

CATARACT SURGERY WAITING TIME FOR DAY CARE OPERATION THEATRE IN UNIVERSITY OF MALAYA MEDICAL CENTRE

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Abstract

Objective: To ascertain if the current standard for cataract surgery waiting time of 12 weeks or less in the UMMC Day Care Operation Theatre (OT) is > 80% met; and to identify the causes and possible measures to be taken if the standard is not met.

Design: Retrospective analysis of patients' medical records.

Methods: The medical records of all patients who underwent cataract surgery in the Day Care OT between 1st October to 31st December 2017 were analysed.

Results: A total of 230 patients underwent the surgery and from these, 219 patients were included. Only 63% of patients had a waiting time less than 12 weeks while 81.7% waited less than 16 weeks for the surgery. The common reasons found for the long waiting time were limited OT slots for cataract operations (71.6%), blepharitis (6.2%), uncontrolled co-morbidities (5%), patient requests (4.9%), financial problems, heart and lungs problems (1.2% each).

Conclusion: Out of 219 patients included in this audit, 63% underwent cataract surgery at our centre within 3 months. Of those who waited more than 3 months, 72% were due to limited OT slots. Further interventions should be carried out to improve the surgery waiting time and hence increase the quality of health services in the country.

Keywords: Audit, Cataract Surgery, Malaysia, Waiting Time

Introduction

Cataract is the leading cause of visual impairment worldwide (1). According to the Malaysian National Eye Survey (NES), NES I and NES II done in 1996 and 2014, cataract was the main cause of blindness, accounting for 39% and 58.6% of cases respectively (2, 3). Cataract was also reported to be the major cause of low vision among the Malaysian population (3). Since cataracts are the major cause of curable blindness, measures should be taken to make surgery easily available in our effort to reduce blindness and other cataract-related morbidities.

Cataract surgery is the commonest procedure performed in the ophthalmology department (3, 4). It is the most cost-effective medical intervention to reduce the burden of blindness (5). Generally it has low complication rates and it improves vision rapidly in the majority of cases (1). Most cataract surgery cases are performed as a day care

procedure where patients are allowed to go home soon after the operation.

Following advancement in technologies, the rate of cataract surgery has increased significantly in Western countries for the last 20 years with better surgical outcomes (6). In Malaysia, a steep rise has been reported in phacoemulsification cataract surgery from 39.7% in 2002 to 78.0% in 2011 (7). Following an increase in the number of cataract cases, the demand for cataract surgery has exceeded its availability (1). Hence, measures should be continuously taken to ensure that cataract surgery services will be able to meet the demand for it.

The long waiting time for cataract surgery has been a recognized issue globally. Although a majority of the population are aware of the waiting time, many are still not happy about it especially in countries with publicly funded healthcare systems (4). In England, the National Health

Service maximum waiting time for non-urgent treatment is 18 weeks (6).

In Malaysia, waiting times in different hospitals may vary according to the resources available in each hospital and whether the hospitals are public or private. To the best of our knowledge, this is the first study done on waiting time for cataract surgery in a Day Care Operation Theatre (OT) in a university-based hospital in Malaysia, based on the results of our PubMed database search with the keywords "cataract, cataract surgery, waiting time, Malaysia".

Current standards

The Key Performance Indicator (KPI) from Ministry of Health Malaysia in 2008 for cataract surgery waiting time requires that > 80% patients have been given appointment for cataract surgery within 16 weeks as their standard or optimal target (8). At present, no official guidelines exist for acceptable rates of cataract surgery waiting time in UMMC. For the purposes of this audit, we have set a target of waiting time less than 12 weeks for > 80% of patients listed for cataract surgery.

Objective

To ascertain if the current standard for cataract surgery waiting time of 12 weeks or less in the Day Care OT UMMC has been met in > 80% of cases; and to identify the causes and possible measures that can be taken if the standard is not met. Waiting time is defined as the time from when a patient was listed for cataract surgery until the day of surgery itself.

Materials and Methods

A retrospective study was done on patients who underwent cataract surgery in the Day Care OT, UMMC from 1st October 2017 to 31st December 2017. Informed consent was taken from all participants. Information regarding patients' registration number, date when the patient was listed for cataract surgery, date when the surgery was performed and any causes for delay in surgery were recorded. All data were traced back from patients' notes in the hospital electronic medical record. The inclusion criterion was all patients who underwent cataract surgery in Day Care OT between 1st October 2017 to 31st December 2017. All patients with missing information regarding the date when they were listed for cataract surgery, were excluded from the study.

