Service impact of the physician response unit since the implementation of a new operational model

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Aims

To evaluate the impact of the new operational model on local ambulance, emergency department (ED) and hospital services, and estimate potential cost savings.

Methods

The physician response unit (PRU) is a rapid response emergency service, staffed by a senior emergency medicine doctor and ambulance clinician. It aims to 'take the emergency department to the patient'. In September 2017, a new operational model was implemented, extending operational hours from 08.30–16.30, Monday–Friday to 08.00–20.00, 7 days a week. Patient data was reviewed between 11 September and 30 December 2017. To measure potential cost savings, average costs were sourced from NHS reference costs, 2015–2016 (Department of Health). Mean length of stay data was sourced by matching diagnoses from PRU consultations with data from NHS Digital, hospital episode statistics for England in *Hospital admitted patient care activity, 2016–17.*

Results

In 111 days, the team estimate that they saved alternative ambulance resources from being dispatched to 348 patients, saving 3.1 resources per day for other emergency calls. The team estimated that 312 of the 449 patients managed in the community would have likely been conveyed to the ED. With a unit cost of £236, a reduction in 312 ambulance conveyances (2.8 per day) equates to an estimated saving of £73,632. At an average tariff cost of £138 per episode, a reduction of 312 ED attendances equates to an estimated saving of £43,056.

This activity helps to:

- reduce over-crowding and high demand in the ED
- demonstrate to ambulance and ED staff that alternative care pathways can successfully be accessed to enhance patient care
- reduce the risk of over-investigation and unnecessary prolonged encounters for patients attending the ED.

In 111 days, the team estimated that 71 patients managed in the community would otherwise have been admitted as hospital inpatients; equating to an inpatient bed occupancy reduction of 535 bed days. The cost of a non-elective inpatient bed per night in our trust is £550, giving an estimated saving of £294,250.

This activity helps to:

- reduce overcrowding and exit-block in the ED
- reduce pressure on acute inpatient wards
- demonstrate that alternative pathways can treat patients successfully in the community setting.

In 111 days, the PRU model was able to deliver a range of potential cost savings totalling an estimated £410,938, with an approximate operational cost of £91,000 over this period.

Conclusion

This innovative model of care can provide considerable cost savings as well as reducing pressure on ambulance services and emergency/acute hospital services. This is a necessary paradigm shift given the system challenges across the acute/emergency sector. ■

Conflict of interest statement

None declared.

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