Short Communication

Premedication in Surgical Day Care Patients

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Abstract

The purpose of this audit was to find out the efficiency of our system in providing premedication to surgical day care patients. This audit was conducted in the Surgical Day Care (SDC) Unit of a University Hospital. All patients anaesthetised in the SDC unit on day care basis were included in this audit. Nursing notes and preoperative orders of all patients to be anaesthetised were checked to see whether premedication was given or not and was the timing according to the orders written. The result showed that out of 205 patients scheduled, twenty (9.7%) patients did not receive premedication. Only 37.2% of our patients were receiving premedication according to the orders. The majority of the errors noted in our audit were system errors related to cancellation, rescheduling and admitting the outpatient in the inpatient ward.

Introduction

Day care surgery is gaining popularity all over the world, one reason being the rising cost of medical care. Premedication is frequently omitted in day surgery in the belief that it is unnecessary and delays recovery. In this context premedication refers to drugs given before the patient arrives in the operating room.[1] Jan L. et al[2] in thier study showed that outpatients have preoperative anxiety and majority (61%) of them were willing to take premedication for reduction of anxiety. Their results were consistent with previous studies in which upto 80% of patients expressed a preference for a combination of anxiolytic reducing and hypnotic premedication before surgery.[3]

Among the clinically available benzodiazepines, midazolam possesses the shortest elimination half-life, a feature that makes it potentially useful for short acting day care anxiolysis. It has been proven by various studies[2,4] that 7.5mg of oral midazolam was associated with preoperative anxiolysis, sedation and amnesia without affecting the quality of recovery or the discharge time after ambulatory surgery with no significant untoward effect.

The importance of premedication cannot be denied due to its vast number of advantages. The purpose of this audit was to find out the efficiency of our system in providing premedication for the surgical day care patients.

Method and Results

This audit was carried out at the Aga Khan University Hospital over a period of three months. All patients scheduled for surgery in day care unit were included in our audit. A total of 205 patients were observed and all were included as we did not have any exclusion criteria for our audit. Our proposed standard was that all patients with no contraindications to premedication scheduled for anaesthesia should receive premedication at the prescribed time. The premedication orders were confirmed from preoperative assessment forms. The information whether the patient received premedication, its dosage and timings were collected from the nursing notes. Data collected included the total number of patients who underwent surgery; the percentage of patients who received and who did not receive premedication was calculated. If any patient was not given premedication the reason mentioned in their nursing notes was noted down. The reasons were to be categorised under patient factors, anaesthesia factors, surgical or primary team factors, nursing factors and pharmacy related factors.

Time of induction of anaesthesia was also noted to calculate the time duration from the time of premedication to induction.

Out of 205 patients, 185 (90.3%) received and 25 (9.7%) did not receive premedication. Reasons for not

Table 1. Reasons for no premedication.

	No. of patients	Percentage
Patients' factor		
Refusal to take premedication	3	15
Low Glasgow Coma Scale	1	5
Premature child	1	5
Anaesthesia Factors		
Premedication not ordered	4	20
Preoperative assessment not done	2	10
Surgical or Primary team factors		
Orders not entered in the computer	3	15
Reschedule case	2	10
Nursing factors		
Nursing error	3	15
Pharmacy related factor		
Non availability of drug	1	5

Table 2. Duration between times of premedication and time of induction of anaesthesia.

Time(mins)	No. of patients	Percentage
Less than 15	9	4.8
16 - 30	30	16.2
31 - 45	30	16.2
46 - 60	39	21
More than 60	77	41.6
Total	185	100

(9.7%) did not receive premedication. Reasons for not receiving premedication is presented in Table 1.

In two patients premedication was not indicated, therefore eighteen (8.7%) of our day care patients did not receive premedication where it was indicated. In all the rest of the patients there were patient related, human or system errors involved.

Patient related errors were refusal to take premedication. Human errors included physician overlooking writing premedication orders and confusion among the nurses regarding rescheduled cases. System errors occurred in the rescheduled cases and admitting outpatients in the inpatient ward, which led to, missed preoperative assessment and entry in the computerised system. It also included non-availability of premedication in one of the area.

Therefore according to our observation, majority of the errors noted in our audit were system errors related to cancellation, rescheduling and admitting the outpatient in the inpatients ward.

Out of the 185 patients who received premedication, the interval from premedication to induction was found to be quite variable (Table 2). Thirty-nine (21%) patients received premedication within less than 30 minutes of induction. Sixty-nine (37.2%) patients received premedication between 30 minutes to one hour and 77 (41%) were induced after one hour. Reasons for not administering premedication on time was not sought in our audit. It was noted that timing of premedication was dependent on when the patient was called from the day care ward. The nurse gave the premedication once she received the call to shift the patient to operating room.

Conclusion

In conclusion 9.7% of our day care patients did not receive premedication. The main reasons were rescheduling and admitting the outpatient in the inpatient ward on the day of surgery. Only 37.2% of our patients were receiving the premedication between 30-60 minutes and the nursing staff was not following the time of administration recommended by the anaesthetists. After sharing the audit with the department of anaesthesia, administration and nursing staff, several changes have been put in place to rectify the system errors as literature also supports that most correctable errors are system errors.[5]

The reasons for not receiving premedication was most of the time cancellation, rescheduling and admitting the outpatient as inpatient and wrong selection of patient for outpatient surgeries. Therefore we recommend that each institution should have guidelines for the selection criteria of day care patients and should have their proper preoperative assessment done. This would help in proper selection and preparation of patients and less cancellation and rescheduling. A separate policy should exist for rescheduled cases in order to reduce nursing errors.

References

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