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Calculation of Average Waiting Time from Diagnosis till Surgical Intervention for Minor and Day Case General Surgical Procedures

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1. Introduction

Waiting period for elective surgery is a major health concern for major commonwealth countries. Waiting periods for elective healthcare services have been a policy concern in most developed countries' health systems. Many nations have made efforts to reduce surgical wait times despite limited resources. These efforts encompass streamlining the process from consultation to the actual procedure. They can provide an opportunity for policymakers to make necessary adjustments to enhance the appropriateness, responsiveness, and efficiency of healthcare delivery [1]. Ultimately, these adjustments aim to create health systems that are more focused on meeting the individual's healthcare needs effectively. Various Initiatives are introduced to reduce the waiting period with varying success. Ensuring timely access to elective surgical care in publicly funded healthcare systems remains a significant challenge. The analysis on time trends serves to identify countries that have successfully and significantly reduced waiting times. 'Surgical wait time' refers to the time from the decision to operate to the operation itself, however, this definition only accounts for a fraction of the actual wait time experienced by the patient [2]. A more realistic model might begin at a patient's first visit to a health care provider followed by their referral to first clinic visit, diagnosis and ultimately only the last component will be the decision to perform surgical operation. As strategies are implemented to decrease wait times, it will become increasingly important to monitor the entire wait time from referral to operation because the time prior to the decision to operate represents a significant portion of the wait time and when current wait times are compared to those in the future, it will be useful to see which component of the wait is increasing or decreasing and how this is related to the wait time strategies implemented at the provincial and institutional level [3] . Waiting lists may have positive benefits. In the face of scarce resources, rationing by waiting may be considered preferable to rationing by price. Time spent waiting might allow recovery to occur without surgical intervention. Waiting lists permit efficient use of resources and enable scheduling to ensure a balanced case load. On the negative side, waiting for treatment which has already been judged clinically necessary may be considered unacceptable, conditions may deteriorate during the wait and waiting may cause considerable pain and distress.

Average waiting time from day of surgical decision till date of surgery is reported between 30-57 days in different series. Delays are reported by 16.8% of patients; most common delays are operating room cancellations/time constraints, patients requiring further optimization and delays in referral (4.7%, 3.4% and 3.1%, respectively) [4].

We did an audit in our department to calculate the waiting time from diagnosis till surgical intervention for minor and day case general surgical procedures form from Jan 2022 till June 14 2023 (Chart-1 and 2).

