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A Snapshot Survey of Fluid Prescribing

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In March 2008 a consensus guideline was published in the United Kingdom to advise on intravenous fluid prescribing in adult surgical patients (GIFTASUP).¹ From this document a series of prescribing rules were developed for our institution. We performed a “snapshot” survey of all surgical inpatients to determine whether these rules were being followed.

The prescribing rules generated by the GIFTASUP document were as follows:

- 1) Use CSL, not 0.9% NaCl, for crystalloid resuscitation or replacement.
- 2) Do not use 0.5% dextrose or dextrose/saline for resuscitation or replacement of deficit.
- 3) Use fluid balance chart and regular (daily) weights to ensure that maintenance requirements are met.
- 4) Treat hyponatremia with 0.9% NaCl.
- 5) Use CSL to match other bowel losses volume for volume.
- 6) Ensure clear documentation of a fluid plan/regimen.

The case notes, fluid prescription charts, and patient observation charts were examined for the preceding 24 hours. Along with adherence to the prescribing rules, we also recorded volume and type of fluid administered and a score for the quality of documentation.

101 patients were studied with roughly a 3:1 emergency:elective split. Intravenous fluids had been given in 53 patients.

Use of 0.9% saline, 5% dextrose, and dextrose/saline solutions was reassuringly low, but the almost complete absence of documentation regarding the indication for IV fluids made analysis difficult. In the patients with documented gastrointestinal tract losses, less than half were given CSL and there was no correlation between gastrointestinal tract loss and volume of fluid administered. Admission weights had been recorded for most elective patients but for only 5% of emergency patients, and no patients had any other weight documented.

It would appear from this survey that the prescribing advice from the British consensus group is not being followed. We are currently in the process of developing an “intravenous fluid team” similar to those managing parenteral nutrition or epidural catheters to take over the fluid management of these patients.

1. Powell-Tuck J, Gosling P, Lobo DN, et al. *British consensus guidelines on intravenous fluid therapy for adult surgical patients (2008)*. Available at: http://www.bapen.org.uk/pdfs/bapen_pubs/giftasup.pdf.