NOTES OF MEETING OF 26 SEPTEMBER 2001 ON ACUTE HYPONATRAEMIC IN CHILDREN IN ROOM D2, CASTLE BUILDINGS

PRESENT:	Dr P Darragh	Chair
	Dr B Taylor	RBHSC
	Dr D Lowry	Craigavon Area Hospital
	Dr J Nesbitt	Altnagelvin Hospital
	Mr G Marshall	Erne Hospital
	Mr B McCallion	RBHSC
	Dr F Kennedy	NHSSB
	Dr C Loughrey	BCH
	Ms E McElkerney	Ulster Hospital
	Dr P Crean	RBHSC
	Dr Mc McCarthy	DHSSPS
	Dr M Mark	DHSSPS
APOLOGIES:	Dr J Jenkins	Antrim Area Hospital

1. Dr Darragh welcomed all to the meeting. He explained that concerns had arisen about hyponatraemia occurring in children after surgery. This had also been highlighted in a recent BMJ article –

   BMJ 2001; 322 : 780-2, Lesson of the Week. Acute hyponatraemia in children admitted to hospital retrospective analysis of factors contributing to its development and resolution.

2. Dr Taylor informed the meeting about the background, incidence of cases seen in RBHSC and patients who are particularly at risk of hyponatraemia.

   This is a problem that had been present for many years. Fluid replacement in children is complex and while guidelines are in place for acute management, chronic management is not as well covered. Patients at risk include children post surgery and those with acute reactions to a number of stressors. The problem is that of water intoxication rather than Na depletion. Problems can arise with incorrect weighing of children, due mainly to dual recording of kgs and the avoirdupois system.

   Calculation of replacement fluid can be calculated in a number of ways; either on an hourly basis/daily basis. He proposed a number of recommendations to prevent the occurrence of hyponatraemia.

3. A general discussion then followed on the management of children in hospital. Issues highlighted were that current guidelines for fluid replacement in children developed 50 years ago by paediatricians were for the normal child and did not translate well to the post operative child. It was stressed that it might be difficult for junior hospital staff and nurses to have children with different fluid regimes in a ward; a single system reduces errors particularly with staff changes. There was agreement that guidelines should be simple and that all patients in whom "surgical stress" and fluid replacement was anticipated should have a U & E undertaken.

New patient (point of care) testing was discussed. While these give accurate results, accurate recording may not always occur in the files.

The problems of junior hospital doctors taking blood from children were highlighted. Audit of guidelines is encouraged.

4. Dr McCarthy showed CREST Guidelines for Pre-eclampsia. This is in the form of a laminated chart with easy to understand pathways. It was decided this would be a useful format to follow.

5. Discussion followed on exact fluid balance and the current infusions. Correct glucose and NaCL concentrations were essential in maintaining electrolyte balance.

6. Dr McCarthy highlighted the fact that guidance is advisory and management in more complicated cases will be at the discretion of the clinician. Guidance would focus on weight, U & E, fluid balance and routine fluid perioperatively with both replacement and maintenance regimes.

7. The Group felt there was a lack of a paediatrician's view, which it was decided was essential.

8. It was decided that a small group should undertake the drafting of guidelines and audit protocol.

ACTION

9. Small Group to be formed / Dr McCarthy

ACTION: Dr McCarthy

10. Dr B Taylor undertook to inform CSM of a recent death in Altnagelvin Hospital associated with hyponatraemia.

ACTION: Dr Taylor

11. Dr Darragh thanked the Group for its input and closed the meeting.