

Patient Centric Approach Reduces Delayed Discharge from Hospital Post Medical Advice: An Indian Perspective

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Received: June 29, 2020; Published: September 15, 2020

Abstract

The present study was designed to evaluate a large private hospital and study the incidences of delay in discharge of patient, corrective action/steps which can be taken to resolve the delay in discharge and study the consequences resulting from delay of discharge, post medical advice. Seventy two discharges planned were studied by on field study and suggestions were sought on how hospital process can be improved. The results indicate that 16% of discharges get cancelled and the occurrence of delay in discharge are due to lack of coordination, communication amongst the staff members and lack of shared understanding about the problem. It was also observed that process design is a critical factor and the missing gaps in design result in locating a systemic delay in discharge and thus finding solutions to problems. These findings will subsequently help the hospitals to streamline discharge processes but also provide a methodology to other sectors to resolve issue involved in similar service related processes.

Keywords: Patient Discharge; Hospital Communication; Patient Centric; Billing

Introduction

The Indian healthcare sector is expected to grow to US \$ 280 billion by 2020 at a compound annual growth rate of 22.9 per cent [1]. The private sector is emerging as a vibrant force in India's healthcare industry and adding to international reputation. It accounts for almost 74 per cent of the country's total healthcare expenditure [2]. The patient expectation in private care hospitals are increasing, they not only want value for money by accessing best in class clinical treatment, but huge emphasis is given to patient care service provided by hospital staff.

Though several studies have studied the discharge process in hospitals, however discharge process post the clinician's advise for discharge i.e. its efficiency and delay have not been studied. Discharge process have been studied on the basis (LOS) length of Stay [3-4], rehospitalisation [5], Hospital readmission rates [6] patient satisfaction with discharge process [7], standardisation of process [8]. Literature is available on studying hospital processes in realms of Lean/Six sigma methodology [9], intervention process mapping [6], but not specific to the definition of discharge.

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Aim of the Study

Therefore, the aim of the present study was to investigate the reasons that lead to delay in discharge of patients post the clinician's advice, to identify solutions for improving the discharge process and to describe the consequences of delay in discharge process on customer satisfaction and brand of hospital.

Materials and Methods

The present study was conducted in a private hospital in, India where the discharge process measures were not meeting the targets set by the management. In the present study we are referring to organisation of care. The discharge of patients is generally defined as patient leaving the hospital premises post the advice of clinician (includes the medical instructions that the patient will need to fully recover) in the present study. Delay was measured as perceived by patient and/or as standard lay down by hospital premises, whichever being lowest.

Survey design

This research case is based on observation and field work, may be removed action research for finding solution (focus group discussion), process maps and document related to discharge, text of whatsapp being created during discharge process, participant observation.

To diagnose the reasons of change and ideating on possible implementable solutions for improving the efficiency of discharge process we took the first stage of action research as stated by Baskerville and Myers [10]. Documents such as emails, MIS (management information systems), monthly reports, what is being said by managers were considered and choice of hospital and ward. Here document were considered as 'anything that can be stored in a digital file on a computer'. This provided sufficient scope for analysing the reason of delay and consequences of delay on the patient care.

On field observations of the entire process i.e. from the time the doctor's advices the discharge to the time patient steps out of the hospital unit. Mapping of this onsite observation was done with existing /laid down processes. Participant observation was done according to Spradley [11], dimensions such as space/place, Time, Actor, Activities (set of related acts that people do), goal, feelings need to be taken into account during this observations.

Basis Action learning intervention, focus group discussion were conducted with all the stake holders involved in discharge process. The focus was on what they observed, reasons for delay or on time, how they could improve the discharge process. Microsoft Excel 2010 software was used to analyse the information generated and data presented in tables and charts.

Results and Discussion

In the present study a total of 72 discharge case studies were done for three consecutive days (24 per day). The average stay of the discharged patients was 6.8 days. For the 72 discharges planned, 398 transactions (5.5 per discharge) were done pre and post discharge planned. The standardization of the discharge process was based on standard discharge planning and teamwork building. Table 1 and 2 summarises the standard discharge process in a large private hospital a day before and on the day of discharge respectively and the delays occurred in the steps. The personnel involved in the process of discharge per patient were 12.

S.no	Process Step	Dealing Personnel	Delays in discharge
1	Plan discharge for next day Note orders in file	Consultant incharge	-
1.1	Notes order in file collects pending reports pre- pares discharge summary	MO (Medical Officer)	-
1.2	For credit patients, ensure reports are photocopied Updates EDOD poster/Visual Board Sends discharge intimation to Bed Manager and prepare interim bill Lists returns for pharmacy	Sister in charge billing Sister In-charge	List for pharmacy not prepared (n = 5) Reports not photocopied (n = 6)
1.3	Delivers to pharmacy Accepts returns and updates system	GDA pharmacist	List did not reach pharmacy (n = 12)
1.4	Advices patient for Daily round	Physiotherapist/Dietician	No issues

Table 1: Discharge process a day before in a large private hospital.