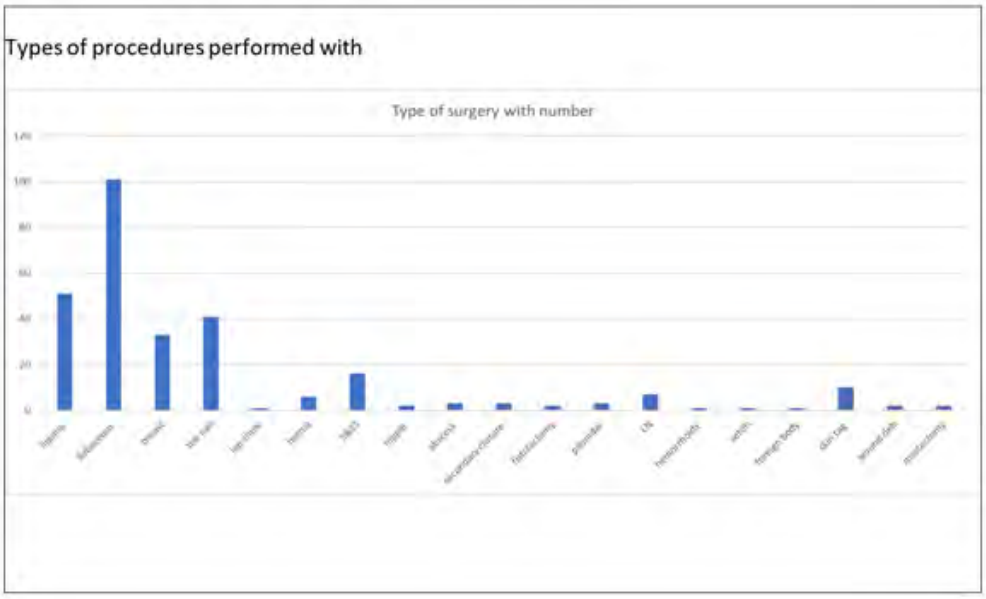

Chart 1: Different procedures performed are represented

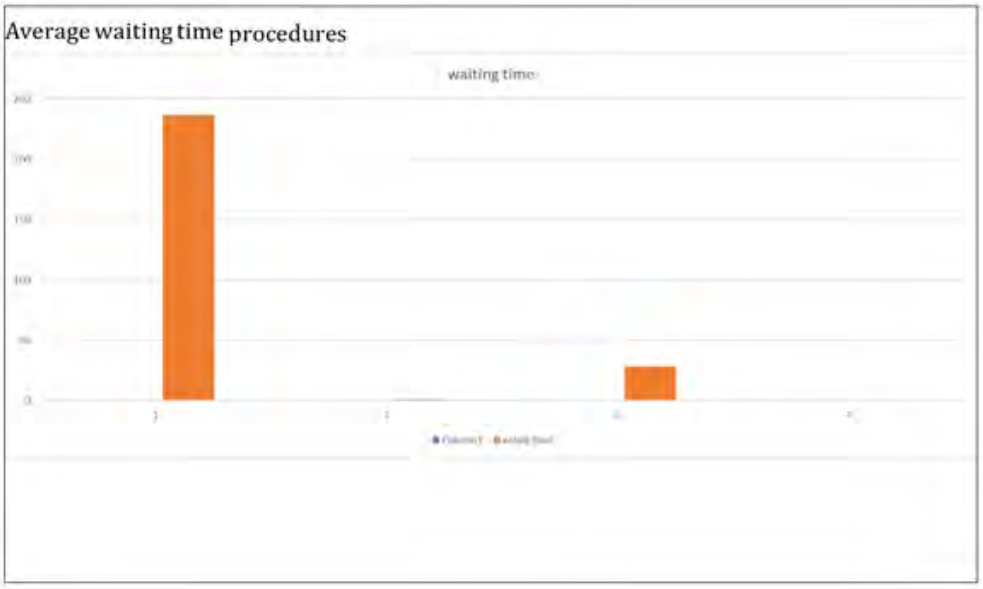

Chart 2: Average waiting time for all procedures is presented

2. Methodology

2.1. Data Collection Method: Retrospective from the electronic medical record system.

2.2. Population & Time Period: All patient who had minor and day case general surgical procedures between Jan 2022 till June 14 2023

2.3. Exclusion Criteria: Emergency cases

2.4. Project Sample Size: 80-100

2.5. Sample Selection: Convenient sampling

3. Results

Total 286 cases were operated from jan 2022 till June 14 2023.

List of cases operated is as follows:

- Hernias, inguinal and umbilical
- Mastectomies, subcutaneous for gynecomastia
- Lipomas
- Hemorrhoids
- Fistula in ano
- Fissure in ano
- Pilonidal sinus
- breast lumpectomies
- Excision of accessory breast
- Excision breast biopsies
- Secondary closures
- Wound debridement

- Toe nails
- Abscesses
- Nipple surgeries
- Skin tag
- Lymph node biopsies

The average waiting time for all procedures was 28.6 days, which is lower than the reported range of 30-57 days in the literature. The largest waiting time of 237 days for two patients was attributed to pregnancy and bronchitis. While other delays occurred due to personal reasons, delays in imaging appointments, and staff shortages. Patient selection criteria were established for day case surgeries, and future plans include expanding the range of procedures performed in the day care unit to include laparoscopic cholecystectomy, lumpectomy, sleeve gastrectomy, and other hernia types. With an average waiting time of only 28.6 days, our facility has consistently outperformed the reported range of 30-57 days found in the literature, indicating an efficient and streamlined process for patients seeking surgical procedures. We had two delayed procedures due to one of the patients becoming pregnant and the surgery was done in the second trimester. Another patient had bronchitis and that delayed the surgery until he was vitally stable.

4. Discussion

Although surgery waiting time cannot be eliminated it can be improved. After analyzing the waiting time for a total of 286 procedures, the average time was lower than the ranges reported in literature. This shows the efficacy of the efforts put in to reduce the waiting time and if continued there can be significant changes in the healthcare system. The different strategies mentioned have proved their positive impact in improving the wait time and with the cooperation of multiple sectors in healthcare, waiting time can be drastically improved for the patient's benefit as well as the healthcare systems. Numerous strategies were found and have been shown positive evidence of their effectiveness in reducing the wait time [5], some of which include encompassing expanded roles for non-physicians, process improvement methodologies, publicly funded surgeries in private facilities, same-day surgery and discharge, standardized treatment pathways, streamlined pre-admission processes, targeted funding, centralized elective surgeries, centralized surgical scheduling, efficient use of operating rooms, family doctors-led surgeries, fast-track programs, patient choice, mobile surgical clinics, organization incentives, appointment reminders, cancellation lists, flex days, and innovative surgical approaches have been implemented to reduce wait times for elective surgeries, each showcasing varying degrees of success and impacts[6] . These approaches have collectively addressed the challenge of lengthy wait times for elective procedures in healthcare systems, ultimately streamlining processes and improving patient access to timely care [7].

Reducing waiting times for elective surgeries is a complex challenge that demands a holistic approach, underscoring the critical importance of assembling a multidisciplinary team encompassing various specialties and involving all sectors of healthcare. Collaboration among professionals from different fields, including surgeons, nurses, anaesthesiologists, and administrative staff, is vital in optimizing the surgical process. This collaborative effort streamlines pre-operative assessments, surgery scheduling, and post-operative care, ultimately resulting in shorter waiting times for patients [8]. Moreover, it allows for the efficient allocation of resources and expertise, enabling healthcare systems to meet the growing demand for elective surgeries and enhance the overall quality of patient care [9].

5. Conclusion

Waiting time is an increasingly popular measure of health care delivery and is one of the key performance indicators for a health care system. Currently, 'surgical wait time' often refers to the time from the decision to operate to the operation itself, however, this definition only accounts for a fraction of the actual wait time experienced by the patient [10]. Delaying treatment has unfavourable effects on patient outcome. Our Average waiting time for day case surgeries is acceptable as per international standards for general surgical day case procedures. Establishment of one step clinic with anaesthesia and other teams to expedite the evaluation and optimization of patients for day case can further attempt to reduce waiting time and patient anxiety as is Involvement of fast tract services with radiology and other specialties when needed to expedite the process of preparation of patient for safe day case surgery. Day case units should have senior experienced staff available for patient admission and assessment before discharge. More complex cases can be included as day cases in future provided above requirements are met.

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