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Length of Stay in Day Care Ward for Interventional Pain Procedures for Chronic Pain

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Abstract

Strict aseptic precaution is the most important pre-requisite for all interventional procedures. In our setup, interventional pain procedures are being done in operating room to ensure aseptic conditions. Patients are admitted for common interventional procedures of back pain in day care ward and their expected length of stay is 3-4 (180-240 minutes) hours. This audit aims to find out the average length of stay in day care ward for patients admitted for interventional procedure and possible reason for delay if happens. This audit was followed by a re-audit and conducted in Day care ward for a period of 2 months in two consecutive years. Patients booked for elective interventional procedures under the fluoroscopy guidance for back pain were included. A data collection form was designed and filled by a designated member of pain management team. In the first audit, 63.16% patients were discharge within 240 minutes while 36.84% stayed more than 240 minutes. Miscellaneous reasons were identified for delayed discharge and we worked for strategies to avoid such delays. In re-audit next year, 75.5% were discharge within 240 minutes and 24.5% stayed more than 240 minutes however in re audit different factors were identified for delayed discharge. In conclusion, mean duration of stay in three fourth (3/4) of patients is within benchmark (240 minutes). In comparison to previous audit, results were improved but still efforts need be done to rectify the identifiable reasons to avoid delayed discharge from day care.

Keywords: Interventional pain procedure; Day care

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Introduction

Interventional Pain Management (IPM) is relatively a new field of medicine. In last 2 decades there has been a tremendous advancement in managing chronic pain patients by variety of interventional procedures. According to the current database, there was an overall increase of IPM services of 197% compared to an increase of 137% in patients utilizing IPM services from 1997 to 2006 [1]. This has resulted in an increase demand of interventional procedures by pain physicians across the world. The Department of Anaesthesiology, Aga Khan University is the pioneer in introducing this discipline in Pakistan. Our chronic pain service has been doing common IPM procedures since 1998. In our Pain setup, majority of IPM procedures are being done in day care operating room to ensure strict aseptic conditions. For such procedures, patients are admitted in Day Care Ward with expected length of their stay is 3-4 hours. Due to increased financial burden and bed pressure for patients in day ward, we aim to discharge all patients within 4 hours or 240 minutes (International Benchmark 180-240 minutes) from day-care ward. Patient satisfaction has become an important endpoint in any health care delivery system [2]. Recent patient satisfaction survey of hospital reported that, in spite of adequate pain relief following such interventions, some patient showed concern of long stay in day care for the planned procedures. This audit followed by a re-audit aimed to find out the average length of stay in day care ward for patients admitted for interventional procedure and possible reason for delay if happens.

Methods

This audit followed by a re-audit (to complete the audit cycle) was conducted in day care ward and day-care operating room of Aga Khan University hospital Karachi for a period of 2 months (April-March) in two consecutive years. Patients booked for elective interventional procedures under the fluoroscopy guidance for back pain (only) were included. The common procedures for

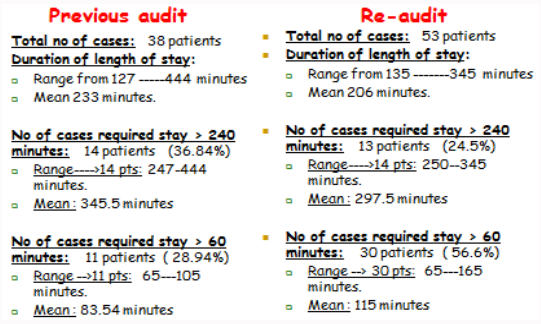

Figure 1: Comparision of results (Previous audit versus Re-audit).

back pain were diagnostic & therapeutic epidural steroid injections (Lumbar/thoracic/cervical/caudal), caudal epidurography, diagnostic Facet joint injection & therapeutic Radiofrequency ablation and pulse radio-frequency of Dorsal Root Ganglion (DRG) for failed back surgery syndrome. Patients on add on/waiting list were excluded from this audit. A data collection form was designed according to the related parameters and filled by a designated member of pain management team according to the weekly Rota. Data was entered and analyzed on statistical package for social sciences SPSS version 13. Frequencies and percentages were computed for categorical variables like number of procedures, duration of stay and reasons for prolong stay in day care ward.

Results

A total of 38 patients were enrolled in the first 2 month audit. Out of 38 patients, 24 patients (63.16%) were discharge within 240 minutes while 14 patients (36.84%) stayed more than 240 minutes. Minimum length of stay was 127 minutes with maximum of 444 minutes with mean of 233 minutes. Identified reasons for delay in 14 patients were non availability of Fluoroscopy radiographer Operating room staff, incomplete NPO (less than 4 hour), delay in billing and discharge summary and non- availability of patient's accompanying person and transport. The results of the audit were shared with day care management, including Head nurse and coordinator to look into the reasons to overcome these issues and ensure timely discharge from day care ward. In re-audit next year, a total of 53 patients were enrolled according to the same audit protocol. Out of 53 patients, 40 patients (75.5%) were discharge within 240 minutes (minimum time was 60 minutes) while 13 patients (24.5%) stayed more than 240 minutes. (Maximum time was 345 minutes) This time the factors identified for delayed discharge were different i.e. late arrival of patients and delay transfer of patients from day care recovery room area to day care ward. Figure 1 showed comparison of results of two audits regarding length of stay in day care.

Discussion

Most of the studies literature currently available regarding interventional pain procedures emphasizes the strict aseptic condition as one of the most important pre requisite [3]. To fulfill the aseptic conditions, these pain interventions are often performed in day care operating rooms. In our institution, we have been performing all pain interventions in day care operating room [4]. Practicing in developing countries with limited resources, we are very cognizant of the cost conscious health care plans [5]. We conducted this audit to see whether we are strictly following the international practice with expected duration of stay in day care or not. We have a very busy day care ward due to increase turnover of common day surgeries with long waiting list, Due to increase demand of beds in day care; we aim to make the bed available for other patients as soon as possible. We believe by reducing stay time in day care we can accommodate more patients on one given list with limited resources available. In our first audit we found that only 63.16% patients were discharged in expected time i.e. 240 minutes while in re-audit this was improved to 75.5% after rectifying the identified factors for long stay. Due to strict compliance, some patients were discharge within 60 minutes as well. This shows importance of conducting regular audits and sharing the result with concern authorities [6]. After first audit results, day care management ensured radiographer and staff availability and written communication (about availability of accompanying person and transport) were given to patient's attendants at the time admission in day care. These steps improved the timely discharge however in re-audit we found some other factors e.g. patient delayed in arrival or reporting time in day care ward and shifting from recovery room to day care ward. The results of re-audit were also shared with all stake holders to see the gaps and the strategies to overcome them. The limitation of this audit is a small sample size due to study duration of two months. In our audit we see the difference of sample in two consecutive years i.e. 38 *vs.* 53.

Conclusion

Mean duration of stay in majority of the patients i.e. three fourth (3/4) is within benchmark (240 minutes). In comparison to previous audit, results were improved but still efforts need be done to rectify the identifiable reasons to avoid delay in discharge from day care.

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