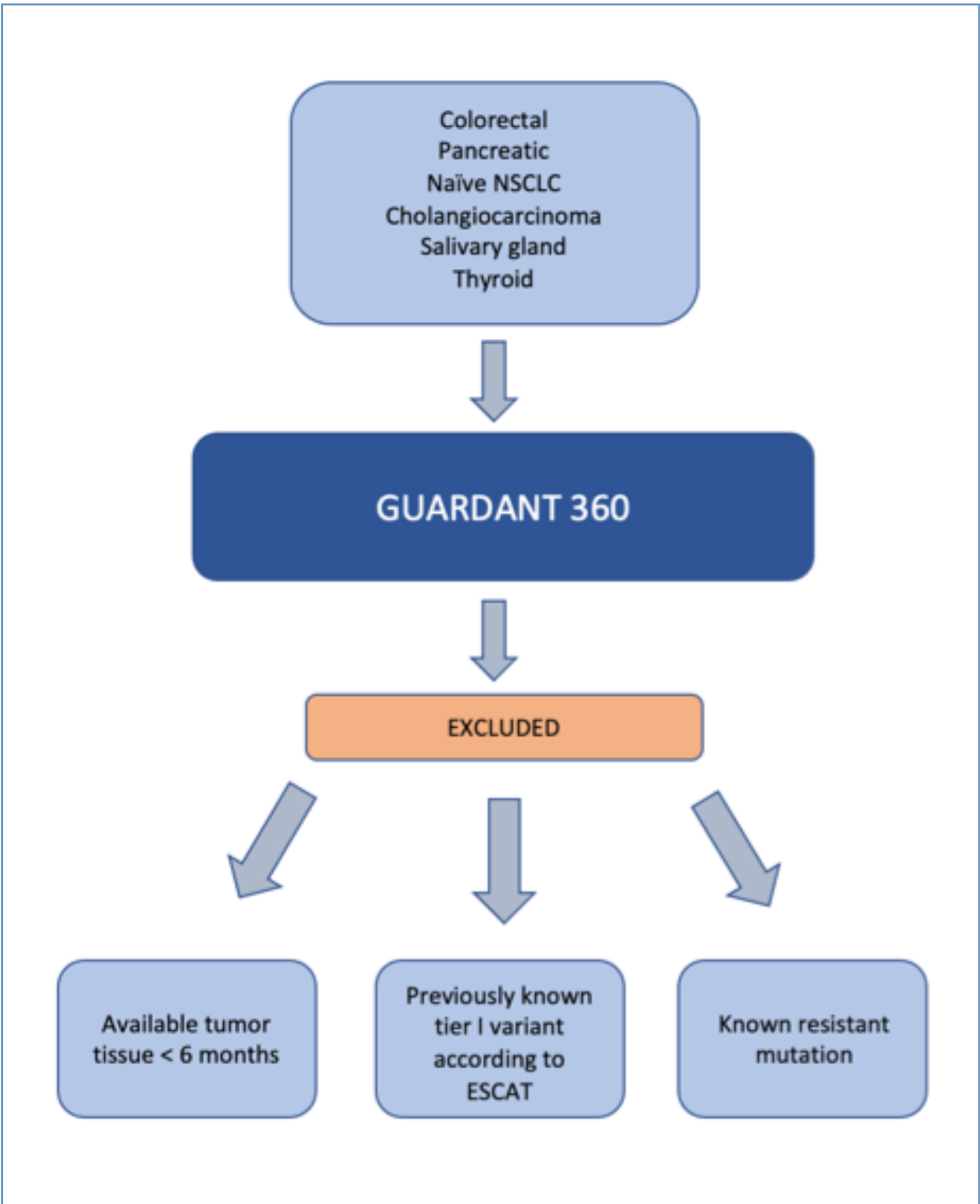


Background

CtDNA NGS analysis has the potential to identify patients (pts) with the appropriate genomic alterations for enrollment in clinical trials (CT), helping overcome challenge of tissue biopsies.

Methods

Guardant360™ (G360) was performed in pts who were candidates for CT at Vall d’Hebron Institute of Oncology. Genomic alteration actionability was classified according to ESMO Scale for Clinical Actionability of Molecular Targets (ESCAT). Our main objective was to analyze the targetable genomic alterations detected from all informative G360 tests, and evaluate pts inclusion in CT.