Results

From a total of 230 patients who underwent cataract surgery in Day Care OT UMMC between October 2017 and December 2017, 219 patients were included in this audit. 11 patients were excluded due to missing data about when they were listed for cataract surgery. In October and November, there were 80 patients who underwent

cataract surgery in each month while in December there were only 59 patients.

From the 219 patients included in this audit, a total of 138 patients (63%) waited less than 12 weeks while 81 patients (37%) had to wait for more than 12 weeks for their cataract surgery. Further breakdown for each month showed 68.8% patients waited less than 3 months in October, 67.5% in November and 49.2% in December 2017.

Among the 81 patients who had to wait for more than 12 weeks, the majority of cases were due to limited OT slots which contributed to 71.6% of the population. This was followed by presence of blepharitis (5%) which is a condition associated with a higher risk of endophthalmitis, patients' own request to postpone the surgery (4%), uncontrolled blood sugar (2.5%) and uncontrolled hypertension (2.5%). The other reasons were financial problems, new-onset heart disease and upper respiratory tract infection which made up 1.2% of the population for each category.

Discussion

From this audit we found that 63% of patients waited less than 12 weeks while 37% of patients had to wait more than 12 weeks before undergoing their cataract surgeries. This showed that more than half of the listed cataract patients underwent surgery within the recommended duration set by the Department of Ophthalmology, UMMC. However, this fell short of the > 80% target standard set by the department.

When compared with the key performance indicator (KPI) from Ministry of Health Malaysia in 2008 where cataract surgery waiting time should be within 16 weeks in > 80% of cases, our results showed that we have exceeded the national KPI where 81.7% of our patients had a waiting time of less than 16 weeks during the audit period.

Previous studies have shown that waiting time is significantly shorter in countries with high health expenditures while countries with public health care systems have longer waiting times mainly because of limited public resources (4). A survey conducted in ten European countries showed large differences in waiting times for cataract surgery. Switzerland has the shortest waiting time with mean of 1.3 months while Spain and Sweden are the two countries which have significantly longer waiting times with mean of 6.2 months and 5.8 months respectively. An independent analysis showed mean average wait for cataract surgery in the United Kingdom was 73 days compared with 37 days in Netherlands, 50 days in Italy and 100 days each in Finland, Portugal and Spain (9).

Another study showed that satisfied patients waited an average of 3-4 months compared with approximately 7 months for dissatisfied patients (10). A study showed significant reduction in depressive symptoms in patients

whose surgeries were expedited to one month compared to those assigned to a routine 12-month wait. In addition, those who had their surgery sooner had less anxiety, improved confidence and had higher levels of activity (11).

Long waiting times can affect quality of life before and after the surgery. This could be due to limited functionality, increased anxiety, higher rates of surgical complications and poor surgical outcomes (4). Patients who wait more than 6 months for cataract surgery may experience negative outcomes such as reduced quality of life, increased falls and vision loss during the waiting period (12). Long waiting time for hospital appointments has been reported to be a reason for patients not seeking cataract surgery (3). Untreated cataracts may result in poor quality of life and increased morbidity.

In this audit we found that most of the delay was due to limited OT slots. Being a university hospital, cataract surgeries were mainly performed by trainee surgeons under the supervision of more senior colleagues and lecturers. This had prolonged the duration of surgery and therefore limit the number of operations that can be done on any given day. In addition, operating lists at our university hospital are sometimes truncated because of the need to accommodate clinical exams by the specialists who were in charge of supervising the OT. Another reason for having less cases per OT list is due to the relatively complicated nature of cases that tend to get referred to tertiary centres like ours for further intervention.

The problems that caused delays in cataract surgery have to be looked into in order to prevent associated complications and to reduce patients' dissatisfaction. Some measures have to be taken to allow more patients to have earlier surgeries. Here we have listed some recommendations to help overcome the long waiting time for cataract surgery based on our findings in this audit.

Firstly, the number of cataract surgeries performed in the Day Care OT needs to be optimized. From this audit we found that the commonest cause of long waiting time is due to limited OT slots due to several reasons as mentioned above. One solution is to find out the starting and finishing time of each cataract OT list to ensure that it has been fully utilized. Perhaps, more OT slots should be provided in a day or in a week with adequate surgeons and staff to cater for the increasing need for cataract surgery in our centre.

Secondly, all patients with underlying medical and ophthalmic conditions should have their underlying conditions optimised prior to them being listed for surgery.

