

Reducing Laboratory Waste: An Approach to Reducing Unnecessary Gamma Glutamyl Transferase (GGT) Testing in the Inpatient Setting

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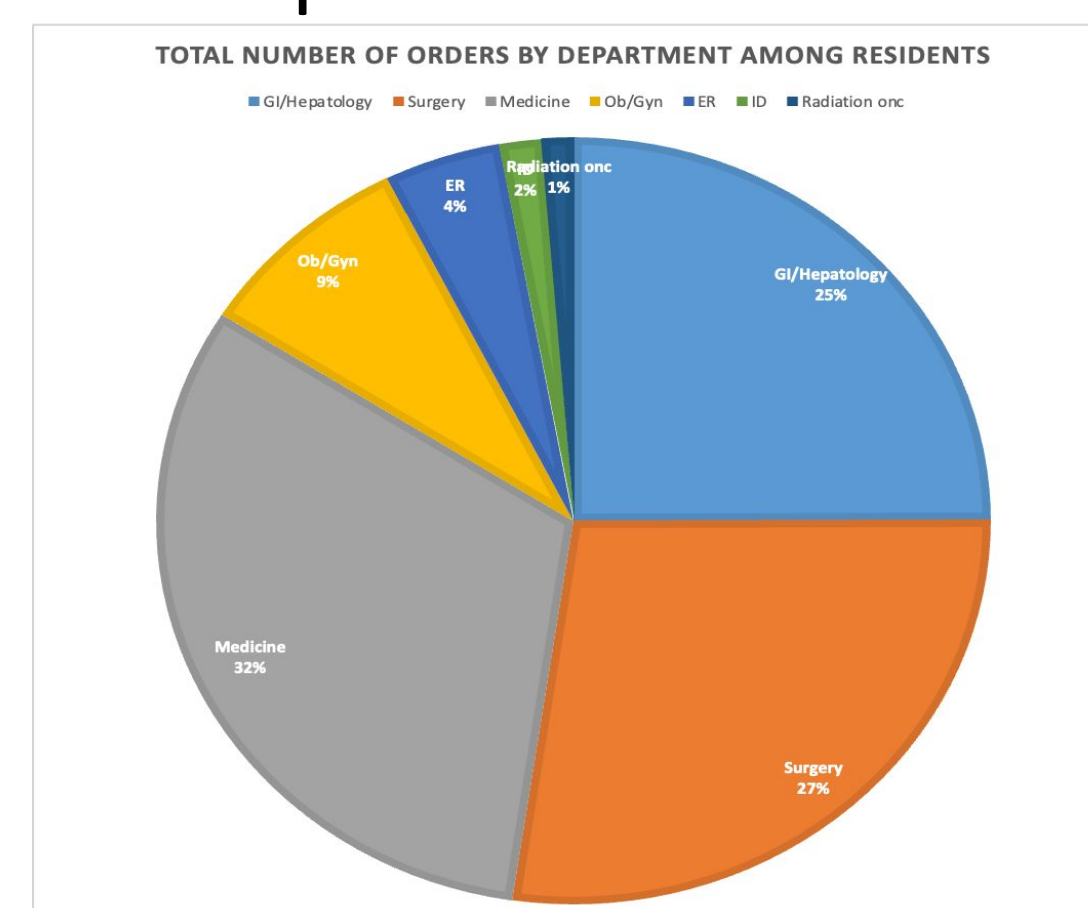
AIM Statement: We aim to reduce the inappropriate testing of GGT for inpatients at London Health Science Centre (LHSC) with the goal of GGT:ALP ratio <0.25 within 6-8 months.

