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Improving the management of the paracetamol poisoned patient

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Dear Editor,

We read with interest the article by Pettie et al. [1] and commend the group for aiming to improve the management of paracetamol overdose.

We note a high proportion of (25.9%, n = 294) RIE patients in the 12-h SNAP protocol group did not have a 20-h blood concentration, largely as the result of self-discharge (n = 164) or medical decision (n = 118). Of these, six had elevated and rising ALT activity after 10 h of acetylcysteine including presumably one with a 10-h ALT of 961 U/L. It is reassuring to see a low rate of hepatotoxicity and coagulopathy (and zero deaths in Scotland), presumably attributable to excluding those presenting with hepatotoxicity. However, with imbalanced loss to follow up by 20 h, low event rates, and by modeling only the highest measured ALT (rather than rise from baseline [2,3]), a subtler efficacy signal may have been masked.

One strategy that may help prevent early discharge, in patients with signs of early liver injury, is to treat all patients requiring acetylcysteine with a 2-bag 20-h regimen [4,5], only ceasing the infusion for patients at low risk of developing hepatotoxicity (i.e. ALT <40 U/L and a low paracetamol concentration) after 12-h of treatment [3].

It should also be acknowledged that the SNAP studies were performed under the supervision of specialist toxicology units. Wider adoption at other hospitals needs to be monitored to ensure safety and efficacy.

We look forward to further studies optimizing the dose and duration of acetylcysteine treatment to improve treatment of the paracetamol poisoned patient.

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