Patient safety alert 22
Reducing the risk of hyponatraemia when administering intravenous infusions to children

NHS
National Patient Safety Agency

Audit checklist

Name of organisation: Belfast Trust

Date: 30 October 2007

Audit checklist prepared by: Christine Murphy / Prof Gary McVeigh

1. Review of NPSA recommended action

Recommended action	Suggested evidence	Assessment	Comment/further action required
Remove sodium chloride 0.18% with glucose 4% intravenous infusions from stock and general use in areas that treat children. Suitable alternatives must be available. Restrict availability of these intravenous infusions to critical care and specialist wards such as renal, liver and cardiac units. Ensure that suitable alternatives are available for use.	Copy of: • purchase records illustrating reduction in use of sodium chloride 0.18% with glucose 4% infusion; • list of areas stocking sodium chloride 0.18% with glucose 4%.	non-compliance	a) Identify number of paediatric admissions for each ward or service area for a 6mth period to identify high risk areas for prioritisation. b) Write to directors / service managers of areas currently stocking NaCl 0.18% (see Appendix 1) advising of new guidelines and requesting they: - advise where infusion should continue to be available, with indication; - what suitable alternatives could be used in non-critical areas.

			c) Review feedback from above and produce: - List of areas that can continue to stock 0.18% - List of suitable alternatives for stock in other wards. - Feedback to service areas and pharmacy re: future arrangements. d) To change stocks as required in line with above e) To update orders and transfer to new stock
Produce and disseminate clinical guidelines for the fluid management of paediatric patients. These should give clear recommendations for fluid selection, and clinical and laboratory monitoring. Ensure that these are accessible to all healthcare staff involved in the delivery of care to children.	Copy of: • clinical guidelines; • date of Drugs and Therapeutics Committee review and approval; • distribution list for clinical guidelines; • audit of compliance with clinical guidelines.	Non - Compliance (guidelines already approved and disseminated at Royal Belfast Hospital for sick children)	Action: To get approval of Regional Guideline by Belfast Trust Drugs and Therapeutics committee. To distribute through cascade and audit meetings.
Provide training and supervision for all staff involved in the prescribing, administering and monitoring of intravenous infusions for children.	Copy of: • training curriculum; • dates of training sessions; • record of staff attending training and level of competency attained; • dates of training updates.	non-compliance	a) Identify relevant staff groups: Medical students, Junior Doctors, SpReg / Consultants, Pharmacists, Ward Sisters, Nursing Staff. b) Provide training through: E-learning module (BMJ); use of existing meetings / cascade. c) Keep record of individuals trained through competence record / existing training records to

			be kept by Service areas. d) NMDTA training for undergraduates – to include e-learning module (BMJ)
Reinforce safer practice by reviewing and improving the design of existing intravenous fluid prescriptions and fluid balance charts for children.	Copy of: • prescription and fluid balance charts; • date of Drugs and Therapeutics Committee review and approval.	Compliance or non-compliance	a) Review existing prescription forms and fluid charts in use in Belfast Trust: - One's used on paediatric wards - Ones used in general wards. b) Review prescription template proposed by NPSA. c) Issue fluid and prescription charts for Belfast Trust
Promote the reporting of hospital-acquired hyponatraemia via local risk management systems and implement an audit programme to ensure NPSA recommendations and local procedures are being adhered to.	Copy of: • regular hospital incident reports featuring episodes of hospital-acquired hyponatraemia and degree of harm; • minutes of meetings to review reports and consider action; • documented action taken; • results of audit of the above parameters.	Compliance or non-compliance	a) Roll out incident reporting for Belfast Trust. b) Provide training incident reporting of risk and to all staff. c) Review reported incidents ? 6monthly. d) Consider chart / laboratory report review to assess reliability of incident data. <u>Audits</u> a) Audit ward stock records against lists of approved wards for stock. <u>Patient monitoring</u> c) Chart review of paediatric patients administered IV fluids to assess compliance with guideline.

2. Review of patient safety incident data involving paediatric infusions for preceding 12 months

Clinical area reporting incident	Number of reports
Accident and emergency	0
Critical care (PICU)	0
General paediatrics	0
Specialist ward areas (e.g. liver/renal/cardiac units)	0
Surgery	0
Trauma and orthopaedics	0
Other	0
Total	0

Clinical outcome	Number of reports
Death	0
Severe (permanent harm)	0
Moderate (significant, but not permanent, harm requiring additional treatment)	0
Low (temporary harm requiring extra observation or minor treatment)	0
No harm	0
Near miss	0
Total	0

3. Overall comments and actions recommended by Drugs and Therapeutics Committee

Comments: Priority will be removing NaCl 0.18% from areas identified. Training for all groups of staff will be done through the e-learning module (BMJ) and audits described above will be rolled out.
Regarding the review of the fluid balance and prescription charts – this is part of a wider area of work for the Belfast Trust looking at the standardisation of forms and documentation.

Action: As detailed under individual points above.

Signature of Drugs and Therapeutics Committee Chair:

Name of Drugs and Therapeutics Committee Chair:

Date:

Date of next annual audit review:

31 October 2008