



# Pilot Outcomes of Acute Medical Ward (AMW) for Infection Related Conditions in Singapore General Hospital (SGH)

Singapore Healthcare Management 2016



Singapore General Hospital  
SingHealth



Dr Lim Wan Tin<sup>1</sup>, Dr Tharmmambal Balakrishnan<sup>1</sup>, A/P Wong Kok Seng<sup>1</sup>, Ms Yuen Bi Huan<sup>2</sup>, Mr Gary Ong<sup>2</sup>  
<sup>1</sup> Department of Internal Medicine, Singapore General Hospital; <sup>2</sup> Division of Medicine, Singapore General Hospital

## Background

As spelled out in the Healthcare 2020 plan, Ministry of Health had identified population growth, greying population and chronic disease burden as key drivers for the increase in healthcare consumption going forward. This coincided with the rise in admissions for SGH and Department of Internal Medicine (DIM) in recent years. Furthermore, such worrying trend was further compounded by the high Bed Occupancy Rate (BOR), making it extremely challenging for the hospital's operations.

Lodging of non-DIM patients at DIM wards was a common practice and DIM patients could be found at wards within the hospital. Having patients at scattered locations made prompt reviewing of cases with acute admissions, yet another challenge.

## Objectives

In order to improve ward efficiency and bed turnover rate, the AMW model had proven (based on literature review) to shorten patients' Length of Stay (LOS) through early development of care plan, rapid stabilisation of ill patients and right-siting of care. The AMW was piloted at W73A of SGH in Feb 2015.

The pilot AMW programme serves to reduce Average Length Of Stay (ALOS) for admitted AMW patients by:

- Proactively discharging patients within 72 hours;
- Right-siting patients who require longer hospital stay early; and
- Providing early Outpatient review within 1 week of discharge.

## Methodology

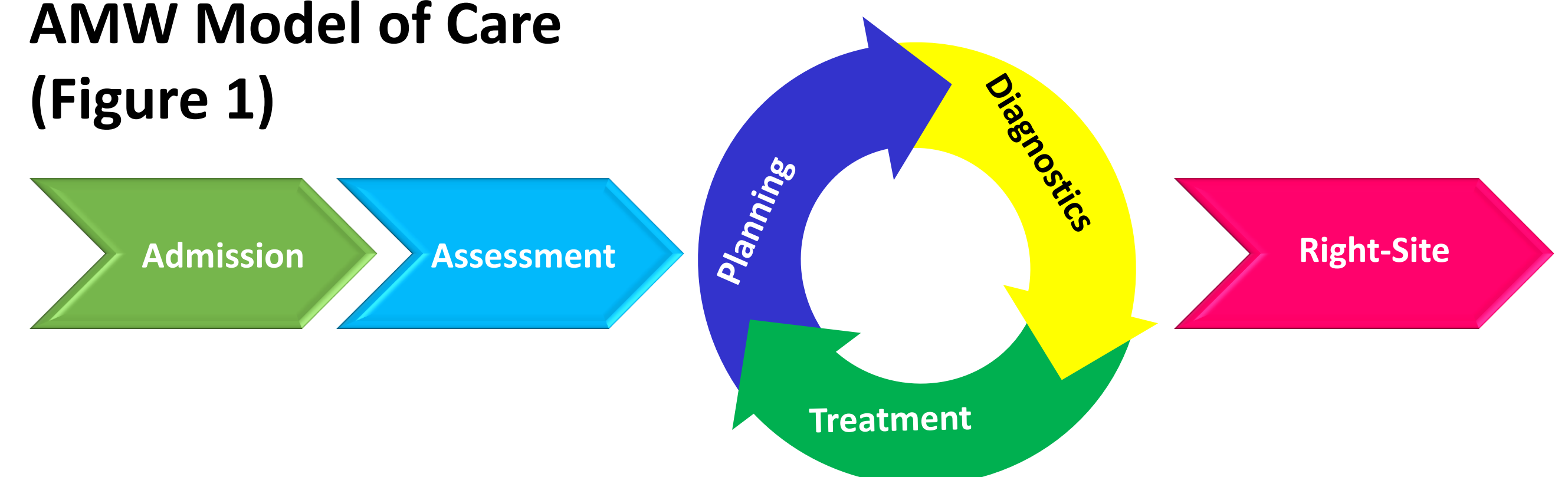
A 67-bed DIM ward was converted into an AMW and admitted patients with infection related conditions through A&E. The admission criteria was derived from a study of the top causes of deaths in the hospital and 45% were due to infection related conditions, particularly Pneumonia, Urosepsis & Septicemia.

The Model of Care (Figure 1) was crucial to the success of AMW and one of the key feature would be the Multi-Disciplinary Team (MDT), comprising of Nursing, Therapists, MSWs, Dieticians and Pharmacists. Daily MDT rounds (Figure 2) were conducted at the nurse stations to discuss the care management of AMW patients, follow-up actions and timely decisions were made collectively on the spot.