PROBLEM DEFINITION

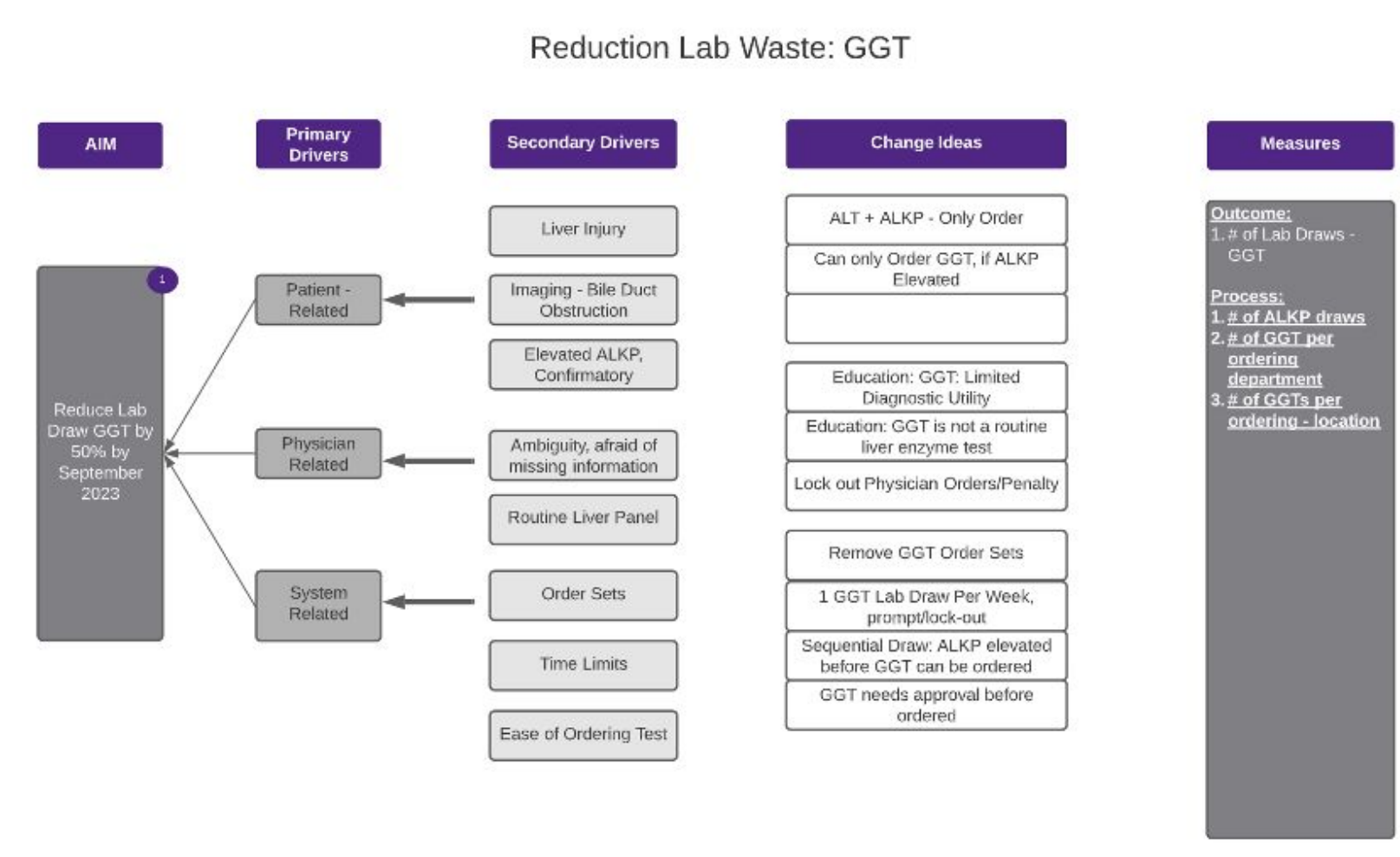
- The literature demonstrates increasing volume of lab tests ordered, however, $\geq 30\%$ are repeated inappropriately
- GGT** is used as a marker for liver dysfunction, biliary pathology, and alcohol consumption
- GGT is often repetitively ordered without adding value to patient care
- Reducing GGT use can improve patient-centred care and mitigate expenditure in a financially-burdened healthcare system