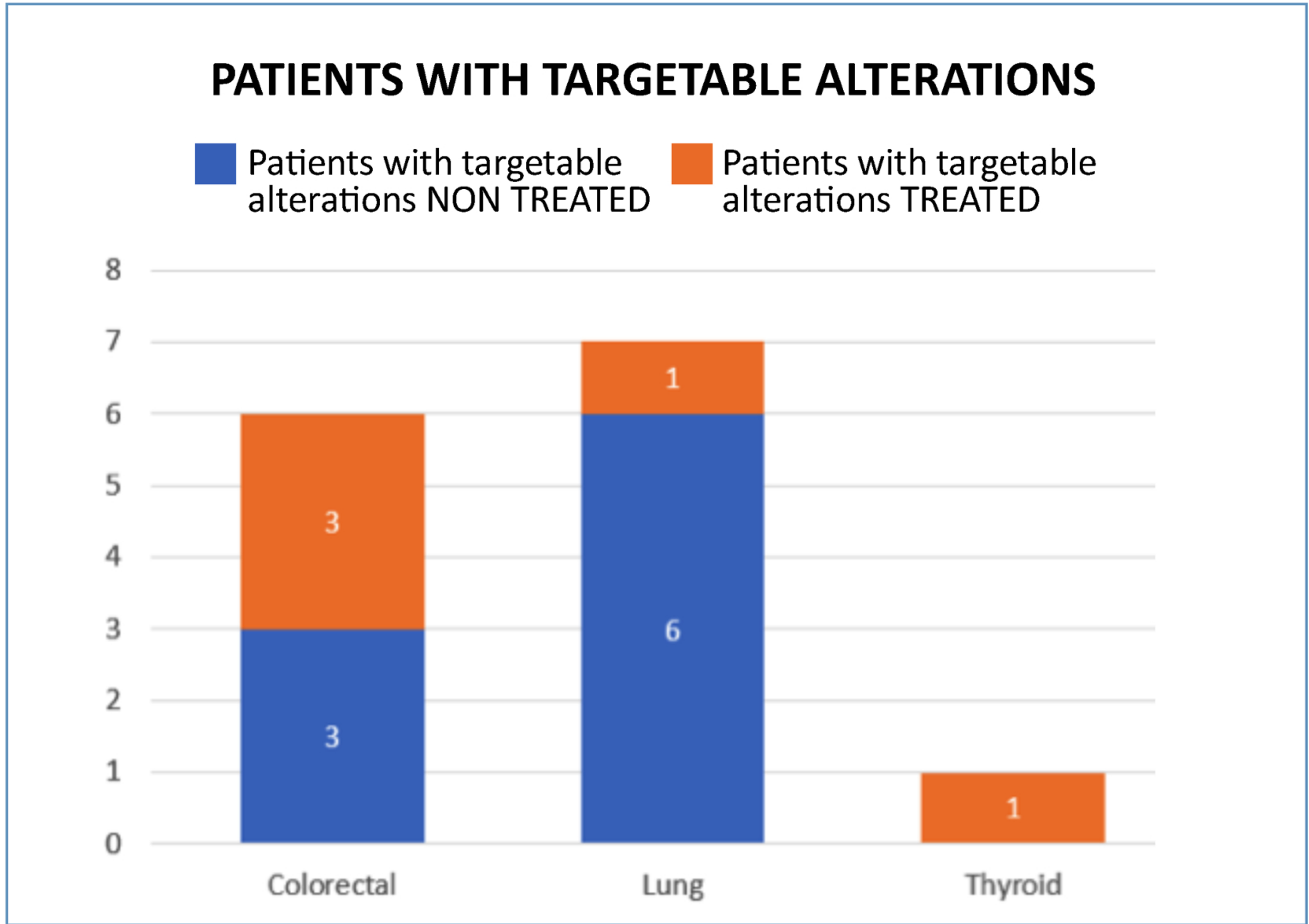
