Your Ref: NSCB04/1
NSCW50/1
NSCS071/1

Ms Angela Crawford
Directorate of Legal Services
2 Franklin Street
BELFAST
BT2 8DQ

Our Ref: BMcL-0027-12

Date: 13th November 2012

Dear Ms Crawford,

Re: Raychel Ferguson Preliminary

The Inquiry has received from Dr Murray Quinn, retired consultant paediatrician formerly of Altnagelvin Hospital Trust, the attached copy slide presentation headed "Paediatric Hyponatraemia: Who Gets it and Why" . This appears to be a presentation of an audit of all paediatric cases of hyponatraemia in Altnagelvin Hospital over a 21 month period. . A copy of the slides, which are undated, is attached.

We wish to know when this audit was carried out, for what purpose it was carried out, and whether the authors Drs McMorrow and Corrigan were at the material time employed by the Altnagelvin trust, or , if not, by whom they were employed. The Inquiry may wish to seek statements from them.

We also require a copy of the audit report on which these slides were based, appropriately redacted for data protection purposes, and any documents relating to the commissioning of the audit, and the dissemination of its findings, both within the Altnagelvin Trust and by the Trust to any other persons or bodies.

Yours sincerely,

Brian McLoughlin
Assistant Solicitor to the Inquiry

Secretary: Bernie Conlon
Arthur House, 41 Arthur Street, Belfast, BT1 4GB
Email: inquiry@ihrdni.org **Website:** www.ihrdni.org **Tel:** 028 9044 6340 **Fax:** 028 9044 6341

Paediatric Hyponatraemia: Who Gets it and Why?

Dr Aoife Mc Morrow

Dr Neil Corrigan

Lead Audit Assistant: Resty Bautista

Aims

- Review of paediatric hyponatraemia:
  - Incidence
  - Aetiology
  - Management

Methods

- Retrospective chart review
- All children admitted to Altnagelvin Hospital over a 21 month period
- Sodium <133
- NICU/PNW excluded
- Audit department

Results

- 6,276 admissions
- Incidence 2.3% (147 children)
- 136 charts reviewed
- Medical 86% vs surgical 14%
- No adverse outcomes identified

