

IMPROVING PATIENTS' EMPOWERMENT THROUGH SELF-ADMINISTRATION OF SUBCUTANEOUS GCSF (GRANULOCYTE COLONY-STIMULATING FACTOR) INJECTIONS



SAFETY
QUALITY
PATIENT EXPERIENCE



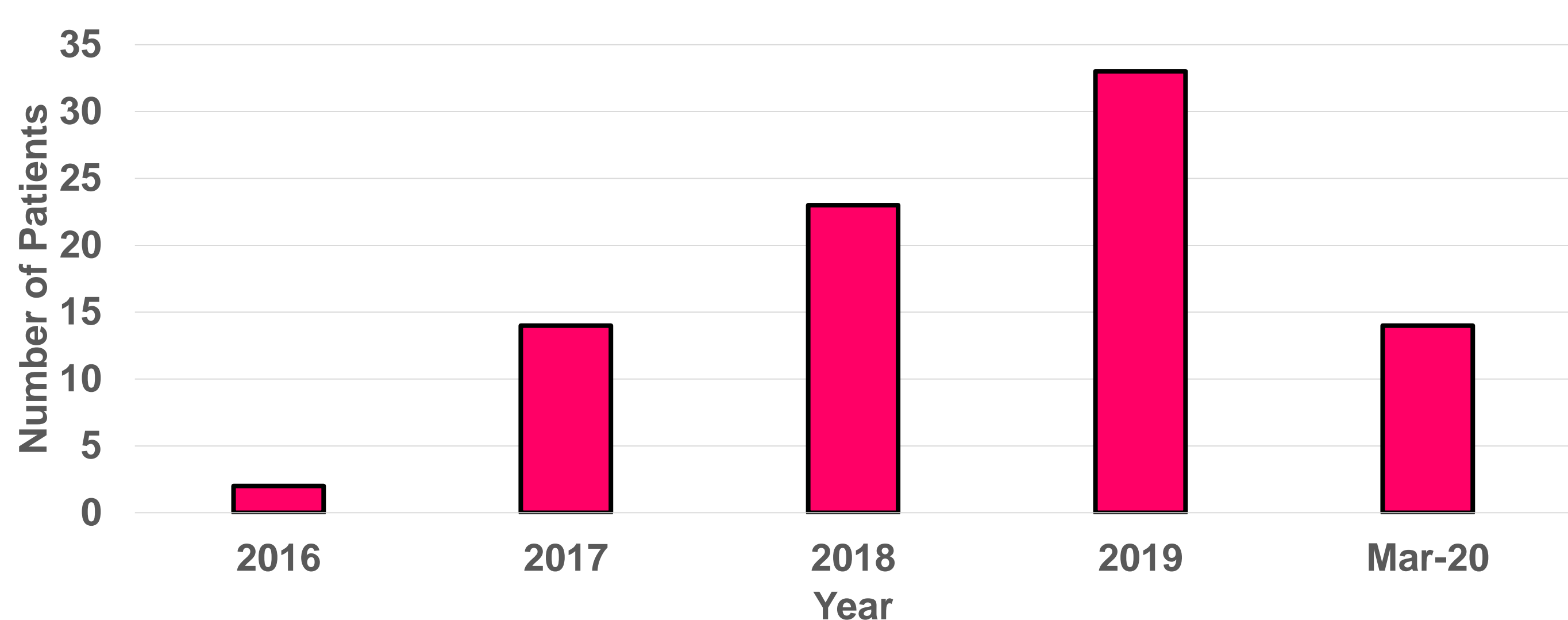
PRODUCTIVITY
COST

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Define Problem, Set Aim

Problem/Opportunity for Improvement

Since the opening of our Chemotherapy Unit in NTFGH in Year 2015, the number of patients who require subcutaneous GCSF injections to prevent neutropenia has increased.



Aim

The aim of this study is to reduce the number of returning patients for GCSF injections.