ROOT CAUSE ANALYSIS

- Between September 2022-November 2022, 34,199 GGT orders were placed

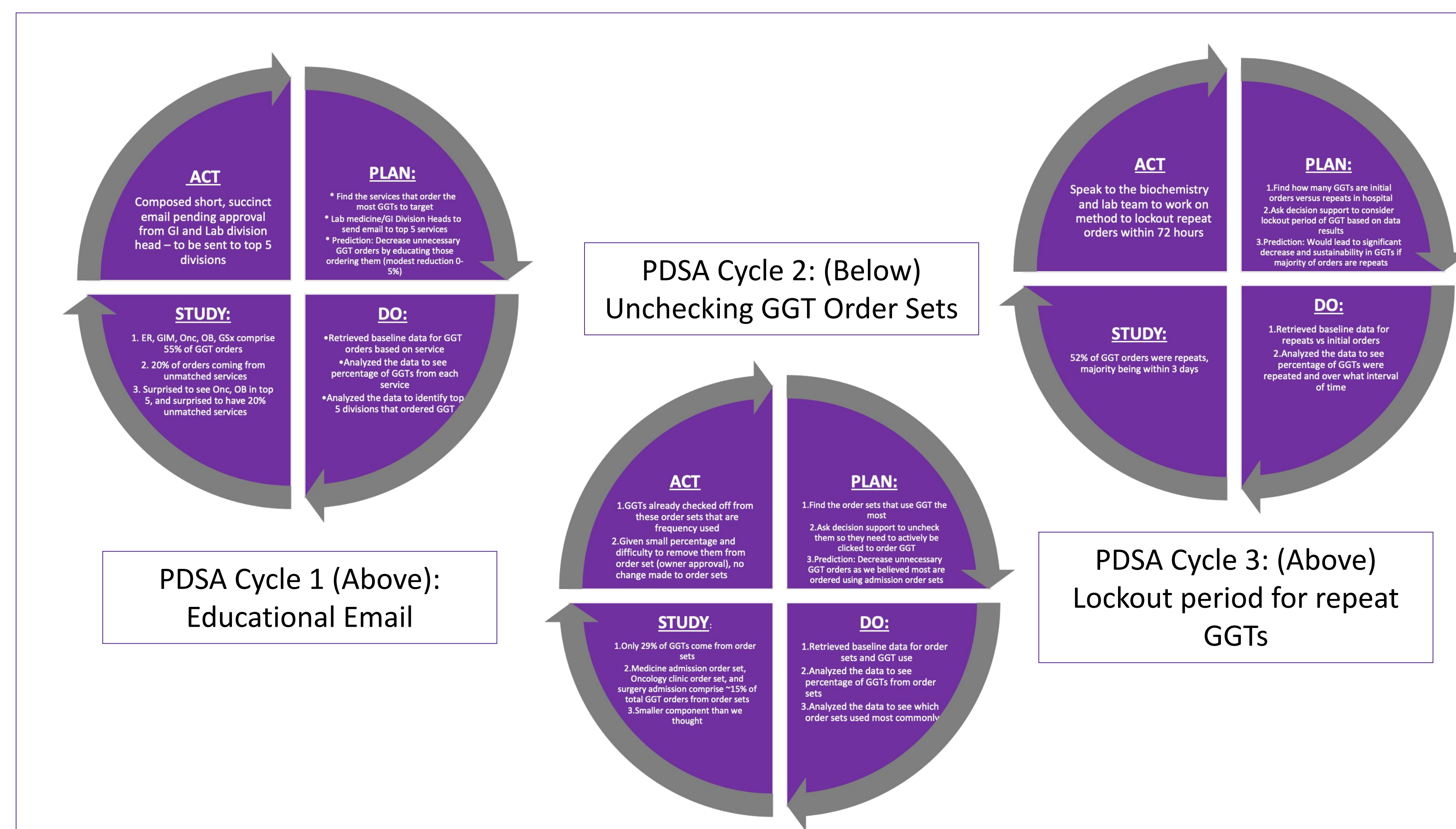


- Baseline data identified the top ordering departments for GGT



- Stakeholders were contacted regarding factors that impact their ordering of GGT