Normonatraemia on Admission

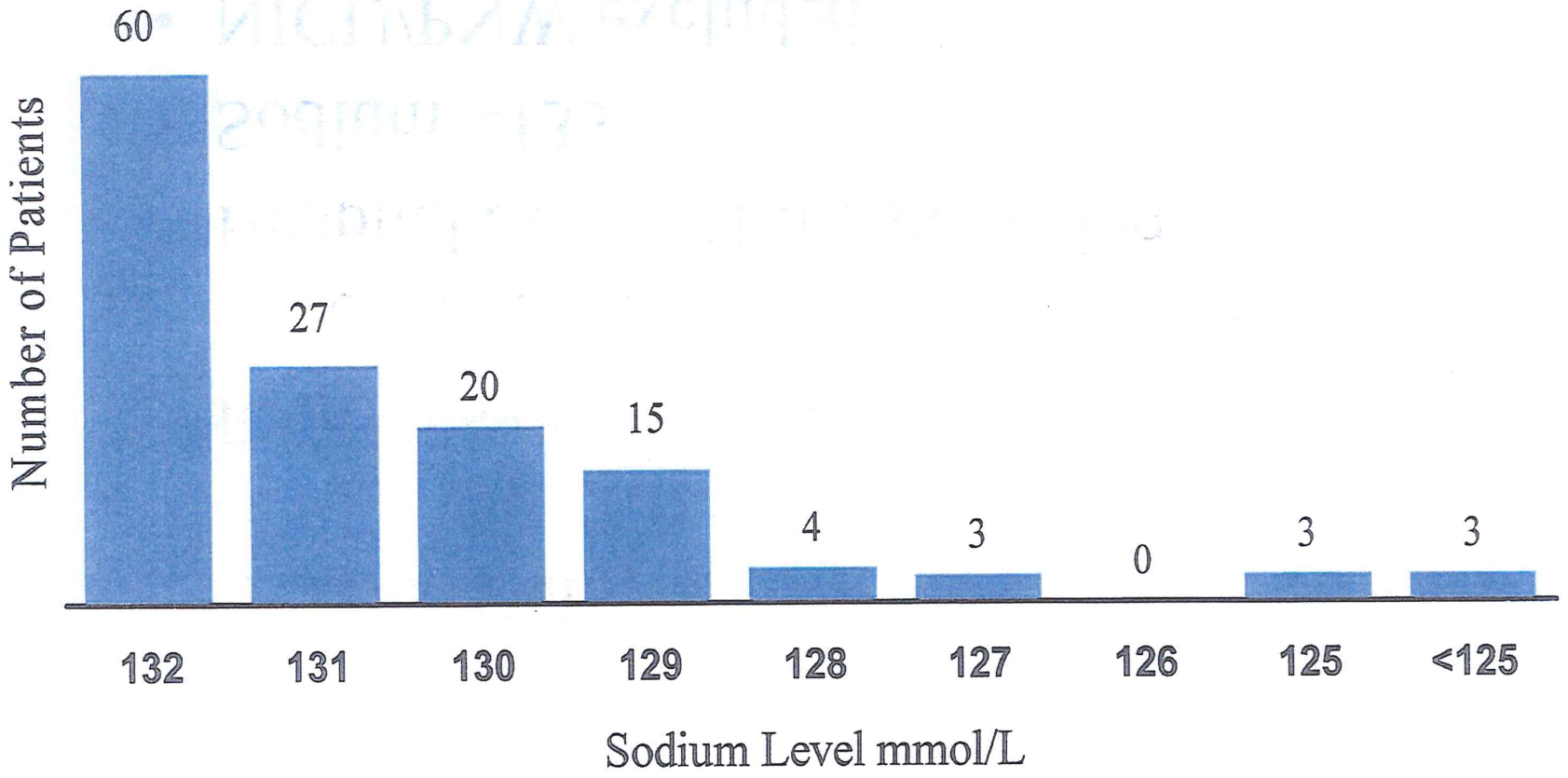
N = 17 (12%)

- 10 medical : 7 surgical children
- 75% received initial IV fluids
- 92% prescribed 0.45% saline / dextrose
- When hyponatraemia detected 43% changed to 0.9% saline
- No difference in mean lowest Na^+
- Lower correction time with oral rehydration