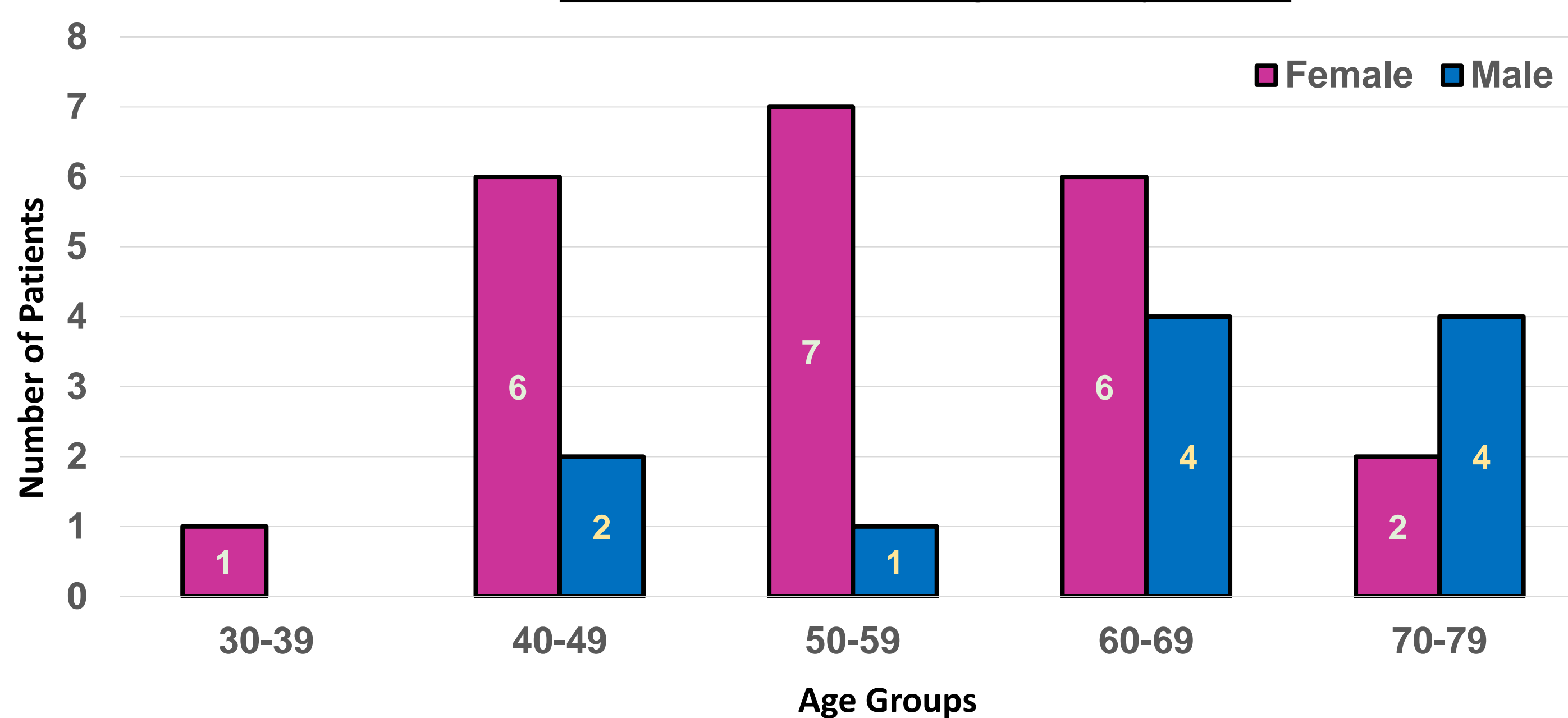
Establish Measures

Upon commencement of GCSF therapy, we will educate the patients / caregivers on self-administration. Patients can also choose to go to their nearest general practitioner (GP) / polyclinics for their injections.