Clinical Care Pathways (CCPs) were drawn up for seven major infection related diagnoses which are evidence based to guide and maintain quality in management of patients' conditions by Doctors.

ALOS of grouped diagnoses, BOR, discharge and transfer rates were tracked to assess operational performance of AMW.

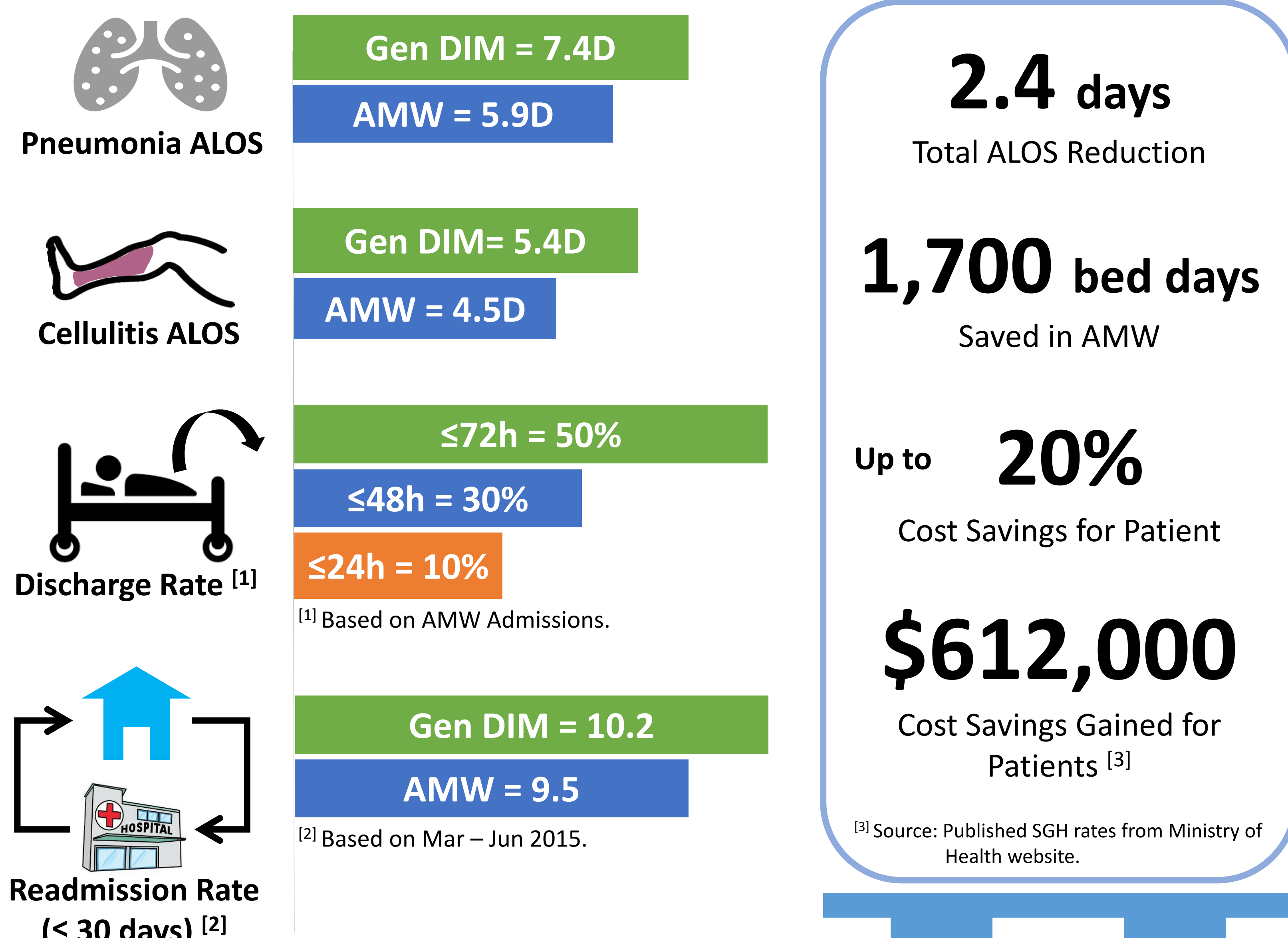
### AMW Model of Care (Figure 1)



### MDT Round (Figure 2)



## Results (Study Period: Feb 2015 to Feb 2016)



## Conclusion

The pilot results of the AMW were certainly promising with significant reduction in patients (cumulated) ALOS and Inpatient bill size. The AMW also contributed to considerable bed savings of 1,700 bed days based on the two listed diagnoses of Pneumonia and Cellulitis.

Moving forward, the team would be closely reviewing the inclusion diagnoses and monitoring the ALOS of each diagnosis group to ensure optimal AMW performance. In addition, DIM would be working closely with SingHealth Regional Health Systems (RHS) office to further strengthen the right-siting of patients to the right care facilities.

A 168-bed AMW facility would be planned into the upcoming Interim A&E Building on SGH Campus. Expansion of the AMW beds by about 2.5 times (from current) would further amplify the positive outcomes arising from this AMW pilot programme.