

JHAH Hospital Length of Stay in Medical/ Surgical Inpatient Wards

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Introduction

Average Length of Stay (ALOS) is an important indicator for assessing hospital management efficiency and patient quality of care. Shorter stay decreases costs by shifting care from an inpatient setting to a less expensive post-acute setting. It also increases bed turnover rate, which then increases hospital profits.¹

Aim

- Address the complex operational/clinical processes
- Identify and evaluate system strategies to improve Average Length of Stay (ALOS) in the medical/surgical wards at JHAH Dhahran Hospital. A target was set to decrease ALOS from 5.8 in 2019 to 5.5 in 2021.

Materials and Methods

JHAH utilized evidence-based criteria (InterQual) to monitor appropriateness of admission, quality of care, level of care and continuity of care. A root cause analysis was completed using the top four contributing reasons of increased ALOS (Fig 1) as identified in avoidable days report. The Case Management process map was optimized to standardize the Case Management workflow and communication processes. A central discharge multidisciplinary (physical therapist, social worker, Nursing and physicians) and daily meetings were implemented to identify barriers to discharge and expedite the patient transition process. This was supported by the Utilization Review Committee (URC), a collaboration between case management and physicians. The Quality Analytics team collated, monitored and reported ALOS to stakeholders on a weekly and monthly basis as well as analyzed the Discharging Department performance.

A cause and effect diagram to analyze causes for prolonged length of stay (Avoidable Days) was created to identify the main causes for prolonged stays and establish an action plan. (Fig 2)
The interdisciplinary team governed by the URC, was able to identify process opportunities for improvement and implement the following:

- **Optimized the role of utilization management**
- **Enhanced communications among the multidisciplinary team**

The complementary role between utilization reviewers and discharge planners was further enhanced by defining workflows. Assigned a case manager to EMS to track Level of Care (LOC) appropriateness and care variation. The process of transferring patients to Long Term Care Facilities (LTC) was streamlined. Implemented Observation Level of Care. Patients with LOS \geq 14 days were discussed weekly to plan successful discharge. Updated and involved chiefs of services on changes implemented. Worked with Home Healthcare to identify improvement opportunities.

Results

The ALOS rate in the medical/surgical wards at JHAH DH was reduced from 6.4 in January 2021 to 5.6 in December 2021. Statistical Process Control chart quarterly performance data show a reduction in the ALOS from 5.9 first quarter 2021 to 5.5 2nd quarter 2022 (Fig 3). The SPC depicts a common cause variation that could reflect on process stability. More collaborative, focused efforts are needed to further improve LOS.

Conclusion

JHAH continues to monitor ALOS to sustain and build on the improvement. More collaborative efforts need to be in place to drive further improvement in the hospital ALOS. Future Plan: Link Utilization Management/Review with Revenue Cycle Management Once it's implemented.

References

- 1- Rojas-García A, Turner S, Pizzo E, et al. [Impact and experiences of delayed discharge: a mixed-studies systematic review](#). Health Expect. 2018 Feb; 21(1):41-56. DOI: 10.1111/hex.12619. PMID: 28898930