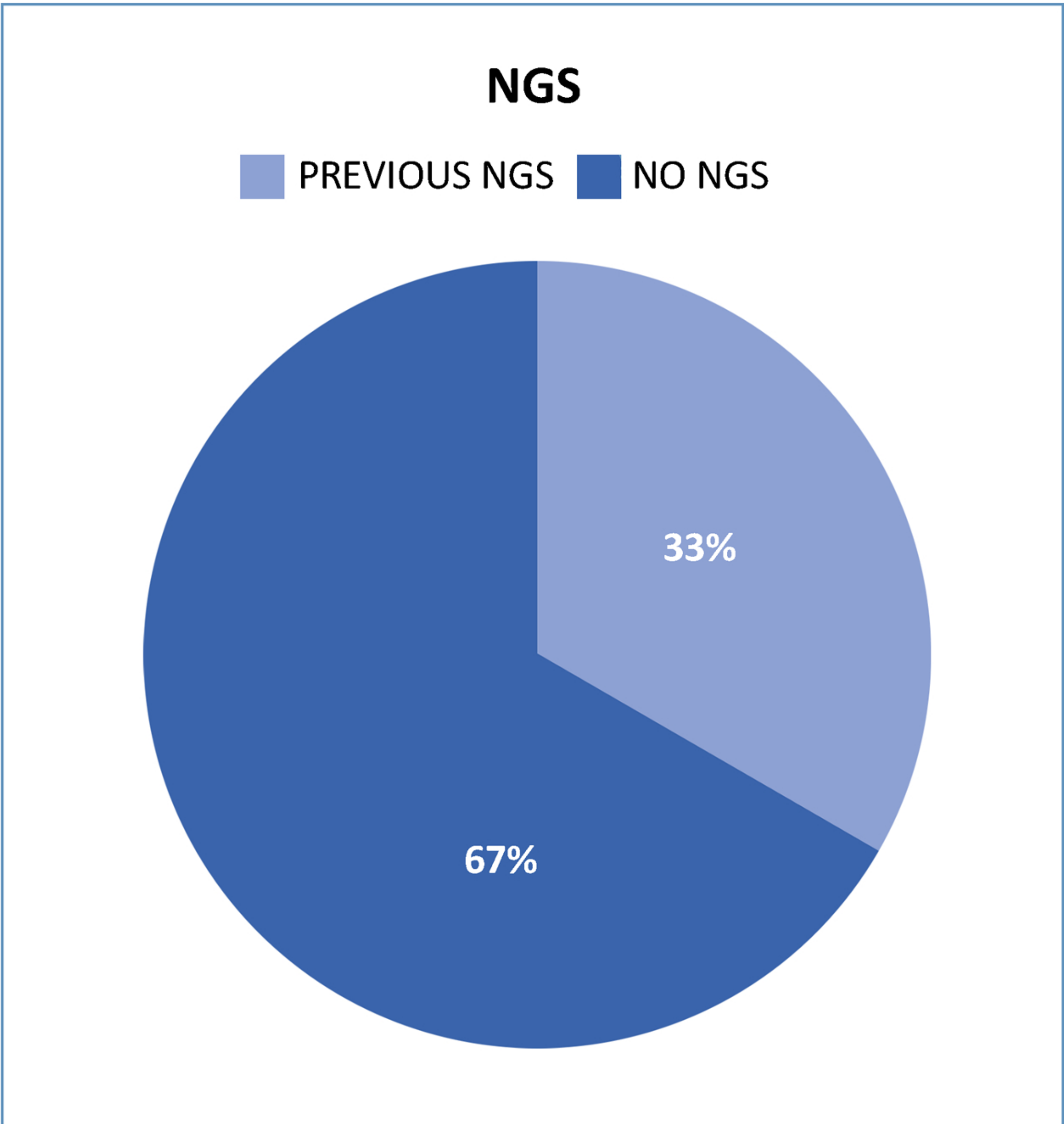
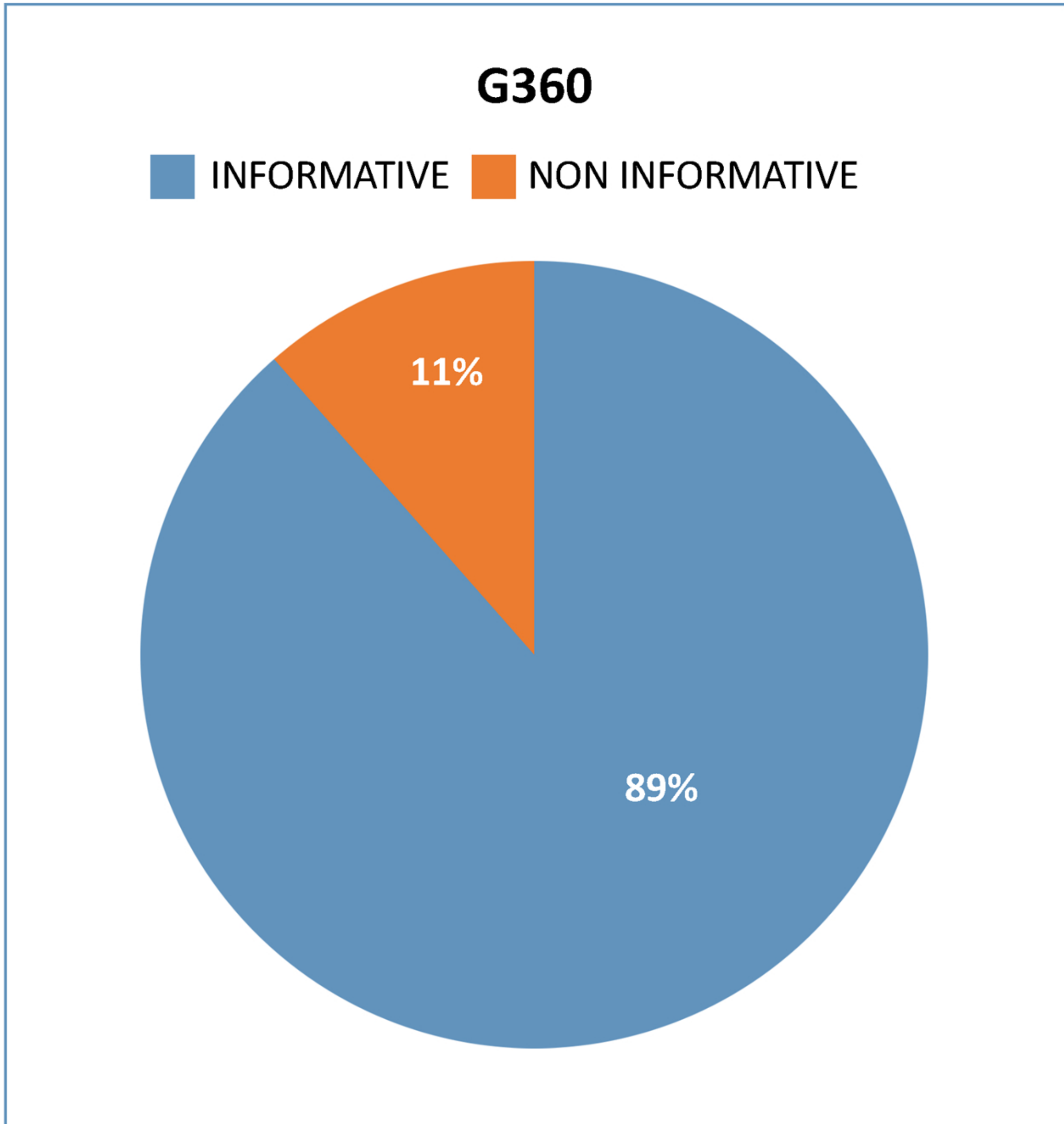
