

A Clinical Network Project Improves Efficiency and Reduces Variability in Chest Pain Management in Victorian Emergency Departments

Anne-Maree KELLY*, Jan PANNIFEX, Merrin BAMERT, George BRAITBERG on behalf of the Emergency Care Improvement and Innovation Clinical Network, Department of Health [Victoria]

Aims: Clinical networks may facilitate the uptake of evidence-based practice; however evidence of their impact is sparse. This project aimed to improve processes for the assessment of patients presenting to ED with potentially cardiac chest pain, as evidenced by reduction in average length of stay [LOS] and improvement in the use of risk stratification.

Methods: This change-cycle project was conducted at 16 hospitals throughout Victoria. Participants were adults who underwent assessment for potentially cardiac chest pain and were discharged home from ED. Hospitals contributed data on a convenience sample before and after locally-designed change processes. Outcomes evaluated were average LOS and the proportion of patients with documented risk stratification. Analysis was by comparison of proportions and independent t tests.

Results: Average LOS in the before phase [N=920] was 471 minutes [SD 341 minutes, variance 116309] compared to 439 minutes [SD 262 minutes, variance of 68804] [N=944]; effect size 32 minutes [95% CI 4-60 minutes, p=0.025]. Risk stratification increased from 11.9% to 49.5%.

Conclusion: This project led to a clinically significant reduction in average LOS and increased use of risk stratification for patients evaluated for chest pain. A similar approach may be useful to promote uptake of evidence in other conditions.