Analyse Problem

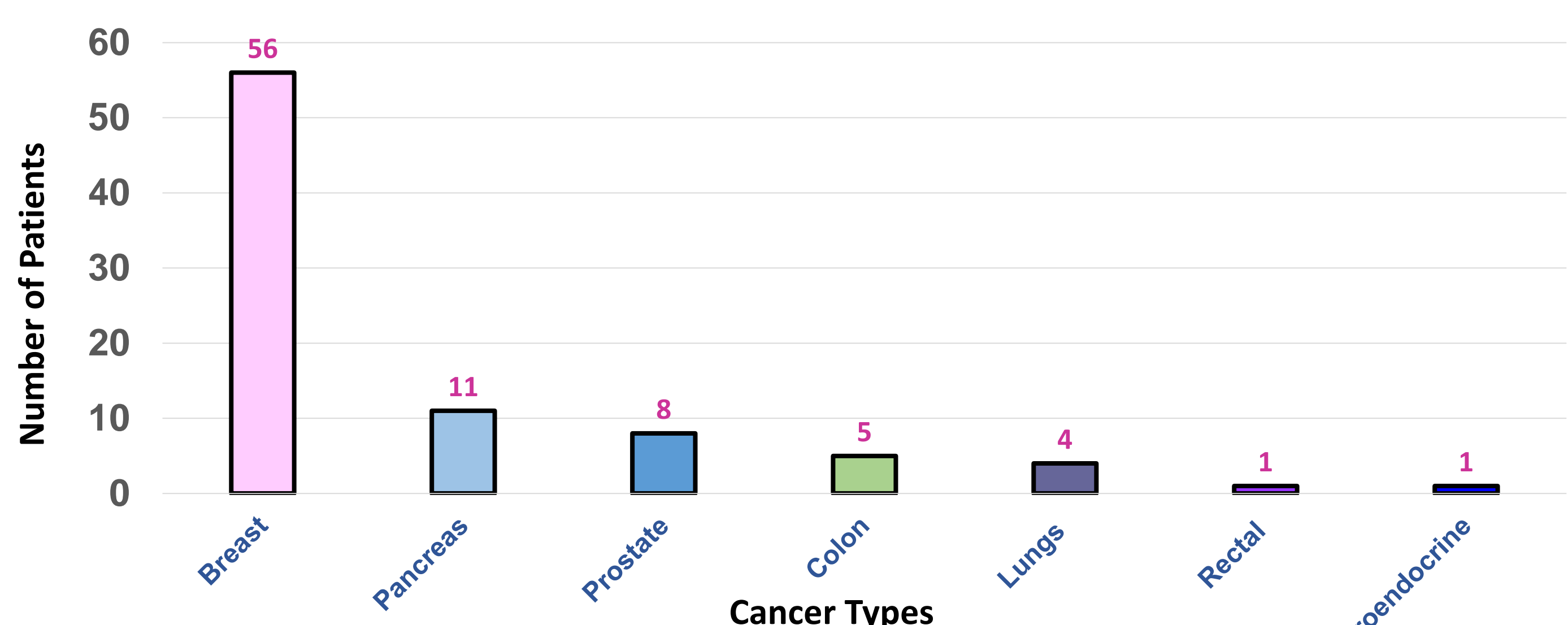
In view of the current pandemic situation, the number of subjects extracted from 1 April 2019 to 31 December 2020 was limited. Thus, the retrospective data was extracted back from April 2016 to March 2020 from the JHC (JurongHealth Campus) Non Research Data Extraction System. There was a total of 86 patients who required GCSF injections. The data was then categorised according to their gender, age groups, tumour sites, patients / caregivers who self-inject or by GPs / polyclinics.

Patients Performing Self-Injection



30% of the patients who did self-injection were aged 60-69 and 18% were aged 70-79.

