New Clinical Governance Tool: Serious Clinical Deterioration Rates in Acute Inpatient General Wards

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Keywords:
Clinical Deterioration
Clinical governance
Measurement

Introduction
Timely detection and management of clinically deteriorating patients save lives. Two-third of patients showed identifiable signs of deterioration within 6 hours of cardiac arrest. Some hospital deaths could be prevented if these telltale signs are recognized early and acted upon appropriately. Different hospitals and clinical departments have different response mechanisms to manage deteriorating patients. There is no universally accepted clinical indicator (CI) to reflect the performance of these response mechanisms.

Objectives
We developed a CI that allow managers and clinicians to monitor the performance at hospital and departmental level longitudinally. CIs could be applied further and act as a trigger to initiate clinical audit cycles targeting on identified clinical problems and monitor the effectiveness of clinical improvement measures.

Methodology
Four CIs were derived based on the scientific statement from the International Liaison Committee on Resuscitations with adjustment made according to local situations. 1. Rate of death without do not attempt cardiopulmonary resuscitation (DNACPR) 2. Rate of cardiac arrest without DNACPR 3. Rate of unscheduled ICU consultations 4. Overall CI is the composite rate of the above When the CI goes beyond the control limits on the control charts, effort should be made to identify possible reasons for the potential special cause variation(s). Changes in the slope and mean could reflect any meaningful effects on the improvement works implemented.

Result
Rates are reported in acute inpatient general wards per 1,000 hospital admissions. Thirty-six-month data has been accumulated, a downward trend in death without DNACPR is observed while the total number of death is fluctuating in phrase with the winter surge pattern. This could be attributed to the effort of the promulgation and staff compliance on the corporate DNACPR guideline which improves the end-of-life care
of the patients. Death without DNACPR rates were above the control limits in January & February of 2014 with half of these patients died of cardiopulmonary diseases. Significant efforts have been spent on increasing the flu vaccination rate on susceptible patients as well as winter surge response strategies in our cluster. All in all, SCD is a new clinical governance tool to monitor the performance of clinical teams in treating acutely deteriorating patients and effectiveness of clinical improvement measures.