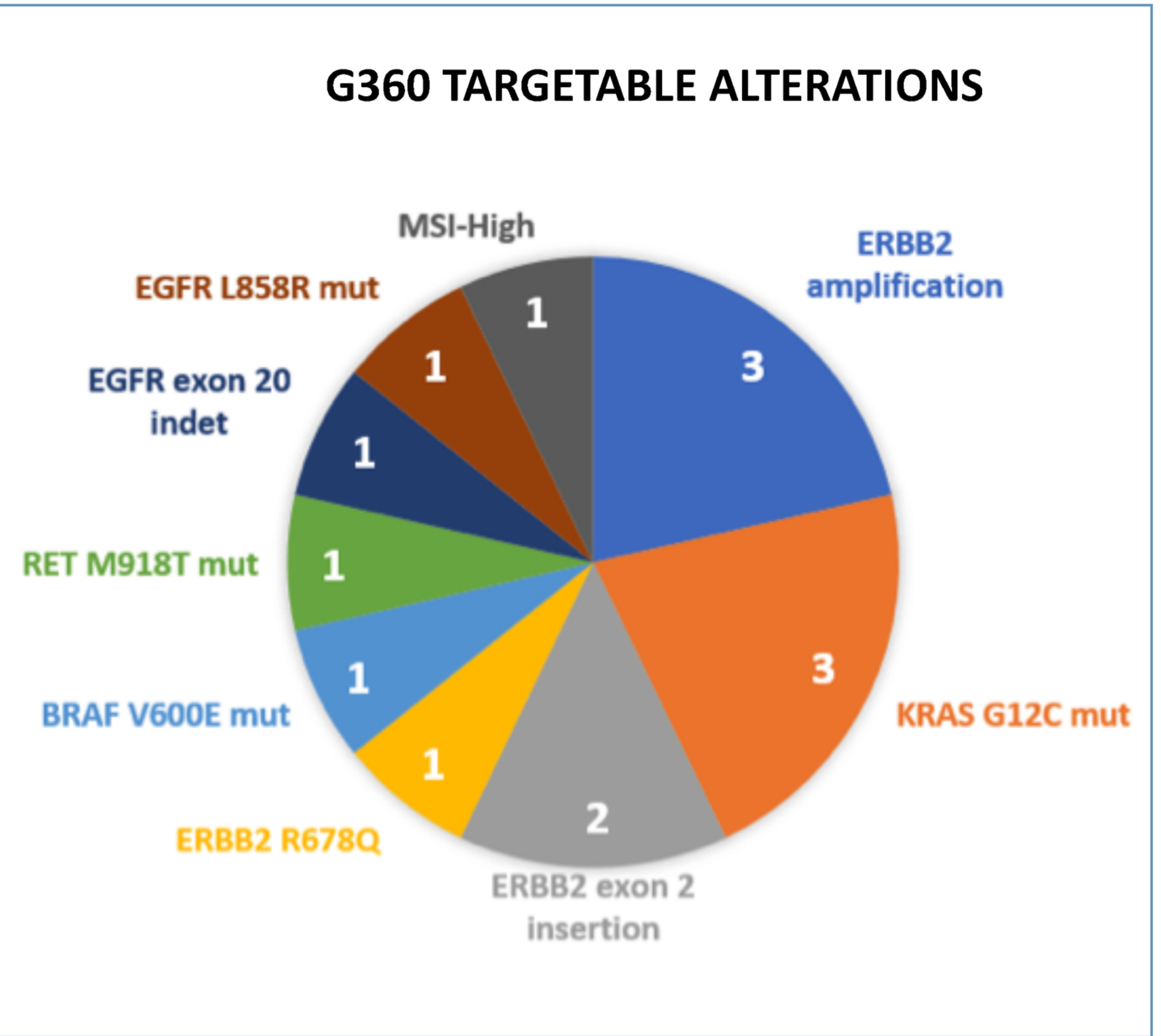
