Improving Endodontics OT Utilization in NDCS

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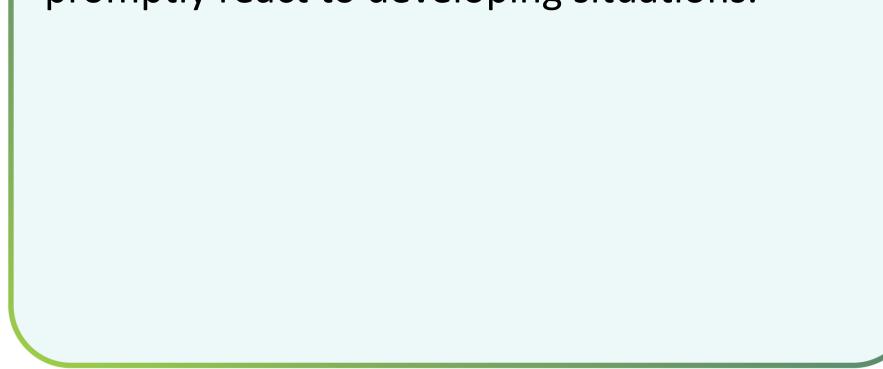
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Problem Statement

Between Jan to March 2021, the average OT utilization across all specialties stands at 61.6% (GA@ 58.5%, LA@ L3 63.5%, LA @L4 60.1%). On top of it, there may not be a standardized formula for tracking OT utilization. OT utilization is tracked monthly and may not be nimble enough for process owners to promptly react to developing situations.
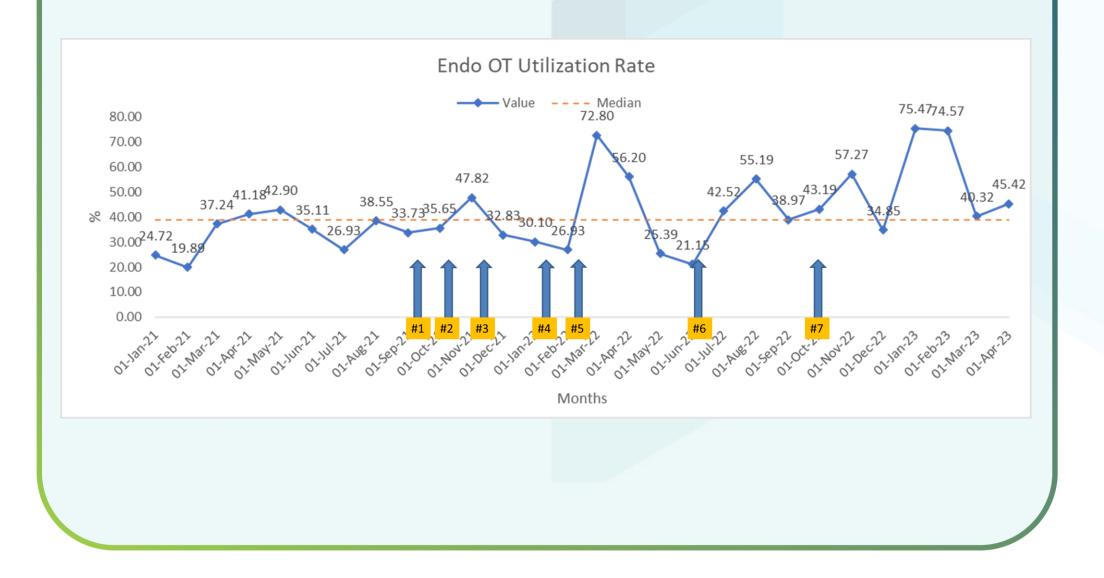
Project Aim

Improve Endo OT Utilization rate to >80% and establish a standardized OT utilization formula across GAOT and LAOT, within 9 months.

Lessons Learnt

We noted that clinicians have different length of experience and pace of performing surgeries, and therefore we try our best to adjust and reshuffle clinicians' sessions so that those who require, can have longer sessions to build up their surgery skillset without being rushed, while the more experienced clinicians can complete more surgery in their allocated time.

Potential Solutions

1. Oct 2021: Reduction from 6 slots to 5 slots
2. Nov 2021: SMS reminder to patients to arrive 15min early
3. Dec 2021: Surgery reminder call to patient, 3 days before surgery
4. Feb 2022: Reduction from 5 slots to 4 slots
5. Mar 2022: Added 1 x PSA to start work at 7.45am to efficiently handle the high morning influx of patients requiring general anesthesia (GA) and local anesthesia (LA). This staff will complement the 7.30am staff to manage the registration process and assist patients in the peak morning queue.
6. May 2022: Book surgeries 2 weeks after DSAF is raised
7. July 2022: Initiation of piloting full session (3 slots with staggered lunch break)
8. Nov 2022: Reduction of 4 slots to 3 slots

Outcomes & Impacts

The department reduced their allocated slots over time, from 6 weekly slots in Oct 2021, to 3 weekly slots in Nov 2022. This helped to reduce wastage and optimize the slots usage. The average OT Utilization rate from Nov 2022 – Apr 2023 stands at 54.7%, while the average OT Utilization rate from Jan – Oct 2022 is 37.7%. The difference is an increase of average OT Utilization Rate for Endo Unit by 17%.

Standardized OT utilization formula

$$OT\ Utilisation = \frac{\Sigma(O_N - O_S + CT) + (T_C - CT)}{Allocated\ hours}$$

LA Session 1: 0800 - 1230

$$\frac{OT\ start\ and\ end\ time}{AM\ 4.5hrs}$$

LA Session 2: 1330 -1730

$$\frac{OT\ start\ and\ end\ time}{PM\ 4hrs}$$

Legend
O_N = OT end time
O_S = OT start time
T_C = Terminal cleaning time
CT = Cleaning Time