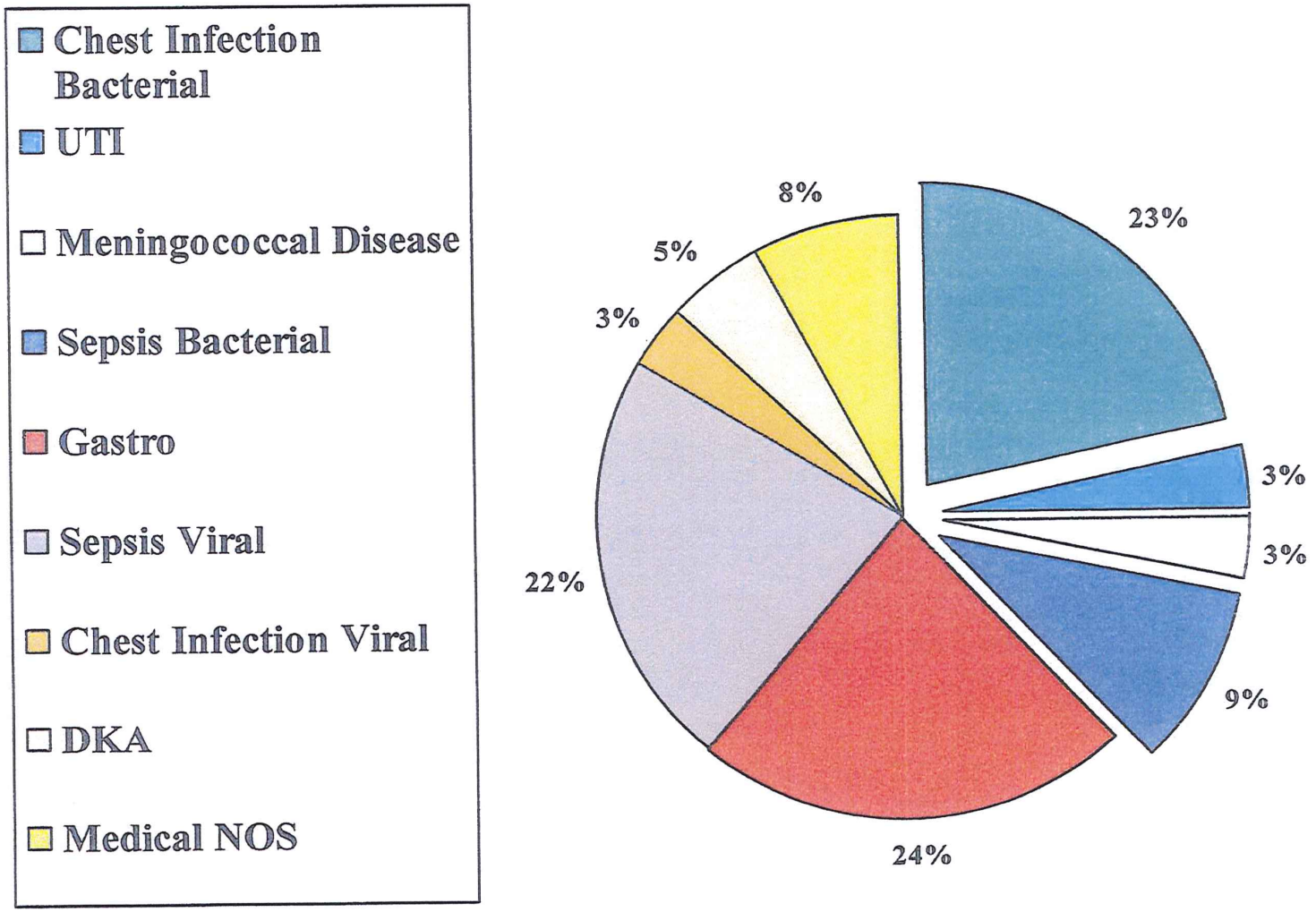
Hyponatraemia on Admission

- N = 88%
- 68% received IV fluids
- Mean Na^+ 130 in group receiving IVF
- No difference in mean time to correction (23 vs 22 hrs)
- 64% prescribed 0.45% saline /dextrose
- Lower mean time to correction with isotonic solutions

