Re-Audit of NICE Guidelines on IV fluid prescribing in Adults- Did our intervention make a difference?

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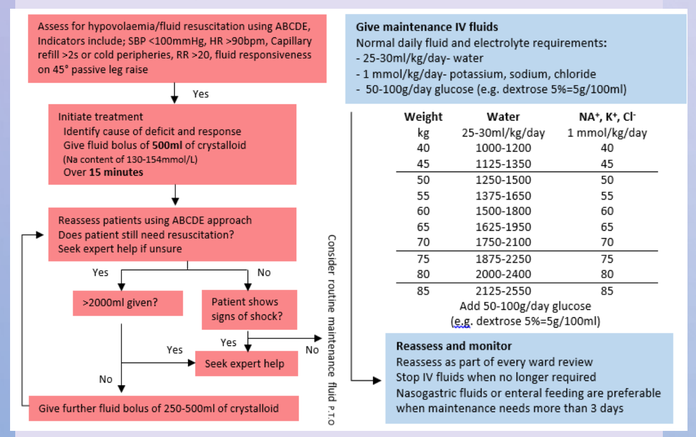
Introduction

Fluids are a drug and if not correctly prescribed can cause serious harm to patients. My initial Audit of the Sheffield teaching hospital surgical department, using the 2013 NICE guidelines for IV fluid prescribing in Adults as a gold standard, found non-compliance in 8 of 11 standards.
The Aim of this Re- Audit was to improve patient safety with the objective to measure the impact of the intervention I implemented and to identify areas of future improvement in adherence of the NICE guidance.

Intervention

The intervention was a teaching session to the foundation doctors with a memory aid for them to carry with them on the wards.



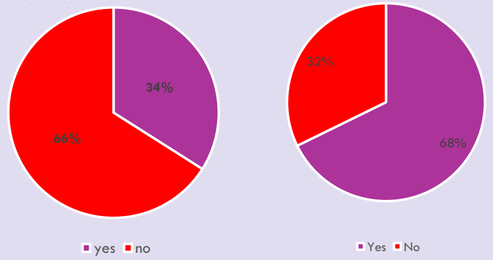
Method

Data collection
The Re-Audit began 3 weeks following the intervention. The drug kardex and notes of 30 consecutive patients were reviewed and data collected using the NICE data collection tool.
Analysis
Microsoft Excel was used to calculate the percentage of adherence for each standard and produce graphical information to allow comparison to the initial audit.
Gold Standard
The 11 standards included:

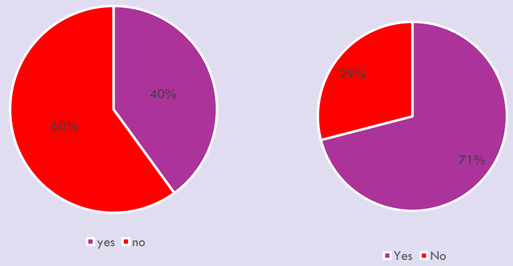
- fluids correctly prescribed;
- patients fluids reviewed as part of every ward round
- patients should be resuscitated using the ABCDE approach and given 500ml bolus and help is sort if signs of shock or over 2 litres of fluid are given;
- patients should be given correct maintenance dose of 25-30ml of water, 1mmol/kg/24hr of sodium potassium and chloride and 50-100g of glucose
- those requiring replacement should have their doses adjusted and reviewed with clinical and biochemical status.

Results

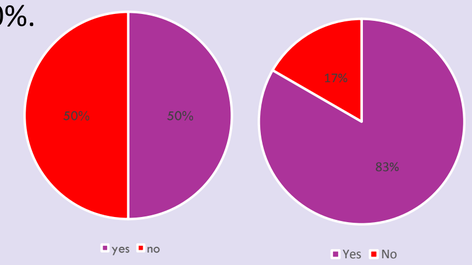
- 68% compared to 34% had daily fluid reviews.



- 100% of fluid prescriptions were correctly completed as before.
- 71% compared to 40% had fluid management plans with a greater proportion including: requirement, assessment and monitoring plans.



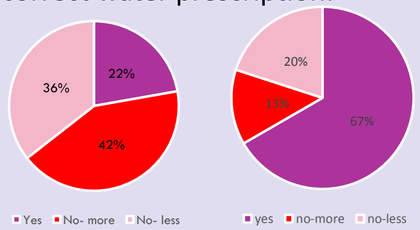
- 100% had deficit cause identified as before.
- 83% compared to 50% received a 500ml crystalloid bolus.
- 75% compared to 50% were reassessed and 83% used the ABCDE approach compared to 50%.



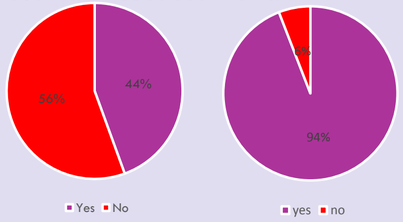
- 100% requiring further resuscitation were managed correctly, as before.

Results

- 67% compared to 22% received the correct water prescription.



- 7% compared to 0% received the correct potassium prescription.
- 100% received more sodium and chloride than required, as before.
- 73% received no glucose, as before.
- 94% compared to 44% had replacement fluids adjusted correctly and 100% compared to 78% had reassessment.



Conclusion

Compliance improved across all standards. However, 100% was not achieved in all standards. To continue improvement I liaised with PGME to incorporate IV fluids into the annual junior teaching programme. I expanded the reach to senior clinicians through audit meetings. I liaised with pharmacy to implement a new fluid kardex, however e-prescribing was since implemented. A annual department audit will be conducted and the trust is considering a trust wide audit.

References

1. National Institute for Clinical Excellence. Intravenous fluid therapy in adults in hospital. *NICE.* 2013: Clinical guideline CG174.