Audit of Documentation of Fluid Requirements & Fluid Balance on Children following Surgery

July 2003

The Clinical Audit Department
Altnagelvin Area Hospital
Audit of Documentation of Fluid Requirements & Fluid Balance on Children following Surgery

Standards used:

‘Guidelines for Record and Record Keeping’ Nursing & Midwifery Council (April 2002)

Sample size

33 surgical admissions were admitted to CHW from 01/01/03 to 31/05/03, of these, 14 went to theatre and received IV fluids. The fluid balance charts of these 14 patients were used in this audit.

1. Age of patient

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>7yrs</td>
<td>15%</td>
</tr>
<tr>
<td>8yrs</td>
<td>7%</td>
</tr>
<tr>
<td>9yrs</td>
<td>7%</td>
</tr>
<tr>
<td>10yrs</td>
<td>50%</td>
</tr>
<tr>
<td>12yrs</td>
<td>7%</td>
</tr>
<tr>
<td>13yrs</td>
<td>7%</td>
</tr>
<tr>
<td>15yrs</td>
<td>7%</td>
</tr>
</tbody>
</table>

2. Male – 64% Female – 36%

3. Type of surgery

Appendicectomy – 86%
Removal of cyst – 7%
Torsion of testes – 7%

4. Is the patient’s name on the chart?

Yes 93% No 7%
5. Is the patient’s ward on the chart?
   Yes 50%  No 50%

6. Is the date on the chart?
   Yes 86%  No 14%

7. Is the Hospital No. on the chart?
   Yes 29%  No 71%

8. Was it totalled at the end of the day?
   Yes 0%  No 100%

9. Is the patient on IV fluids?
   Yes 100%  No 0%

10. Type of IV infusion
    0.45% NACL + 2.5% Dextrose  93%
    3(23%) of these also had 0.9% NACL
    Hartman’s Solution 7%

11. How many Mls/kg fluids was the patient commenced?
    Maintenance Fluids (DoH guidelines) 93%
    100mls/hr x 6 hrs on return from theatre 7%

12. Are they prescribed?
    Yes 100%  No 0%

13. If yes, are they legible?
    Yes 100%  No 0%
14. Are they signed?

Yes 86%  No 14%

15. Were they commenced as ordered on prescription

Yes 100%  No 0%

16. Was the patient weighed on admission/prior to IV fluids?

Yes 93%  No 7%

17. Has the patient had a U&E checked prior to IV Fluids?

Yes 86%  No 14%

18. Has the patient had a U&E checked daily while on fluids?

Yes 86%  No 0%  N/A 14%  (1 day only)

19. Any changes noted on chart e.g. tissued etc

- 500mls NACL infused over 1 hr. as not passed urine
- Fluids discontinued x 2 hrs. – Reason not documented
- 200mls infused in theatre but not entered on chart
- Fluids stopped for antibiotics – documented on chart
- Cannula tissued – documented on chart
- Stopped to go to X-ray – documented on chart
- Fluids in theatre not entered on chart – “bag disposed of in theatre”
- Fluids reduced – documented on chart
- No fluids entered for time in theatre – left blank
- Fluids changed to 0.9% NACL as Na low – documented in care plan
- Fluids discontinued as prescribed – documented
- Fluids in Theatre commented on – but no total entered
- Fluids stopped for period - documented but not reason
- 500mls infused in theatre but not entered on chart
- 300mls infused in theatre but not entered on chart – left blank
20. *Was urinary output entered by (a) amount e.g. mls*  
   (b) *Description e.g. PU*  
   (c) *No detail* (in one 24hr)  
   (d) “++++”  
   Note: Some patients had both “mls” and “PU” documented

<table>
<thead>
<tr>
<th>Question</th>
<th>Option A</th>
<th>Option B</th>
<th>Option C</th>
<th>Option D</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. Had the patient diarrhoea</td>
<td>Yes 14%</td>
<td>No 86%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. If yes, how is it described?</td>
<td>(a) By amount e.g. mls 0%</td>
<td>(b) By “+++” 0%</td>
<td>(c) By description e.g. large 100%</td>
<td>(d) No detail 0%</td>
</tr>
<tr>
<td>23. Was the patient vomiting</td>
<td>Yes 36%</td>
<td>No 64%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. If yes, how is it described?</td>
<td>(a) By amount e.g. mls 60%</td>
<td>(b) By “+++” 0%</td>
<td>(c) By description e.g. large 60%</td>
<td>(d) No detail 0%</td>
</tr>
</tbody>
</table>

Note: Some patients had both “mls” and “PU” documented

25. *Is the oral intake recorded regularly e.g. after each meal*  
   **Yes 100% (after period of fasting)**
26. If so, are IV fluids adjusted accordingly?

<table>
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<th>Yes</th>
<th>93%</th>
<th>No</th>
<th>7%</th>
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</table>

Comment – on 2 occasions oral fluids tolerated for 12 and 15 hrs before fluids reduced

Conclusions

- Patient’s details are not documented on all Fluid balance charts
- Fluid balance charts are not tallied at end of the day
- When patient goes to Theatre, fluids infused in Theatre are not documented on to the Fluid balance chart (Total infused in theatre is calculated on anaesthetic sheet)
- Not all IV prescriptions are signed.
- 93% children received Maintenance Fluids in line with DOH guidelines (2002).
- Urinary output not documented for long periods, some documented in millilitres and ‘PU’ on same chart
- IV Fluids are not always reduced as oral fluids increased