

## CASE REPORT

# Strategy for Reduction of Average Length of Stay in Tertiary Care Hospital

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## ABSTRACT

Average length of stay (ALOS) is an integral part of management information system (MIS) of any hospital and is a statistical calculation often used for planning purposes for effective utilization of resources in the hospital. The present case study is a discussion of an exercise of 8 months to reduce the ALOS; the present study is restricted to the "Strategy of reduction in ALOS".

**Keywords:** Average length of stay reduction, Discharges, Strategy.

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## INTRODUCTION

A description of the duration of a patient's single episode of hospitalization is termed as length of stay (LOS). A common statistic associated with LOS is the average length of stay (ALOS), an integral part of management information system (MIS) of any hospital. It is a mean value calculated by dividing the sum of inpatient days by the number of patient's admissions/discharges (and deaths) in the hospital. Optimizing the ALOS is based upon international benchmarks to increase the efficiency and effectiveness of the resources and thereby free beds for revenue enhancement opportunities. The course of administering a multifaceted, integrative approach to enhance the process of patient discharge is indeed complex.<sup>1</sup>

This case study was conducted at a Tertiary Care Hospital in a Metro city, Mumbai, India.

In their continual thirst for excellence in patient care, the management of the hospital in the mentioned subject had aimed to reduce the ALOS of patients and contribute toward client delight.

## DESIGNED STRATEGIC PATHWAY

On October 17, the hospital set the goal to reduce the ALOS from 5.5 to 4.5 days over a period of 1 year. This decision was based on observations of other hospitals, peer review, market studies, and agreed average ALOS after concurrence on ideal ALOS from key consultants. Yearly targets to reduce the ALOS were set progressively.

The task of 25% achievement of the desired goal (from 5.5 to 5.1) was aimed in the first 6 months.

## MATERIALS AND METHODS

The following measures were taken in this multipronged strategy.

- The MIS was utilized, a base MIS was created for the calculation of the ALOS. For example, doctor-wise ALOS was calculated for the past 8 months before the start of the study: doctor-wise admission, LOS.
- The doctor-procedure-specific ALOS was calculated for key doctors who had a major stake in hospitals' admissions.
- A daily report of patients whose stay was 4 days and more was generated to medical administration as a ready reckoner to track patients to facilitate departmental coordination, timely discharge.

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- Prognosticators of inappropriate hospital stay were identified.
- Department wise sensitization: intensivists, internal medicine, orthopedicians, general surgeons, nephrologists, neurologists, hospital infection control committee (HICC) head: all were sensitized.
- Regular follow-up coordination with consultants, weekly report preparation of status of long-stay patients with their tentative date of discharge was carried out.
- Residents' training, sensitization was carried out for discharge readiness and timely discharges.
- In internal department meetings of Internal medicine, orthopedics, neurosurgery, general surgery—clear agenda of reduction of ALOS was discussed and a healthy comparison of ALOS of consultants was done as peer review.
- Statistics of the present trend of LOS were discussed on a case-to-case basis; viz. hysterectomy, hernioplasty which could be discharged in 1 day.
- Daycare packages list was shared in internal meetings, the emphasis was made on having daycare procedures and getting processes streamlined.
- Senior consultant engagement for maintaining the optimum LOS of the patient as per clinical needs was increased.
- Emphasis on accurate patient placement in an appropriate level of care such as wards, high dependency unit (HDU), intensive care unit (ICU), etc.
- Processes were streamlined to ensure that ancillary tasks are completed on time, patient and family education, discharge

planning, and evaluation toward readiness for discharge was carried out.

- Interdisciplinary team rounds, multidisciplinary meetings with an active role of administrators were conducted for streamlining communication between patients and hospital staff, thereby ensuring that patients progress as quickly as possible through care milestones.
- Close tracking of patients admitted for certain procedures to ensure that LOS is within package days, such as, coronary artery bypass graft surgery (CABG), total knee replacement, total hip replacement, etc., was carried out.
- The focus was placed on long-stay patients with regular monitoring of status and facilitation of shifting/discharges appropriately.
- Short stay patients like a medical and surgical daycare with emphasis on quick turnover were popularized.
- The discharge process was expedited.
- Sensitized HICC role in reducing ALOS: the HICC team was actively involved in daily rounds especially in critical care, vulnerable patients who are prone to get infections. It was sensitized that this will help in reducing healthcare-associated infections (the infections which add insult to the healing and prolong the stay of patients in hospitals).
- Domiciliary healthcare at home was encouraged.
- Patients who were admitted only for rehabilitative care, physiotherapy, and nutrition therapy were encouraged to heal through facilities that could be provided at home. The professional team providing nursing care/ICU care/rehabilitative care at home was preferred by consultants for such care.