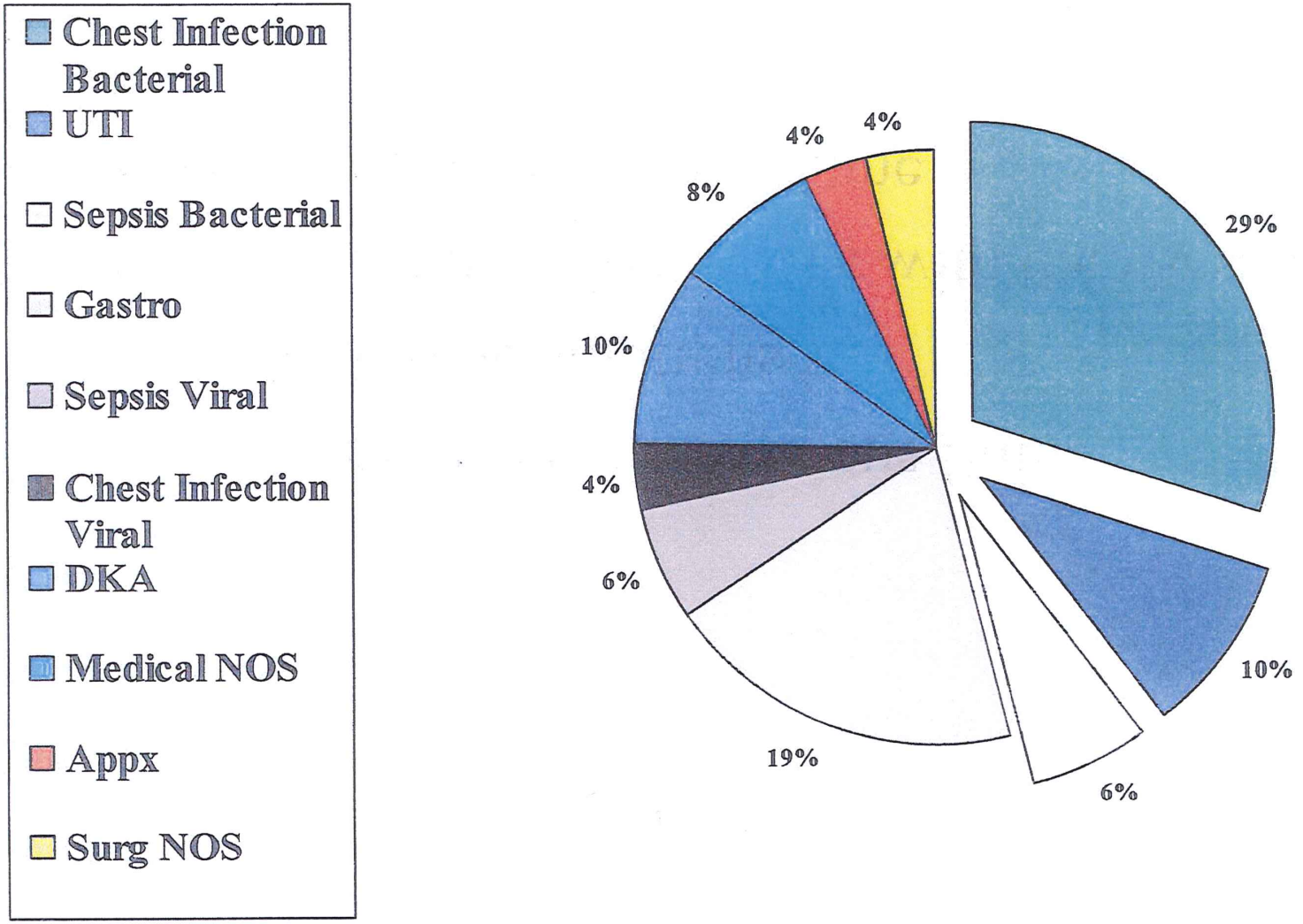
Distribution of Lowest Na+



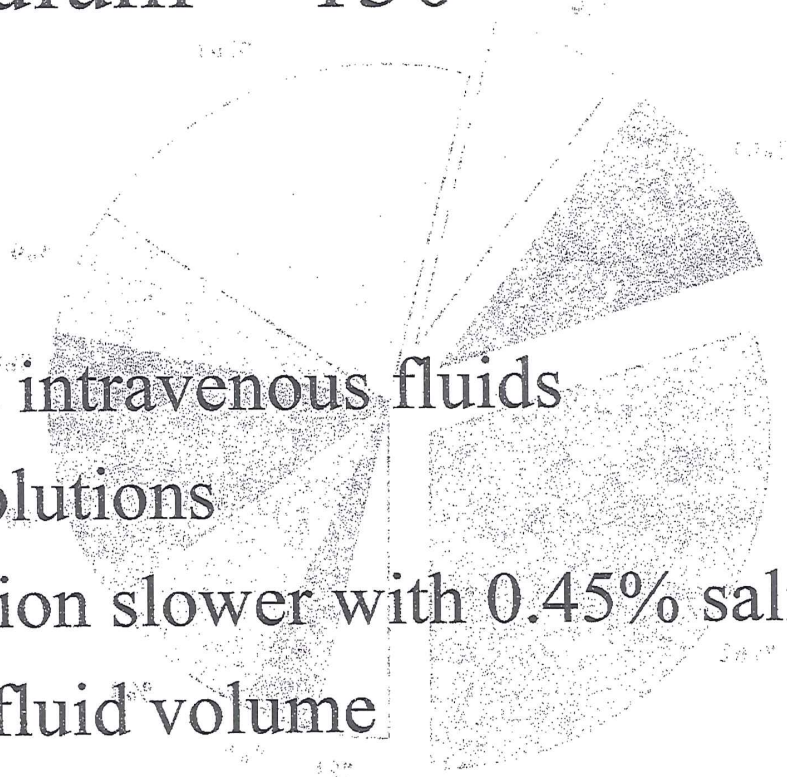
Medical Diagnoses



Sodium < 130



Sodium < 130



- 85% prescribed intravenous fluids
- 50% isotonic solutions
- Time to correction slower with 0.45% saline
- 48% restricted fluid volume

SIADH

- Likely aetiology in 66%
- 55% prescribed IV fluids
- If given IV fluids: 41% restricted volumes

Appendicitis

- 9 patients
- Overall incidence 11%
- 7 children hyponatraemic on admission
- 56% prescribed 0.45% saline / dextrose

Conclusions

- A common complication of both medical and surgical illness
- Incidence ↑ in appendicitis and chest infections