Cases like uncontrolled diabetes, hypertension, cardiac or lung problems and blepharitis can cause a delay in cataract surgery if not managed earlier. Doctors must ensure they review the patient's blood pressure and blood sugar before listing them for the surgery. Early referrals to other departments should be made if patients have other associated health issues. Any medical issues that arise on the day of surgery which prevents the surgery from being performed will result in a waste of opportunity for other patients.

Thirdly, all cataract patients have to be prepared mentally, emotionally and financially before they decide for the surgery in view of many cases where patients requested to postpone their surgery at the last minute. This results in a waste of opportunity for another patient. Previous studies have shown that patients' satisfaction significantly increased after meeting the surgeon and when they were given comprehensive information regarding the surgery (13, 14). In view of the anxiety experienced by many patients while waiting for their surgery, it may be reasonable to list patients with known anxiety problem much earlier. Other psychological problems should also be screened and given preoperative education and referrals to community resources to minimize the negative psychological effects that may arise (15, 16).

Limitations of study

This audit was the first batch of audit project done in the Ophthalmology Department of UMMC. It was a partial audit as it was the pioneer audit done for the department. Nevertheless, it represents important data that have not been published looking at cataract surgery waiting times in one of the leading university hospitals in Malaysia. Due to it being a partial audit, there were no post-interventional results available at the time of writing. As a recommendation, a full audit could be conducted in the future looking at the post-interventional results while taking into account the necessary interventions that should be performed as suggested in our audit.

Conclusion

Out of 219 patients included in this audit, 63% underwent cataract surgery at our centre within 3 months. Of those who waited more than 3 months, 72% were due to limited OT slots. Further interventions should be carried out to improve the surgery waiting time and hence increase the quality of health services in the country (Figure 1).

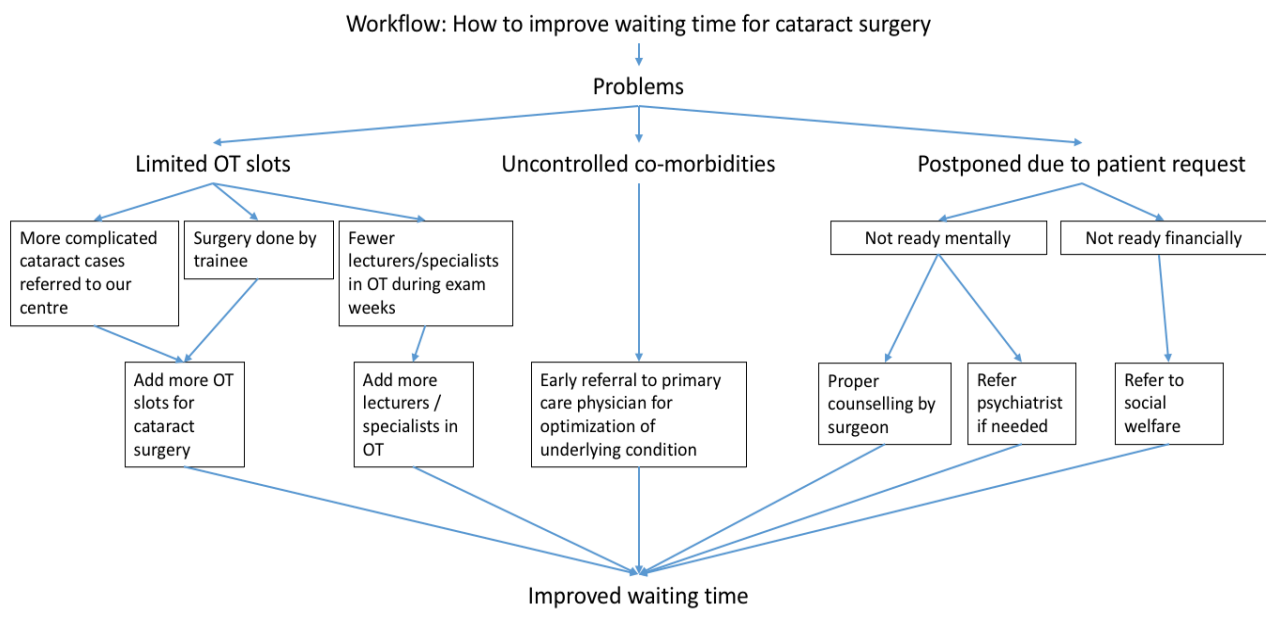


Figure 1: Workflow chart on how to improve cataract surgery waiting time

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Competing interests

The authors report no conflicts of interest.

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