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S. no	Process Step	Dealing Personnel	Delays in discharge
1	Discharge Order	Consultant	Cancelled discharge the next day due to medical complication (n = 2)
2.1	Completes Medication orders on summary	Medical officer	-
2.2	Collects activity sheet (and for credit patients also: Original Disch Summary, Reports)	Sister/In-charge	-
2.2.1	Cash patient/ No cash patient: Activity sheet delivers to bill ward desk	GDA	Delay in delivery of activity sheet to bill ward desk (n = 14)
2.3	Lists returns for pharmacy	Staff Nurse	-
2.3.1	Delivers to pharmacy	GDA	-
3	Accepts returns and updates system	Pharmacist	Delay in updating (n = 12)
4	Updates Bill Bill handed over directly to Attendant at ward (for cash); Front office (for credit)	Billing desk at ward Billing desk at ward	 (i) Delay in pharmacy list reaching billing desk (n = 12) (ii) Delay in billing (manpower delays) (n = 10) (i) Delay due as next steps are not known (n = 14)
			(ii) Delay due to unavailabilityof patient attendant (n= 4)
6	Attendant clears the bill (cash)	Patient Attendant	Bill waiver issues (n = 6)
	Financial clearance from TPA/ECHS/ Corporate and Informs Ward	Front office IPD	Insurance approval issues (n = 80)
7	Receives amount and gives clearance (cash) for credit also clearance	Billing desk at ward	-
8	Hands over DS/ reports/ photocopies/ discharge advice to patient	S/In-charge	-
9	Transfers patient to Discharge Lounge	S/In-charge	-

Table 2: Discharge process on the day of discharge in a large private hospital.

The time of the discharge is 11 am as per the discharge process design of the hospital. Discharge delays occurred in 12 planned discharge cases. The median number of planned discharges in the present study was 83.4% i.e. about 16.6% discharge got cancelled or delayed. The average waiting time was 4 ± 1.2 hrs. Lewin's [12] field theory, which suggests that perceived waiting time may be defined as "a longer, and affective responses more negative, when the body state, behaviour of self or others, or condition of wait occurs further from the goal state of the service the physical world, which is consciously desired, than when close to the goal state and the anticipatory model [13] which yields different predictions, suggesting that a delay would be felt to be most irritating when it is close to the goal state were leveraged in understanding the perception of delay. Though delayed discharge is recognized to be a system-level problem and several studies suggest that an effective team working within hospitals and coordination between health and social care is required [14-16]. However, very few studies have been done on the delays due to administrative delays. An in-depth understanding of the impact of delayed discharge on patients needs to be established so that managers and policymakers can make informed decisions about addressing the consequences of delays.

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The whats app conversations were analysed, i.e. categorized and tabulated across so that meaningful abstraction and comparison can be drawn to find patterns, similarities specifically with context of task interdependencies and the coordination therein. The major issue in delay in discharge in the present study was billing (56.9%, Figure 1). It seems the focus is on bills, either it is bottleneck for smooth discharge or it may be interpreted that players are revenue focussed rather than patient focussed.



It was observed that though there is planning as evident from data in sharing the planned discharges and IT tool available to track the online status of discharge, however continuous data/information's sharing is on dependencies and the flow of information to next step is constrained indicating that task organisation is more or less on target (Table 2). Moreover, loop holes were found in task cognition as closure status was not reported at the days end. However, more than 100+ transactions per day took place indicating task awareness. Task communication was mostly around bills and ambiguous communication was noted between billing desk, pharmacist and ward (Table 2). Most of the problems in billing were due to insurance approval delays.

Post the field observation and mapping them with the existing process map (Table 1 and 2), it was found that the process design does not have components of interaction with patients or patient attendants and does not factor in the amount of coordination volume of transactions and its repetitiveness. The discharge process design is generalised and not as per speciality, does not build in patient queries and response to it, does not have "revisit/advice" of doctor, which does come up often and changes the bill, advice, discharge summary, does not have provision for patient/attendant to check the bill, next steps are not easily known to patient leading to delays and there is no provision in existing process maps.

Conclusion

Most studies available in hospital discharge studies focus on medical aspects like post treatment, admissions and overall discharge process in terms of average length of stay (ALOS). This case based research focusses on discharge process once the doctor has advised to the time patient leaves the hospital premises. Hence this contribution to the academia for further research purposes and integrating the scope of existing theories of coordination, communication and agency in a hospital set up. It also has practical implication for the

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practitioners and provides insights in process design gaps such as continuous communication with patients, repetitive coordination and iterative handover of information amongst the hospital care providers. The study also provides clarity, through systematic analysis, on bottlenecks at various stages of discharge process and that the management practitioners need to attend to. It also provides inside view on issues of task awareness, task cognition and task communication. Future researches may focus on above specialised issues as part of their study in this domain.

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Volume 8 Issue 10 October 2020

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