

Inter-professional tripartite alliance to reduce medication errors in children

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Introduction and aims

- ❖ Healthcare professionals are faced with a number of challenges when prescribing and administering medication to children, due to the complexities of age-related drug calculations.
- ❖ Internationally, multiple studies have shown that the regular occurrence of such errors carries a high potential for unintended harm to patients.
- ❖ We hypothesised that reducing the incidence and severity of medication errors, and therefore improving patient safety, could be achieved by training medical and nursing staff to recognise and avoid errors.
- ❖ In order to create an educational programme, a paediatric tripartite alliance was formed between Medicine, Nursing and Pharmacology.

Methods

- ❖ Prospective audit undertaken, with the aim of recording the number, nature and severity of reported medication errors over a three - month period.
- ❖ Structured educational programme introduced to all medical and nursing staff.
 - ❖ Medical trainees asked to complete a mandatory online pharmacology module.
 - ❖ Nursing staff encouraged to complete one-to-one sessions, led by the Practice Development Nurse.
 - ❖ Lead Pharmacist introduced an educational tool called “Druggle”.
- ❖ Data collected over two separate three-month periods.

Results

Pre-intervention:

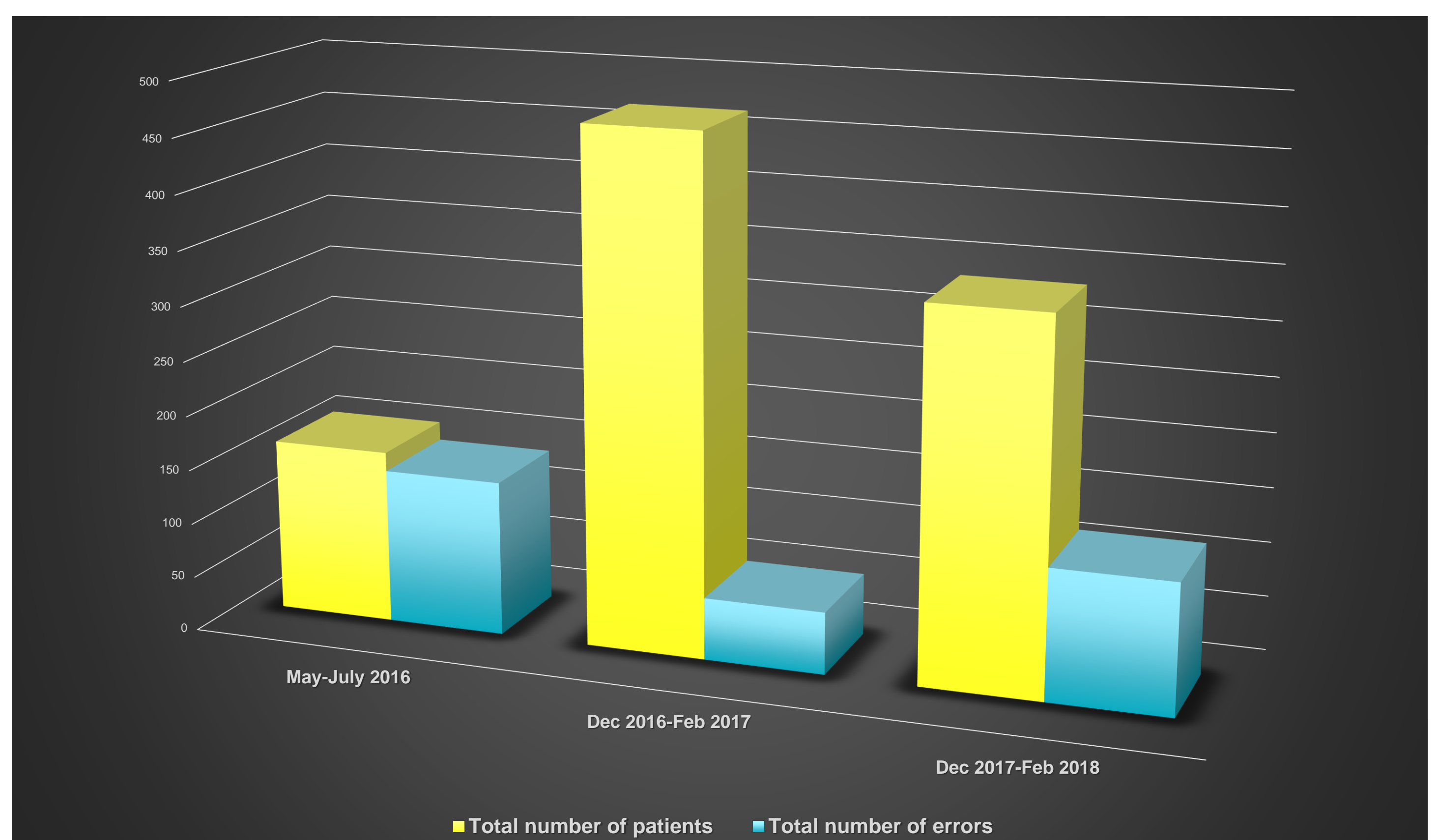
- ❖ Children admitted = 159.
- ❖ Recorded medication errors = 142 (89.3% of patients).

First post-intervention period:

- ❖ Children admitted = 470.
- ❖ Recorded medication errors = 57 (12.1% of patients).
- **Error reduction = 77.2%.**

Second post-intervention period:

- ❖ Children admitted = 338.
- ❖ Recorded medication errors = 120 (35.5% of patients).



Conclusion

The commitment to tackle the issue of medication errors as part of an inter-professional tripartite alliance, coupled with the implementation of a structured programme, have contributed to a significant reduction of medication errors.

Further improvement could be achieved by understanding and addressing:

- ❖ Unaccounted environmental variables (such as the complexity of the individual case, the prescriber's experience, and the timing of the error).
- ❖ Individual factors relating to the prescriber/administrator (such as ability to recall training, perceived work pressures, and stress levels).
- ❖ Specific training needs that were not met by the educational programme.