



Business Services  
Organisation

Directorate of Legal Services

— PRACTITIONERS IN LAW TO THE  
HEALTH & SOCIAL CARE SECTOR —

2 Franklin Street, Belfast, BT2 8DQ  
DX 2842 NR Belfast 3



Your Ref:  
AD-0582-13

Our Ref:  
HYP W50/02

Date:  
5<sup>th</sup> June 2013

Ms A Dillon  
Solicitor to the Inquiry  
Inquiry into Hyponatraemia-related Deaths  
Arthur House  
41 Arthur Street  
Belfast  
BT1 4GB

Dear Madam,

**RE: INQUIRY INTO HYPONATRAEMIA RELATED DEATHS-RAYCHEL  
FERGUSON**

I refer to your letter of 17<sup>th</sup> May 2013 (AD-0582-13) and am instructed that No 18 Solution is still held within a small number of clinical areas for use on specific cohorts of patients. This is in accordance with the recommendations contained in the NPSA Hyponatraemia alert. Please find enclosed a copy of the NPSA alert together with the relevant Departmental Circular for your attention.

I enclose a copy of a chart and table demonstrating the number of bags of No 18 Solution made available to the RBHSC by the Pharmacy from 2000 to 2012. I am instructed that No 18 Solution is a standard licensed solution made by a number of companies. The Trust has advised that the supplier would vary and depend on the contract at that time. The Trust cannot recall any correspondence in relation to IV fluids from the manufacturers regarding No 18.

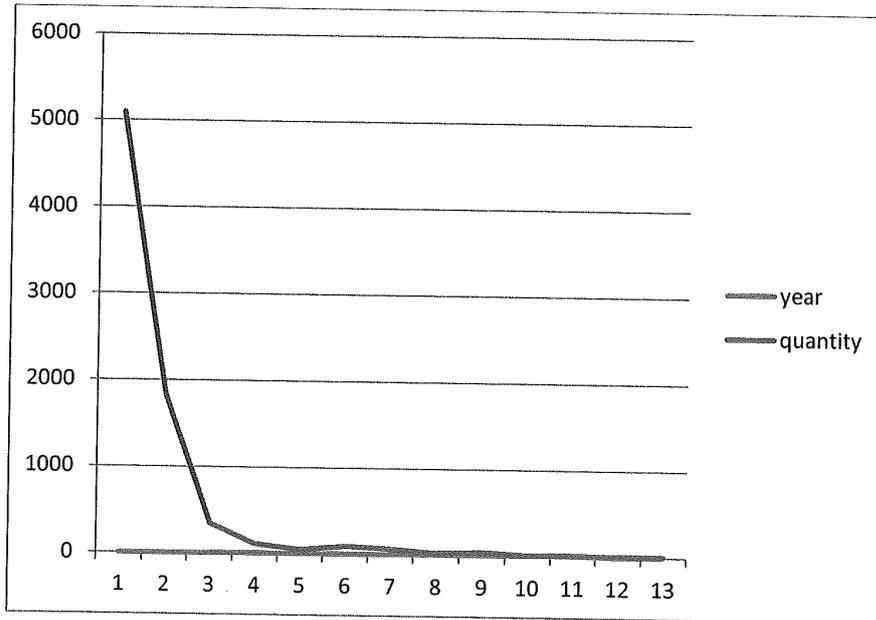
Yours faithfully

Joanna Bolton  
Solicitor Consultant

*Providing Support to Health and Social Care*



Supplies of Glucose 4% Sodium Chloride 0.18% ( No 18 solution) 500ml infusion made to RBHSC by RVH Pharmacy 2000-2012 inclusive



year	quantity
2000	5095
2001	1834
2002	344
2003	112
2004	51
2005	94
2006	69
2007	26
2008	45
2009	14
2010	21
2011	0
2012	7

## Reducing the risk of hyponatraemia when administering intravenous infusions to children



Reference number  
0409

Central Alert System (CAS) reference  
NPSA/2007/22

Issue date 28 March 2007

Action date (if applicable) (date field) 30 September 2007

DH Gateway reference  
7738

Type Alert

This Patient Safety Alert advises to healthcare organisations how to minimise the risks associated with administering intravenous **infusions to children**.

The development of fluid-induced **hyponatraemia** (a plasma sodium of less than 135mmol/L) in the previously well child undergoing elective surgery or with mild illness may not be well recognised by clinicians.

Since 2000, there have been four child deaths (and one near miss) following neurological injury from hospital-acquired hyponatraemia reported in the UK.

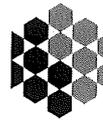
International literature cites more than 50 cases of serious injury or child death from the same cause, and associated with the administration of hypotonic infusions.

Healthcare organisations should take the following actions:

1. 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.
2. Produce and disseminate clinical guidelines for the fluid management of paediatric patients.
3. Provide adequate staff training and supervision.
4. Review and improve the design of existing intravenous fluid prescriptions and fluid balance charts for children.
5. Promote the reporting of hospital-acquired hyponatraemia incidents via local risk management reporting systems. Implement an audit programme.

### Notes

Although the deadline for actions has passed, this guidance remains best practice. It should be followed to prevent future patient safety incidents.