Figure 1

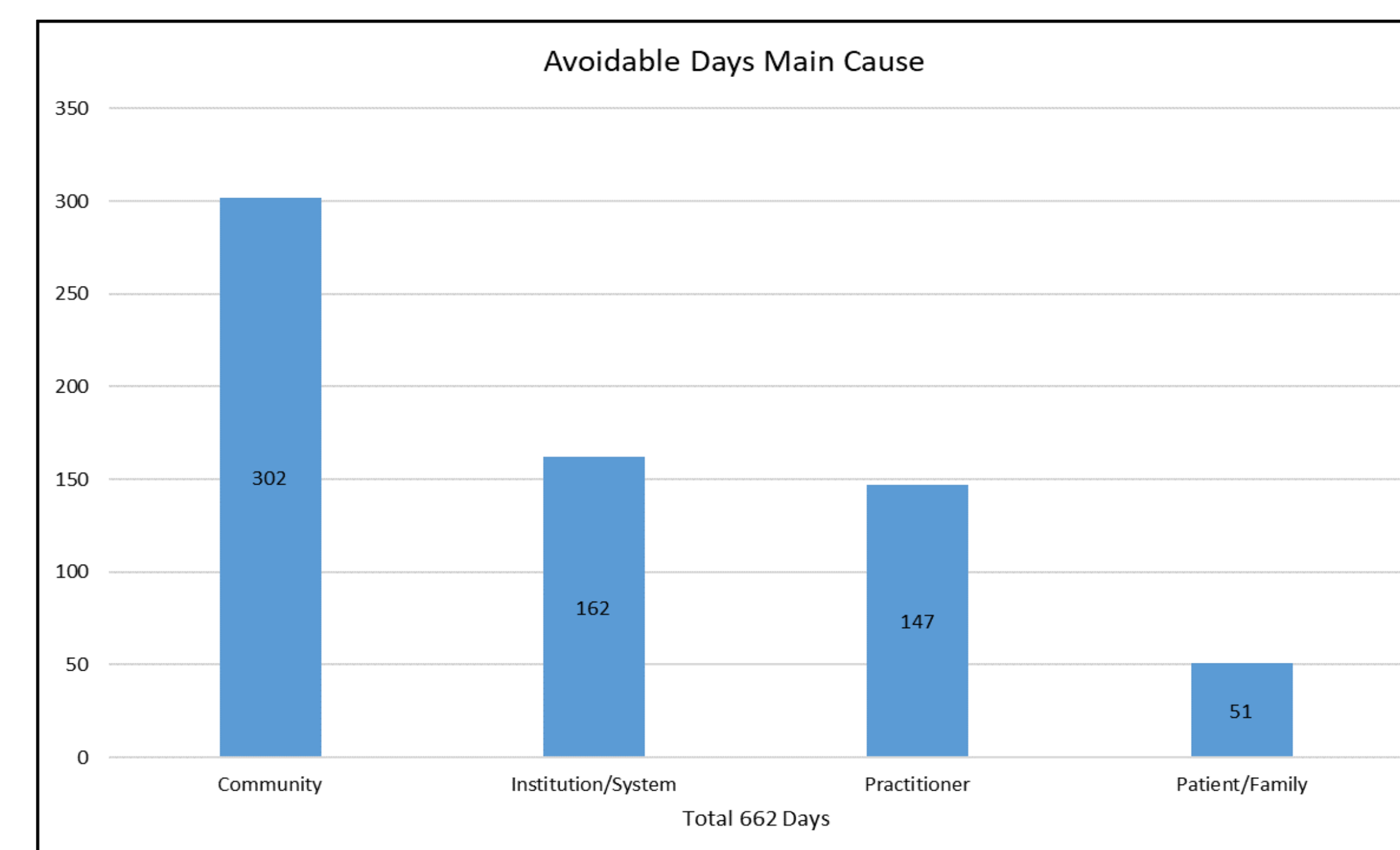


Figure 2

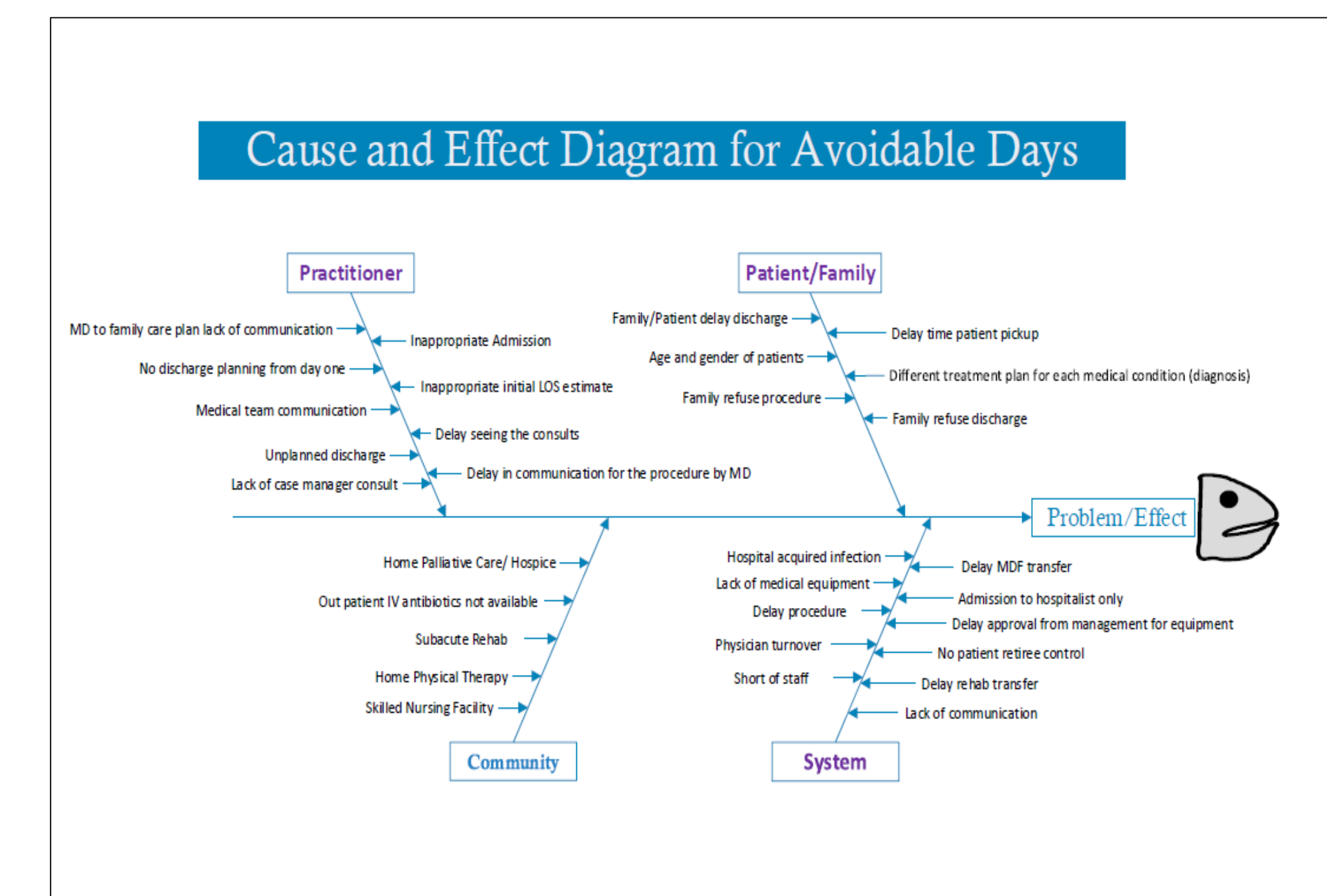


Figure 3