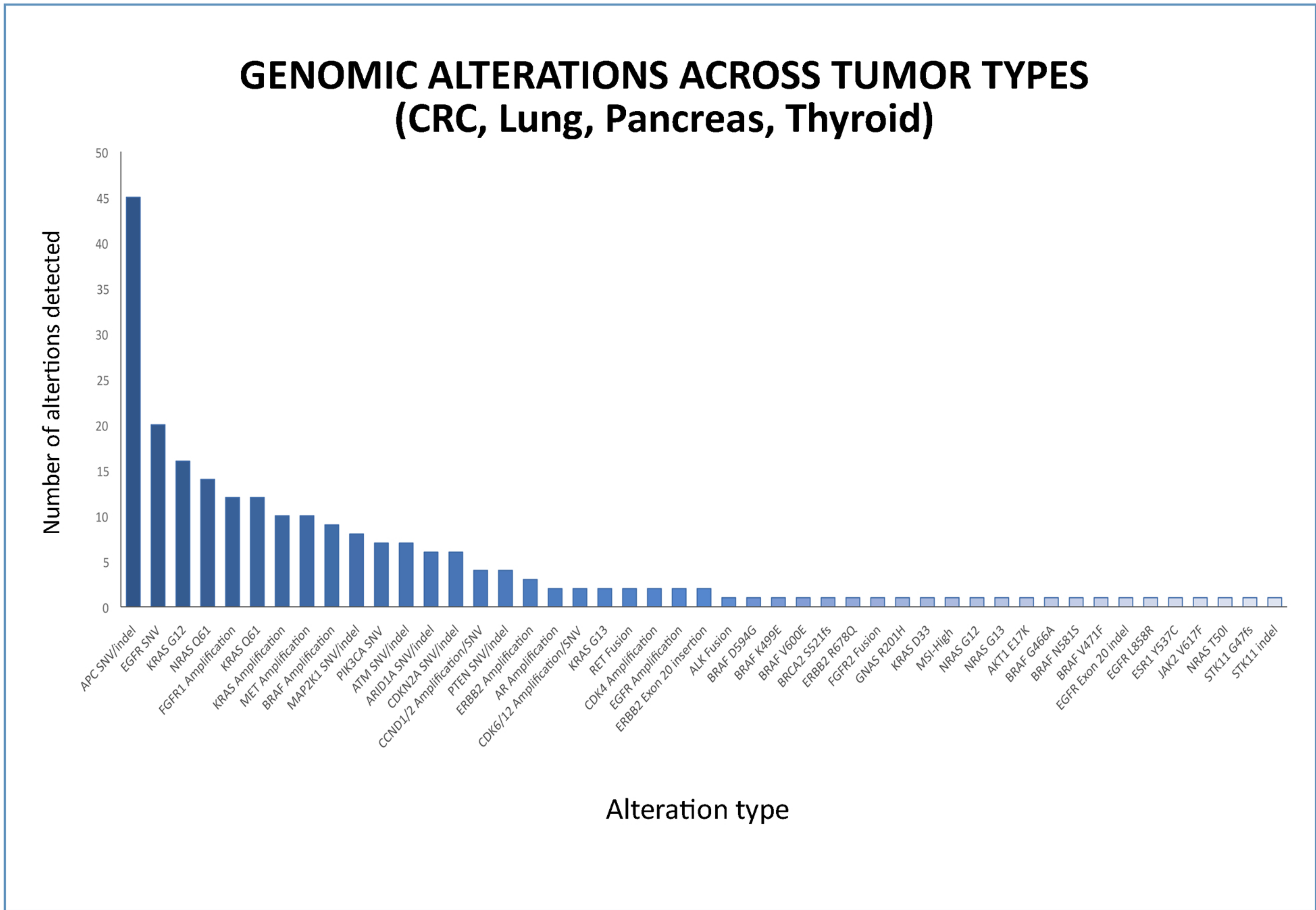


