

Implementation of Acute Care Unit (ACU)

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Aim

The Acute Care Unit (ACU) was started in KTPH in Oct 2012 to improve the quality and delivery of acute care to patients. We set out to determine if the average length of stay (ALOS) can be reduced with prompt initiation of definitive treatment in the ACU.

Method

All subsidized acutely ill patients admitted to Medicine in KTPH are admitted through ACU, where consultants conduct ward rounds three times a day, 7 days a week with enhanced nursing and operational support. The ACU adopts a pit stop concept where patients are seen by medical consultants 3 times a day

Objective:

Delivering timely, appropriate and compassionate care. Making acute care safer for patients 24/7

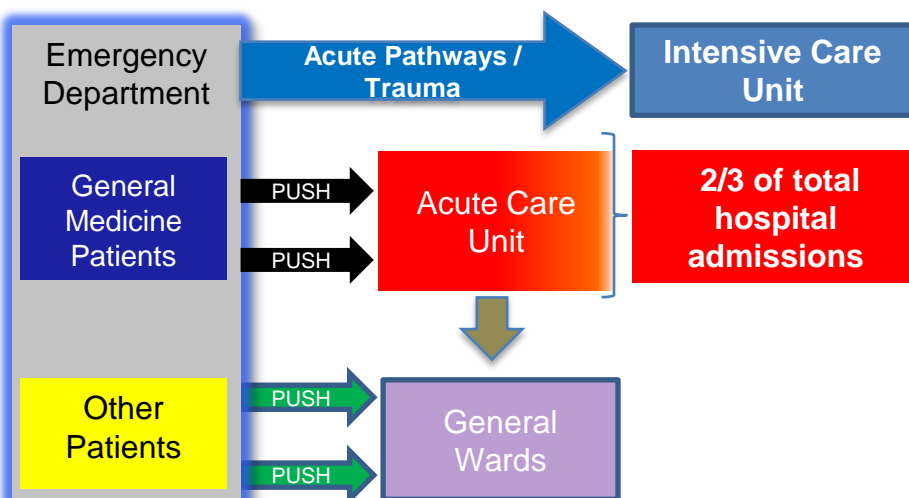
Approach:

- 1) Enhanced model of acute care. Fast & accurate diagnosis.
- 2) Specialists led 24/7 care at ACU
- 3) Timely care in ward. Minimize delay due to lack of specialist decision on definitive care plans
- 4) Facilitate discharge from ward

Outcomes:

- 1) Improve clinical outcomes
- 2) Reduce ALOS /Reduce waste
- 3) Reduce cost

Patient's Flowchart



Results

ALOS of patients in Medicine was reduced from 5.9 days to 5.4 days in 4 months' time.

Data Analysis for General Medicine Patients to ACU

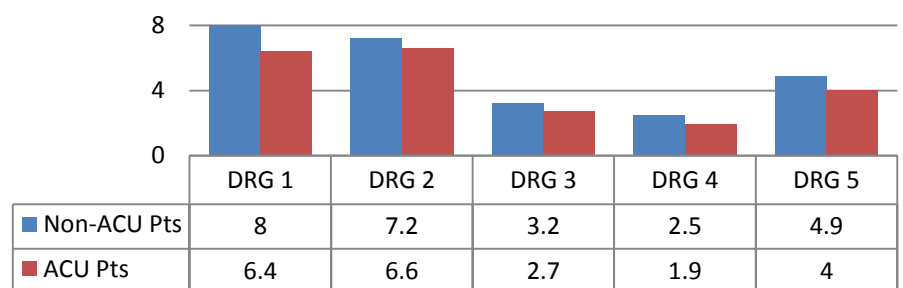
ALOS (Jun – Sep)	5.9
ALOS (Oct – Jan)	5.4
Difference in ALOS Before & After ACU	0.5
Average No. of ACU Admission/ Month (Oct – Jan)	671
No. of Bed Days Saved/ Month	336
No. of New Patients Due to Bed Days Saved/ Month	62

This translated into the ability of KTPH to admit 62 more patients in the 4th month since the inception of ACU. There was no change in the patients' readmission rate at 15 days. We also saw a reduction in ALOS ranging from 0.5 to 1.6 days for the top 5 diagnosis-related groups (DRGs) by volume for Department of Medicine. In addition bill sizes among these DRGs were reduced by up to \$432.

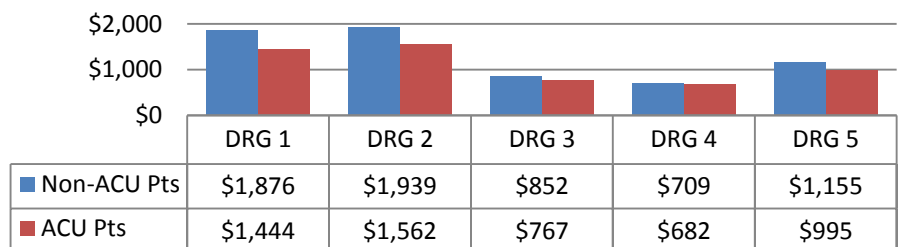
Top 5 DRGs by Volume for Department of Medicine

DRG 1	Kidney & UTI with Catastrophy
DRG 2	Respiratory Infections/Inflammations with Catastrophy
DRG 3	COPD without Catastrophy
DRG 4	Dysequilibrium
DRG 5	Respiratory Infections/Inflammations with Severe Complications

Comparison of Average Length of Stay (ALOS)



Comparison of Billsize



Note:

- Sample size, n = 30
- Based on the 50th percentile of the sample population

Conclusion

The introduction of ACU has reduced the ALOS for Medicine patients without an increase in the readmission rate. Most importantly, it has ensured acutely ill patients receive timely assessment and diagnosis round the clock, 7 days a week.