Improving patient safety: evaluating the introduction of the annual steroid review and emergency alert systems

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Introduction

Management of paediatric cortisol deficiency requires regular parent and child education and effective liaison with the emergency services. [1]

An annual steroid review service was introduced by the clinical nurse specialists to provide education and improve parental understanding of the issues regarding cortisol deficiency in children.

Emergency alert systems for the local children's emergency department (CED) and ambulance services were also introduced.

Project aim: to evaluate the success of these measures in improving the safety of patients with cortisol deficiency at one centre.

Methods

Audit criteria were agreed based upon local consensus standards[1] and expert committee reports.[2]

The audit sample consisted of all patients receiving steroid replacement for cortisol deficiency attending paediatric endocrine clinic during June 2014- June 2015. 88 patients were included in the final sample.

A service evaluation was also conducted in the form of a structured questionnaire posted to the parents of all 88 patients.

Semi-structured interviews were conducted with members of CED staff to obtain feedback regarding the use of the CED alert system for cortisol deficient patients.

Results

Annual steroid review:

72.2% (n=68/88) of patients had received an annual steroid review.

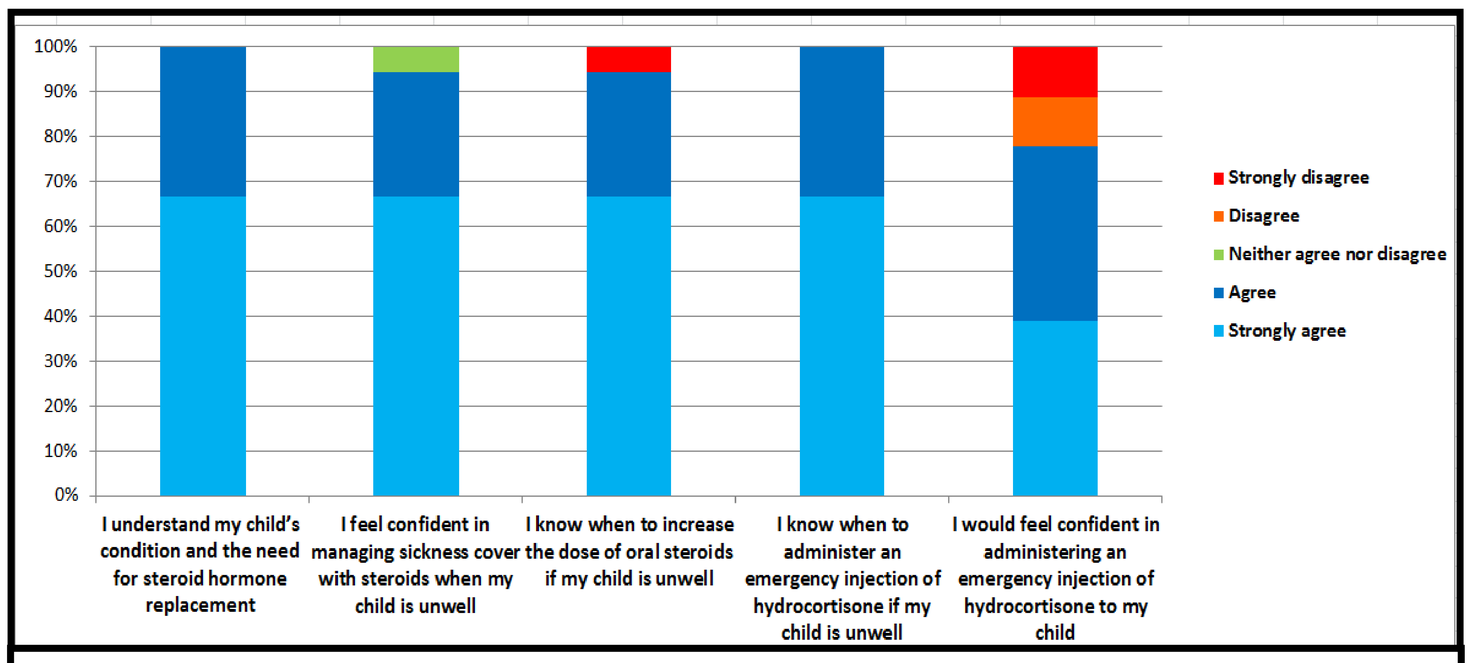

Fig 1. Participant response to statements concerning the annual steroid review

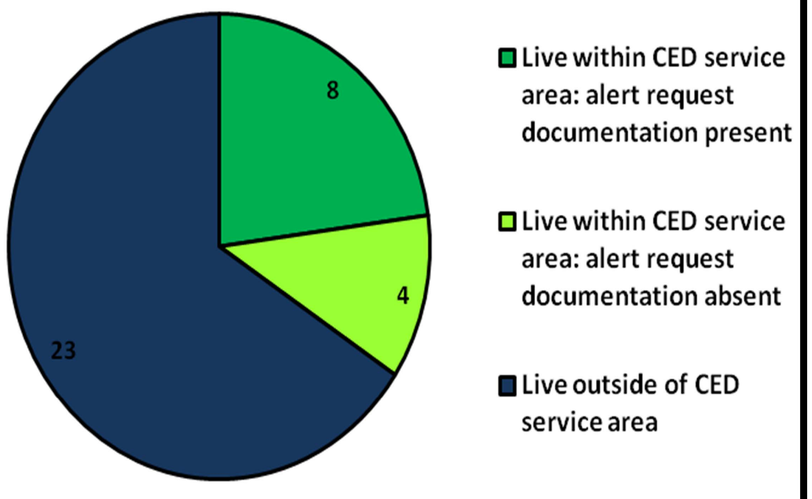

Fig 2 Patients without an alert for the CED (n=35)

Emergency Alert Systems: **60.2%** (n=53/88) and **81.8%** (n=72/88) of patients had an active alert in place for the local CED and ambulance service respectively.

- Clinical CED teams demonstrated an accurate understanding of the alert systems.
- However, issues were identified in the administration of both alert systems.
- These largely concerned the accessibility and wording of the alerts.

Conclusions

- The service evaluation of the annual steroid review yielded positive results, demonstrating improved parental education and confidence in the management of their child's condition.
- Implementation of the ambulance alert system was largely successful, although administration must be improved to achieve coverage of all patients.
- The CED alert system has the potential to enable safe and effective emergency treatment of cortisol deficient patients.
- However, the current system does not provide coverage of all patients, and fails to specify 'cortisol deficiency' as required to ensure appropriate triage and management.
- This will be addressed with the CED and re-audited.

Literature cited

1. Bristol Royal Hospital for Children Department of Paediatric Endocrinology and Diabetes. Clinical standards for management of cortisol deficiency. Bristol: University Hospitals Bristol NHS Foundation Trust; 2015.
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