CHAPTER 5: OUTCOME
Muhammad Dzafir Ismail¹, Mohd Rahal Yusoff², Ahmad Syadi Mahmod Zuhdi¹, Mohd Firdaus Abdul Hadi¹, Wan Azman Wan Ahmad¹
1 Post Perubatan Universiti Malaya. 2 Columbia Asia Klang

Summary

1. The overall in-hospital and 30-day mortality rates remained constant at 7.4% and 9.2% respectively comparable to the last NCV-D-ACS 2011 - 2013 report 7.6% and 9%.

2. STEMI remained the highest in-hospital (10.6%) and 30-day (12.3%) risk of mortality after an event. However, at 1-year post ACS, the risk of mortality for NSTEMI had doubled to be 23% higher than STEMI (17.9%).

3. Patients who received fibrinolytic therapy or PCI had better outcomes than those who did not. However, the rate had remained the same from the last report.

4. Hospitals with cardiac catheterisation facility registered lower in-hospital and 30-day mortality rates. Worryingly, the mortality rate for hospitals without cardiac catheterisation facility had worsened.

5. Advanced age, higher Killip classification, and TIMI risk score at presentation as well as diabetes were independent risk factors for poor prognosis.

Overall in-hospital and 30-day mortality
In the year 2014 and 2015, the all-cause in-hospital mortality rates were 7.5% and 7.2% respectively while the 30-day mortality rates were 9.4% and 9.0% respectively (Table 5.1). There was no obvious change in the trend of mortality across all stratum of ACS over these 2 years. In-hospital mortality for STEMI was the highest (10.6%), followed by NSTEMI (8%) and UA (1.6%). The 30-day mortality was also highest in STEMI (12.3%), followed by NSTEMI (10.9%) and UA (2.8%) (Table 5.9).

In contrast to the previous report, patients treated at PCI centres (cardiologist centre) had favourable outcomes for in-hospital and 30-day mortality (6.9% and 8.7%) compared to patients treated at non-PCI centres (physician centre) (10.5% and 12.7%) (Table 5.8). Young patients consistently showed lower rate of mortality for in-hospital and 30-day outcomes (Table 5.2). In terms of ethnic distribution, Indians and those categorised as Others ("Orang Asli" (aboriginal), various East Malaysian tribes, other Malaysian and foreigners) seemed to have better in-hospital and 30-day outcomes. (Table 5.3)

Females had a higher mortality rate compared to males, although there was a slight improvement from the previous report (9.2% for in-hospital and 11.8% for 30-day mortality rates) (Table 5.4).

Patients with traditional cardiovascular risk factors namely diabetes mellitus and hypertension expectedly had higher rate of mortality, which was also seen in the previous report (Tables 5.5, 5.6). Patients with dyslipidaemia had a lower mortality rate, but this could be due to these patients already being on some form of statin. On the other hand, non-dyslipidaemic patients could have been undiagnosed at presentation, hence having a higher mortality rate (Table 5.7).

Outcome at 1-year post ACS
In this latest NCV-D-ACS Registry 2014 - 2015, we have included the mortality rates at 1-year post ACS. The overall rate of mortality at 1-year was 17.1%. Comparison with the earlier report was not possible because this data was not captured previously. The mortality rates at 1-year for NSTEMI and UA had increased significantly to 23% and 10.6% respectively compared to the 30-day outcome. The rate of mortality for STEMI was 17.9% at 1-year.