- May be related to severity of illness

Generous Volume

- 7 patients
- 6 medical:1 surgical
- Overall mean time to correction longer

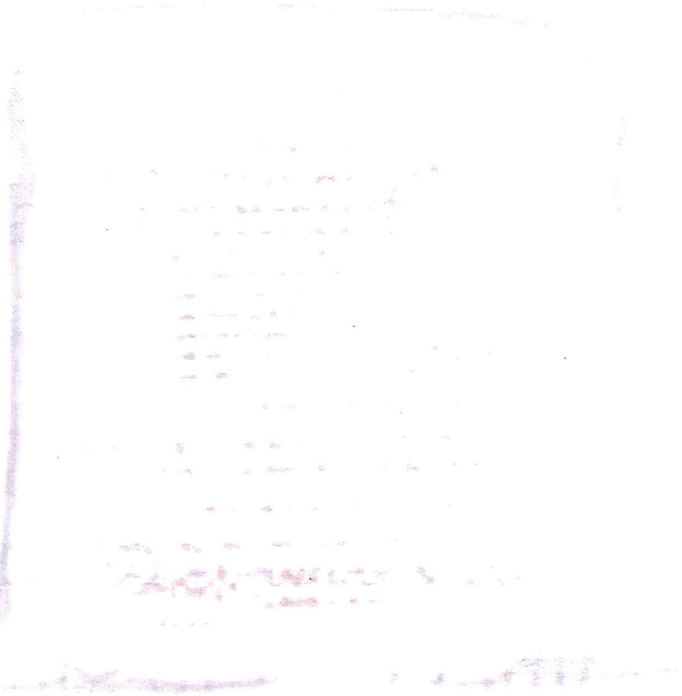
Recommendations

- Continue to increase awareness of hyponatraemia
- Re-audit following implementation of new DoH guidelines

Conclusions

- Very hypotonic solutions no longer prescribed
- Isotonic solutions appear to correct hyponatraemia more quickly
- Possible under-prescribing of normal saline

? Questions



Acknowledgement

The Author / Authors of this audit project wish to acknowledge the resources provided by Altnagelvin H&SST through the Clinical Audit Department in support of this piece of work.