation.

RESULTS

- **Process Measure**: The process measure of pre-visit wait time reduced by an average of 32% across all 3 practices compared to baseline.
- **Balancing Measure**: The balancing measure of encounter cycle time reduced by an average of 42% across all 3 practices compared to baseline.
- **Press Ganey survey results for Physician Communication and Access to Care, showed a 3% and 6% improvement, respectively, in the top box score.

CONCLUSIONS

- A multidisciplinary team, development of innovative change concepts, and rapid improvement cycles led to successful and sustained improvement.
- Consistent monitoring of the key drivers is critical to sustaining these changes.
- Next steps include applying similar improvement strategies to address other patient access and operational metrics such as visit volume, 3rd next available appointments, and no-show rates.

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