## RESULTS (OBSERVATION AS ON JUNE 30, 2018)

The said study concurrent with the objective is of 8 months' duration. The current status and inference of the study as of date, i.e., October 2017 to mid-June 2018 is depicted below (Fig. 1).

Month	ALOS (in days)
October 17	5.6
November 17	5.6
December 17	5.3
January 18	5.4
February 18	5.5
March 18	5.4
April 18	4.9
May 18	5.1
June 18	4.8

## CONCLUSION

Early observations of the adopted strategies depicted satisfactory results in reducing the ALOS. However, it is too early to comment on the cumulative benefits of the said study. The scope of the present paper is to discuss the strategies which primarily give better results with a need for further surveillance. Success is the result of multiple complementary changes, including both the design of how patients flow through the system and the development of new care delivery models. There is no simple solution. Combining changes in the hospital, assessment processes, and the provision of alternatives to the hospital are all required. Having a culture

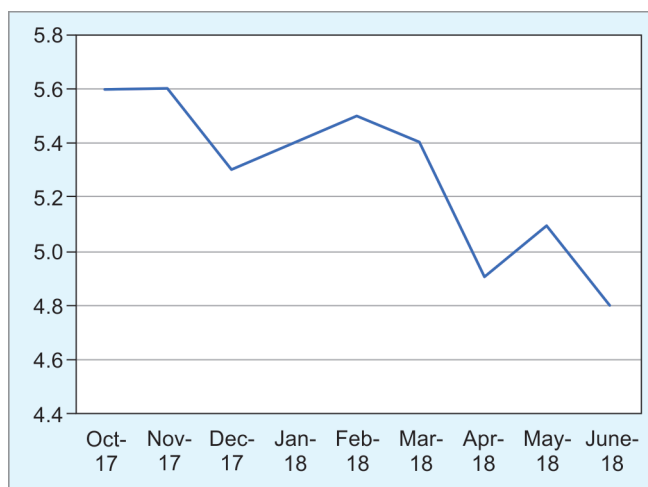


Fig. 1: Graph depicting average length of stay between October 2017 and June 2018

of proactive multidisciplinary team patient management and challenge is often critical for the management of flow.

## CLINICAL SIGNIFICANCE (BENEFITS)

- Improvement in effective bed capacity, the efficiency of patient care, the safety of patient care, support service processes impacting patient flow; in turn contributes to client satisfaction.
- It relates to avoiding unnecessary hospital-acquired conditions (HACs) which is a primary indicator of a hospital's success in achieving these goals.<sup>1</sup>
- It provides capacity in the hospital (including beds and staff time), thereby improving throughput, enabling the hospital to serve more patients.<sup>1</sup>
- It releases the already-stretched resources giving scope to cope with more and more patients, managing their flow through your hospital is an important advantage.
- Shorter stay in hospital facilitates treatment to be shifted from expensive in-patient care to less expensive domiciliary/ outpatient care.

## CHALLENGES

As this entire exercise was multidisciplinary, we faced a lot of challenges.

- Consultant's apprehension and resistanceThe clinicians felt that administrators were intruding on their medical treatment.
- In few long-standing cases, it was difficult to convince the patients/relatives. Moreover, patients who required long-term rehabilitative care/nursing care were not convinced to seek the said care at home.

## RECOMMENDATIONS

- Surveillance required, continue the exercise.
- To find bottlenecks and employ innovative measures.
- Dashboard: focus on the flow of patients, careful mapping at each touchpoint of discharge.
- Organizational culture modification: proactive steps to be inculcated with right fundamentals contribution.

- Establishing clear communication channels with patients and families to manage expectations is also important.
- Multifaceted, multipronged approach: “bundle” approaches together, particularly those targeted at older patients whose stay has increased beyond expected targeted date of discharge. No single approach will achieve sustained reductions in LOS. Many effective approaches are within a hospital’s control to change—but they often require changes in culture and existing processes, or they require services and resources to be redesigned or reallocated.
- Holiday discharge too should be a routine policy: ensure active support for discharge 7 days a week. Seven-day ward rounds and ward rounds involving senior decision-makers that are timed to match patterns of admissions should help to facilitate early discharge.

## REFERENCES

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