



## RESEARCH ARTICLE

### DELAY IN SURGERIES –A PROSPECTIVE OBSERVATIONAL STUDY AT A TERTIARY CARE INSTITUTE OF NORTH INDIA

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#### ABSTRACT

There are a vast range of cases seen in the department of plastic and re-constructive surgery like road traffic accidents, trauma cases, burn injuries, animal bites. Trauma forms a significant part of the workload in plastic surgery. Delays to treatment currently exist and may result in poorer clinical outcomes. Despite an increase in provision of emergency plastic surgery trauma lists, the average wait for emergency plastic surgery is increasing (Khan *et al.*, 2011). The objective of my one year study was to study the various reasons responsible for delay in surgeries in the department of plastic and re-constructive surgery at Sher-E-Kashmir Institute of Medical Sciences, Srinagar, J&K. It was a prospective observational study. The study was done based on the interviews from relevant informants, study of record and it also included the observations made by the researcher. Interviews were conducted on relevant stake-holders which included: Resident doctors, Patients, Attendants of the patients. Total of 750 informants were interviewed. Main reasons for the delay in surgeries were given as lack of OT time, over-running of theatre lists, priority of emergency patients, in-complete pre-operative evaluation of patients. Other reasons were also given by some like a wrong booking date given or a wrong list prepared. Non availability of beds, lack of resident staff was also a major reason given.

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## INTRODUCTION

There are a vast range of cases seen in the department of plastic and re-constructive surgery like road traffic accidents, trauma cases, burn injuries, animal bites. Trauma forms a significant part of the workload in plastic surgery. Delays to treatment currently exist and may result in poorer clinical outcomes. Despite an increase in provision of emergency plastic surgery trauma lists, the average wait for emergency plastic surgery is increasing. Hand and orthopedic surgery often have longer waiting time, which may be an explanation for high cancellation rates. The most common hospital-related reasons for cancellation are prioritized emergency operation and prolonged previous operation (Laisi *et al.*, 2013). The study was done for a period of one year from 1<sup>st</sup> October 2013 to 30<sup>th</sup> September 2014 in the department of Plastic and Reconstructive Surgery. On elective front two operation theatres are functional in the department along with 24 hour

emergency surgeries being done. With a staff strength of eight faculty members, six plastic surgery trainees, two post MS senior residents and four general surgery post- graduates, the department has evolved over the years but being a lone super-specialty tertiary care unit in the valley it bears a heavy brunt of patients and subsequently, these patients have to wait for long before being admitted which leads to delay in their surgeries.

## MATERIALS AND METHODS

The study was carried out in the department of plastic and re-constructive surgery at Sher-E-Kashmir Institute of Medical Sciences, Soura to identify various reasons for the delay in surgical intervention. The study was conducted for a period of one year from 1<sup>st</sup> October 2013 to 30<sup>th</sup> September 2014. It was a prospective observational study. The study was done based on the interviews from relevant informants, study of record and it also included the observations made by the researcher. To identify reasons for delay in surgical intervention of the patients an exit interview was conducted with patients/

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attendants to identify various factors leading to delay in surgery. In addition interview with the concerned plastic surgeon was also undertaken to consider his reasons for the delay.

## OBSERVATIONS AND RESULTS

Total of 750 informants were interviewed. Main reasons for the delay in surgeries were given as lack of OT time, over-running of theatre lists, priority of emergency patients, in-complete pre-operative evaluation of patients. Other reasons were also given by some like a wrong booking date given or a wrong list prepared. Non availability of beds, lack of staff were major reasons given.

**Table 1. Cause of delay for admitted patients**

Cause of delay	Frequency	Percentage
No bed available	254	33.8%
Lack of staff	248	33.07%
Lack of ot time	190	25.3%
Medical reasons	144	19.2%
Incomplete evaluation	129	17.2%
Over running list	120	16%
Emergency case priority	57	7.6%
Patient not turning	54	7.2%
Change of plan	12	1.6%
Other reasons	36	4.8%

## DISCUSSION

In our study 750 informants were interviewed. Main reasons for the delay in surgeries were given as lack of OT time, over-running of theatre lists, priority of emergency patients, in-complete pre-operative evaluation of patients. About 33.8% of those interviewed gave the main reason as non availability of beds in the ward. 33.07% said lack of resident staff as the reason for delay in surgeries in the admitted patients. 25.3% gave the reason as lack of time in operation theatres. 16% of cases mentioned as over- running of list as a reason for the delay. Robb *et al* revealed in a study that 31% of cancellations were due to non-availability of beds (Robb *et al.*, 2004). Many studies also gave the reason as shortage of beds and staff as the cause for increase in waiting time in hospitals (Merehau Cindy Mervin and Sukhan Jackson, 2009; Nasr *et al.*, 2004). Studies done in Australia, Canada, UK revealed the main reason of increasing wait time to be un-availability of beds due to demand- supply mis match. (Siciliani *et al.*, 2013; Marshall Dahl *et al.*, 2006; Curtis *et al.*, 2010) Lack of staff was also an important cause given by various studies (Jonnalagadda *et al.*, 2005; Decoster, 2005; Troung *et al.*, 1996) which revealed an important relation between presence of adequate staff and time of surgery of patients. In our study 25.3% cases revealed lack of OT time to be a reason for delay in surgeries. A thesis presented on hip fracture delay revealed similar results (Kim Thijssen, 2012). 19.2% cases in our study were delayed due to medical reasons. This leads to rendering the patient unfit for surgery and ultimately, cancellation of surgery. In a Finnish study 15.6% cases were cancelled due to the same reason (Laisi *et al.*, 2013). Patients usually have to roam around many specialties before getting pre- anesthetic clearance if ever they have co-morbidities associated. This leads to a lot of wastage of time and as a result admission is deferred. 17.7% cases are cancelled due to the same reason of in adequate evaluation in a study conducted by JuHsin *et al.* (2014). In our study another cause that was inferred leading to delay in surgeries of admitted

patients was over-running theatre list in 16% cases. A study by Schofield *et al.* revealed 18.7% cases delayed due to over running of theatre list (William *et al.*, 2005). Pandit *et al.* gave it as a commonest reason for cancellation of cases (Pandit and Carey, 2006). 7.6% cases were cancelled due to admissions in emergency. These patients occupy majority of beds in the ward thereby, hindering routine admission of patients from the OPD. Vinukondaiah *et al.* and 9.2% cases in a study conducted by Laisi *et al.* gave the same reason for cancellation of elective surgical cases (Laisi *et al.*, 2013; Vinukondaiah *et al.*, 2000).

## Conclusion

Timely access to health-care is a primary concern in public hospitals. Prioritization of patients on the basis of their diagnosis, severity of disease, age holds an ut-most importance. It was revealed from our study, based on the interviews with the staff, patients and the attendants for the reason of delay in surgeries and subsequent, increase in the wait times, was non-availability of beds in the ward and in-adequate resident staff. Huge rush of patients in the emergency adds to the chaos.

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