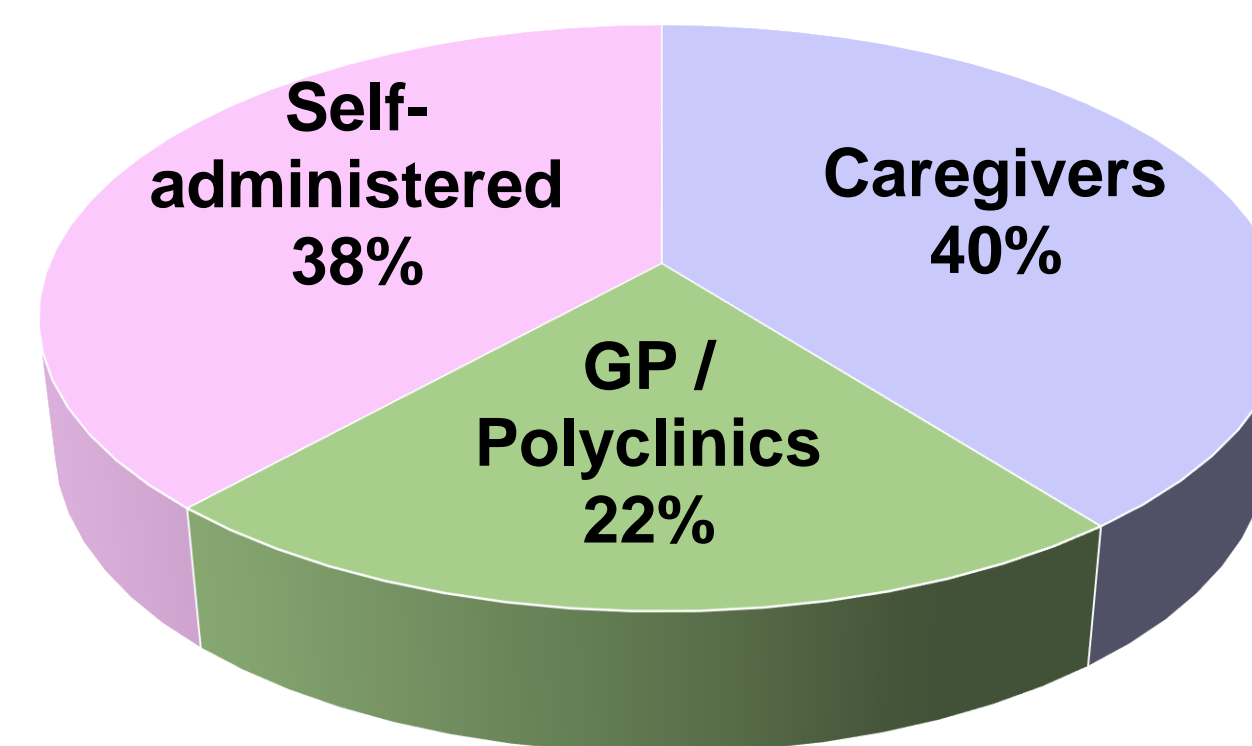
Types of Tumour



Majority of the patients who needed subcutaneous GCSF injections were breast cancer patients.

Analyse Problem

Administration Method



Of the 86 patients, 38% did self-injection, 40% by their caregivers and the remaining 22% chose to go to GPs / polyclinics.

Select Changes

What are all the probable solutions? Which ones are selected for testing?

As the number of patients increased rapidly, we started a trial to educate the patients / caregivers on GCSF self-administration technique.

Test & Implement Changes

PLAN	DO	STUDY	ACT
What is the aim of this cycle? What do you need to do before you execute the test change? (Who, What, Where, When)	Was the test change carried out as planned? What are the feedback & observations from participants?	What are the results? Use run charts to illustrate. What did you learn from this cycle?	What is the conclusion from "Study"? What is your plan for the next cycle (adopt / adapt / abandon)?
Aim: To plan an educational demonstration session on GCSF self-injection technique for the patients / caregivers.	The teaching of GCSF self-administration technique was only conducted for patients / caregivers in the beginning. After running the trial for a month, we changed to implement the educational demonstration session upon every patient's commencement of their GCSF injections to increase their participation rate. 78% of the participants (patients and caregivers) felt empowered to administer the GCSF injections themselves, whereas the remaining 22% chose to go to their GPs / polyclinics.	Evaluation of the effectiveness of patients' self-injection or injection by caregivers: - No reported complication (e.g. bruise or swelling) from patients after injection - Good outcome: Nil patient returned to our clinic for GCSF injection post education	- To implement the educational demonstration session to all patients undergoing GCSF injections upon commencement of their chemotherapy sessions - Sustainance of the educational demonstration sessions since the commencement

Spread Changes, Learning Points

What are/were the strategies to spread change after implementation?

Early education of self-administered GCSF is the key strategy to empower patients in their knowledge and self-care, regardless of their age, gender or type of cancer.

What are the key learnings from this project?

Early education to equip patients with the skill of self-injection proves to be paramount to empower their confidence that none of them need to return to our clinic for GCSF injection post education.

Ultimately, patients recognise the benefits outweigh their initial fear of self-injection. Trust in our nurse-patient partnership was also built and strengthened during their on-going management.

Furthermore, it reduces caregivers' burden, injection administration costs / time and unnecessary exposure for this vulnerable group.

With the reduction of clinic technical visits, the aim of this study has also been fulfilled.