An audit of compliance with national and local guidelines for day case cataract surgery at Aberdeen Royal Infirmary, Aberdeen

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Abstract

An audit was conducted in a Scottish teaching hospital to assess the level of adherence to local and national guidelines for day case cataract surgery under local anaesthesia. A questionnaire based on the guidelines was completed by the nursing staff for a period of eight weeks in locations performing day case cataract surgery in Aberdeen Royal Infirmary. We discovered that there were several areas where compliance with the guidelines was unsatisfactory. 23% of the patients had to wait longer than 3 months for their surgery from the time of pre-operative assessment. On the day of surgery, contrary to recommendations, 38% omitted their normal medication, 46% arrived fasted unnecessarily, 27% did not have their INR checked and 3% had diastolic blood pressure higher than 100mmHg. Based on these results a consultation exercise was undertaken and remedial measures put in place.

Keywords: Day case cataract surgery, Guidelines.

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Introduction

The introduction of phacoemulsification has permitted cataract surgery to be performed under local anaesthesia in patients with multiple co-morbidities. With this technique there is no need for anaesthetic personnel to be present in the operating theatre during the procedure. Under these circumstances, guidelines from the anaesthetic department would be particularly useful. Guidelines for the performance of day case cataract surgery were published in 2001 by the Royal College of Ophthalmologists and the Royal College of Anaesthetists [1]. This was soon followed by the publication of guidelines by Scottish Intercollegiate Guidelines Network (SIGN) [2]. Based on these guidelines a set of local guidelines were introduced in Aberdeen Royal Infirmary in 2001 and anaesthetic cover was reduced for day case cataract surgery. The local guidelines have not been audited since their implementation. A revised set of guidelines was subsequently published in 2004 by the Royal College of Ophthalmologists [3].

Aims and Objectives

1. The aim of the current audit was to identify the extent to which the local and national guidelines were being followed and to improve compliance if necessary.
2. To establish if the local guidelines needed to be revised in the light of more current and updated guidance.

Methodology

A prospective audit was carried out during the months of December 2004 and January 2005. A questionnaire based on the guidelines was distributed to the nursing staff on the ward and theatres, to be filled in by them on the day of surgery.

The following factors were analysed:

1. Waiting time between preoperative assessment and surgery.
2. Whether the routine medication was taken by the patient on the day of surgery.
3. Fasting status of the patient on the day of surgery.
4. For patients on warfarin (a) whether the INR was checked by the general practitioner and (b) whether surgery was cancelled if it was found to be high.
5. Patient's diastolic blood pressure on admission and whether the surgery was cancelled if it was found to be greater than 100 mm Hg.
6. Type of local anaesthetic technique used.
7. Establishment of venous access during surgery.

The data collected through the questionnaires were entered into an Access database and subsequently analysed.

Results

During the study period 175 day case cataract procedures were performed. Return rate of the questionnaires was 100% with some returns containing incomplete data. The results are shown below:

1. Time gap between pre-operative assessment and surgery: Data was available for 160 (91%) patients. The 90 day compliance was achieved in 124/160 (77%) patients.
2. Ingestion of normal medication by the patient on the day of surgery: 164 patients were on medication but only 101 took their medicine prior to arrival (62%).
3. Fasting status: 80 out of 175 patients (46%) arrived fasted on the day of the procedure
4. Warfarin: 11 patients were on warfarin. 7 patients had their INR checked by their general practitioner as recommended. In two of the above patients the INR was above 2 but surgery was not cancelled.
5. Diastolic blood pressure on admission: The diastolic blood pressure

was greater than 100 mm Hg in 5 out of 175 patients (3%). Surgery was not cancelled in any of these patients.

6. Local anaesthetic technique: Data was available for 168 out of 175 patients (96%). 140 patients (83%) received local anaesthetic eye drops, 25 patients (15%) were given sub-Tenon's injections and 3 patients (2%) were operated under peri/retrobulbar injections.
7. Venous access: Venflons were inserted in all patients in the retro/peribulbar group, 3/25 patients (12%) from the sub-Tenon's group and 16/140 patients (11%) undergoing surgery with local anaesthetic eye drops.

Discussion and Conclusions

Local and national guidelines drawn up to maintain a safe and efficient passage of the patient through the surgical journey were not adhered to completely in all domains. As per national guidelines the time gap between pre-op assessment and surgery should not be more than 90 days. The reasons for non compliance (23%) were not within the remit of the audit and need to be explored further.

Despite clear instructions at the pre assessment visit 38% patients did not take their usual medication on the day of surgery. Fasting is not required for day case cataract surgery under local anaesthetic. This audit showed that 46% of patients nonetheless arrived fasted for their procedure. The reasons for non compliance in this area could be related to the long time interval between pre-op assessment and surgery, patient's perception of the need to fast, and forgetfulness on the part of the patient.

When patients on warfarin are pre assessed, an information letter is sent to the General Practitioner. The patients are advised to get their INR checked from their GP practice 5 days prior to the proposed date of surgery. Despite these written instructions 27% of patients on warfarin did not have their INR checked. Contrary to local guidelines 2 patients with INR higher than 2 proceeded to have their surgery. It should be noted that the revised guidelines from the Royal College of Ophthalmologists (Ref 3; p 19) state that the INR is allowed to be in the desired therapeutic range. This changed recommendation needs to be incorporated into the local guidelines.

Local and national guidelines state that diastolic blood pressure should be <100 mm Hg. for the procedure to be carried out safely. There were 5 patients with diastolic blood pressure >100 mm Hg who proceeded to have their surgery performed.

With regard to venous access there is a discrepancy in the recommendations of the national and local guidelines. Local guidelines recommend the insertion of venflons in the peri and retrobulbar as well as in the sub-Tenon's group. This recommendation is related to the geographic isolation of the Day case theatre from the main theatre suite. The results of the present study show full compliance with the national guidelines. However contrary to the local guidelines, only 16% of the sub-Tenon's group had a venflon inserted. In the local anaesthetic eye drops group, 11% had venflons inserted even though it is not the recommended practice.

Recommendations

The reasons for the long delay between pre assessment and surgery will need to be identified and addressed. The information conveyed to the patients at the time of preassessment will require to be formalised in order to improve compliance and a detailed handout of instructions is recommended. A phone call on the day before surgery may prove to be useful. This might improve compliance with the normal medications and fasting status. The new guidelines proposed by The Royal College of Ophthalmologists [3] regarding Warfarin administration need to be incorporated into the local guidelines. The new guideline state that Warfarin need not be stopped as long as the INR is with in the therapeutic range. National guidelines recommend establishment of venous access only in the subgroup of patients undergoing the sharp needle technique, i.e.; peribulbar and retrobulbar group. The local guidelines need to be modified to reflect this recommendation.

This audit was presented to the ophthalmic department and all the recommendations have been taken on board. A re-audit will be performed after an appropriate time interval once the necessary changes have been put in place.

References

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