

The effect of blended front door on condition-specific length of spell in hospital: an analysis on pulmonary embolism

Authors: Natalie Ring,¹ Pradeep Mallisetty,¹ Biman Chakraborty,² Dee Narga,¹ Govindan Raghuraman¹ and Rahul Mukherjee^{1,2}

Aims

To evaluate the effect of moving ambulatory emergency care in January 2015 to be a part of accident and emergency (blended front door) for earlier senior clinical decision making on the management of a defined condition like pulmonary embolism (PE) presenting via the acute medical take. The elements analysed were: (a) length of spell (LOS), (b) time to definitive anticoagulation – warfarin or novel oral anticoagulant – in hours (NICE quality criterion) in a 610-bedded acute hospital.

anticoagulation, confirming improved flow through the hospital and tending towards improvement of quality of care in patients with proven PE. ■

Methods

The LOS of patients with proven PE and their time to definite anticoagulation in hours during the second quarter of 2014 (1 April – 30 June 2014: period 1) were analysed against the first quarter of 2015 (1 January – 31 March 2015: period 2). Apart from the blended front door, there were no pathway or guideline changes between periods 1 and 2.

Results

(1) The overall number of proven PE patients presenting via the acute medical take increased from 31 in period 1 to 49 in period 2, in keeping with the rise in emergency department attendances due to local ambulance destination changes. (2) The median LOS for PE decreased significantly from 11 days (interquartile range (IQR): 16 days) in period 1 to 7 days (IQR: 7 days) in period 2 by Mann–Whitney test ($p=0.025$), confirming a significant reduction in LOS. (3) The median time to definitive anticoagulation was 47.5 hours (IQR: 57.5 hours) in period 1 vs 30.0 hours (IQR: 28 hours) in period 2, not statistically significant ($p=0.154$) but showing a trend towards improvement.

Conclusions

Ambulatory emergency care at the front door (blended front door) has significantly improved LOS and shown trends towards improvements in the time to definitive

Authors: ¹Heartlands Hospital, Birmingham, UK; ²University of Birmingham, Birmingham, UK