IMPLEMENTATION



MEASUREMENT & RESULTS

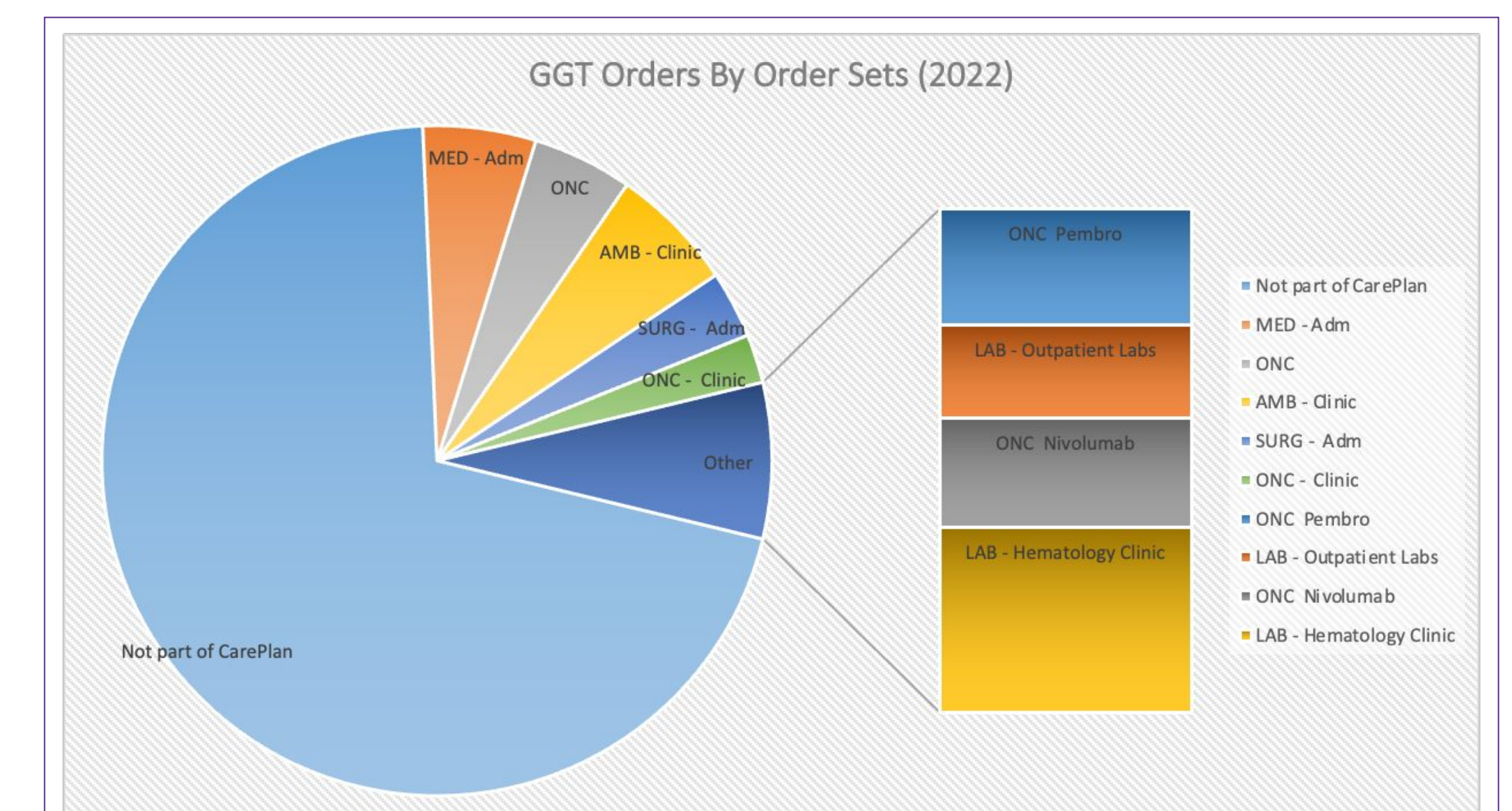


Figure: Pie chart showing number of GGT orders from each LHSC order set in the year 2022.

- No improvement on aim as proportion of GGTs ordered from care plans below expected amount
- Led to exploring repeat orders for GGTs, which may be a more promising and sustainable intervention (pending implementation)

SUSTAINABILITY

- Health care provider education by maintaining sending educational emails for a couple of months.
- With the help of IT and lab, we will be Integrating the new changes to the EMR and keeping a lock-off period on the GGT to remind the people of the importance of this new change.
- Monitoring performance : by collecting and analyzing the data for GGT orders in the next few months to identify if changes are sustained and to identify areas where improvement can be made.
- Provide feedback and recognition: after analyzing future data, we can send some emails with feedback to the healthcare worker in specific department who were following the new changes and those who needs to be reminded of the new changes

Reducing GGT orders via electronic order sets for initial GGT orders is less effective than targeting repeat GGTs. Moving forward, introducing a lockout period may help achieve our GGT:ALP <0.25 goal.