Results

108 patients were included from November 2019 to April 2021. G360 was informative in 96 pts (88,88%) and 36 pts (33,3%) had a previous tissue NGS result. Median Turn Around Time (TAT) for G360 was 8,5 days (7-15).

Patients' characteristics		All N= 108
Age Median (range)		58 (32-83)
Sex		
- Male		51 (47.22%)
- Female		57 (52.77%)
Diagnosis		
- New		31 (28.70%)
- Relapsed		77 (71.29%)
Lines of treatment median (range)		2 (0-7)
Histology		
- Colorectal		52 (48.14%)
- Pancreatic		30 (27.78%)
- NSCLC		17 (15.74%)
- Salivary Gland		4 (3.70%)
- Cholangiocarcinoma		2 (1.85%)
- Thyroid		2 (1.85%)
- Parathyroid		1 (0.92%)

Potentially targetable alterations were identified in 14 pts (14,58%); 5 pts (4,16%) with tier I variants and 9 pts (9,37%) with tier II variants. 5 pts (5,20%) received treatment based on the G360 report. 4/5 pts were treated in a CT, and 3 pts achieved a partial response. We identified 46 tier III variants that could be potential targets in phase 1 trials. Moreover, 22/52 pts (42,30%) with CRC showed RAS resistant mutations to anti-EGFR therapies.



Conclusions

G360 has a short turnaround time and is able to identify targetable alterations in patients with unknown genomic drivers. NGS of ctDNA can optimize CT recruitment.

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DISCLOSURES

The principal author declares no conflicts of interest.