**For action:**

Chief Executives of HSC Trusts  
Chair -Regional Paediatric Fluid Therapy Working Group  
NI Medicines Governance Team  
Regulation and Quality Improvement Authority (for cascade to independent hospitals, hospices and relevant regulated establishments)

Castle Buildings  
Stormont Estate  
Belfast  
BT4 3SQ

Tel: [REDACTED]

Fax: [REDACTED]

Email:

**For information:**

David Sissling, Chief Executive Designate, HSCA  
Chief Executives HSS Boards  
Medical Directors HSC Trusts  
Medical Director NIAS  
Directors of Public Health  
Directors of Nursing HSC Boards/ HSC Trusts  
Directors of Pharmacy HSC Boards/ HSC Trusts  
Chair – CREST  
Northern Ireland Clinical & Social Care Governance Support Team  
Professor R Hay, Head of School of Medicine and Dentistry, QUB  
Professor James McElnay, Dean of Life and Health Science, UU  
Professor Jean Orr CBE, Head of School of Nursing and Midwifery, QUB  
Dr Carol Curran, Head of School of Nursing, UU  
Ms Donna Gallagher, Staff Tutor of Nursing, Open Nursing

**Circular HSC (SQS) 20/2007**

27 April 2007

Dear Colleague

**NPSA PATIENT SAFETY ALERT 22: REDUCING THE RISK OF HYPONATRAEMIA  
WHEN ADMINISTERING INTRAVENOUS INFUSIONS TO CHILDREN**

**Introduction**

1. The National Patient Safety Agency (NPSA) has issued advice to the NHS on how to reduce the risks associated with administering infusions to children (see below). The recommendations made in the NPSA Patient Safety Alert relate to paediatric patients from one month to 16 years old. They are not intended for paediatric or neonatal intensive care units or specialist areas such as renal, liver, and cardiac units where hypotonic solutions have specialist indications.
2. HSC organisations are required to implement the actions identified in the Alert by **30 September 2007**. Independent sector providers which administer intravenous fluids to children will also wish to ensure that the actions specified in the alert are implemented in their organisations within the same time scale.

## NPSA Alert 22

3. The NPSA Alert 22 is available on [http://www.npsa.nhs.uk/site/media/documents/2449\\_PaediaticInfusonsPSAFINAL.pdf](http://www.npsa.nhs.uk/site/media/documents/2449_PaediaticInfusonsPSAFINAL.pdf)

A number of resources have been developed by NPSA to support implementation of the Alert. All materials are available on [www.npsa.nhs.uk/health/alerts](http://www.npsa.nhs.uk/health/alerts). These include:

- A **guideline template** to assist with the production of local clinical guidelines;
- A **prescription template** providing ideas on how local prescriptions for intravenous fluids can be improved;
- An **e-learning module** for clinical staff prescribing paediatric infusion therapy;
- A **practice competence statement** for the prescribing and monitoring of intravenous infusions;
- An **audit checklist** to assist organisations with an annual audit process to ensure that the recommendations are embedded and maintained within practice; and
- A **patient briefing**.

### Local Development of Clinical Guidelines

4. It should be noted that one of the actions in the NPSA Alert is for each NHS organisation to produce and disseminate local clinical guidelines for the fluid management of paediatric patients based on the suggested NPSA guidelines template. As The Northern Ireland Regional Paediatric Fluid Therapy Working Group and the NI Medicines Governance Team were part of the NPSA external reference group, the Department has asked both of these groups to work collaboratively to produce an intravenous fluid clinical guideline in accordance with NPSA guidance, by **31 July 2007**. This will then be disseminated to each HSC Trust for local implementation and monitoring.

### ACTION

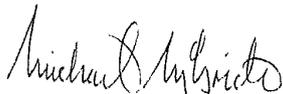
5. HSC Trust Chief Executives are responsible for implementation of NPSA Alert 22. All Trusts should:
- a. Develop an action plan and ensure that action is underway by **2 July 2007**;
  - b. Complete actions by **30 September 2007**; and
  - c. Return the audit template, by **31 October 2007**:  
[www.npsa.nhs.uk/site/media/documents/2452\\_Paediatic\\_audit\\_checklist.doc](http://www.npsa.nhs.uk/site/media/documents/2452_Paediatic_audit_checklist.doc) to the Safety, Quality and Standards Directorate in DHSSPS at [qualityandsafety@dhssps.gov.uk](mailto:qualityandsafety@dhssps.gov.uk). The purpose of this return is to ensure full implementation of the actions as set out in the Alert.
6. The return of the audit proforma should be accompanied by an endorsement by the Chief Executive to confirm that the named HSC Trust has undertaken an internal audit in line with the audit tool, and that the recommended actions have been fully implemented.
7. The audit proforma should also be copied to the Regulation and Quality Improvement Authority who may wish to incorporate the Trust's evidence as part of their clinical and social care governance reviews in 2007/08. RQIA will also wish to ensure that relevant independent establishments are compliant with this Alert.

Working for a Healthier People

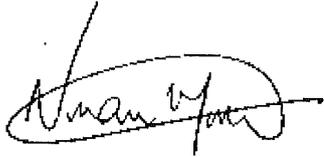
**Conclusion**

- 8. Much work has already been done in HSC organisations to promote the safe and effective care of children receiving intravenous fluid. The NPSA Alert 22 builds on the experience gained locally and seeks to promote a consistent approach across provider organisations. You are asked to ensure that this circular is widely communicated to staff.

Yours sincerely



**DR MICHAEL McBRIDE**  
Chief Medical Officer



**DR NORMAN MORROW**  
Chief Pharmaceutical Officer



**MR MARTIN BRADLEY**  
Chief Nursing Officer