



RCEM Position Statement

Use of the SNAP Regime for the Treatment of Paracetamol Toxicity

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Paracetamol toxicity has traditionally been treated by a 21-hour infusion (3 separate infusions) of N'Acetylcysteine (NAC). Another treatment regime for the treatment of paracetamol toxicity known as the Scottish and Newcastle Acetylcysteine Protocol (SNAP) is also available and only requires a 12-hour infusion (2 separate infusions). Although the MHRA issued a position statement advising there was insufficient evidence to recommend the use of SNAP in 2017, a wealth of data to support the safety of the protocol was published in 2019 [1]. There is little published evidence for the use of SNAP regime in children, hence there is some controversy on this; however, use in children is becoming more common. The SNAP regime for both adults and children can be found on the National Poisons Information Service / Toxbase website [2].

RCEM recommends that the use of the SNAP regime to treat paracetamol toxicity should become the default standard practise in all emergency departments. It has been shown to be as effective as the traditional regime in preventing liver injury, with fewer adverse reactions (anaphylactoid reactions).

RCEM supports the routine use of the SNAP regime.

The SNAP regime not only offers significant benefits to patients in terms of fewer side effects but also reduced length of stay in hospital.

The reduced length of hospital stay can play an important part in hospital patient flow, helping to mitigate against ED crowding. It should however be noted that the reduced length of hospital stay can only be realised if the appropriate mental health liaison services are in place to support safe discharge throughout the 24-hour day.

Emergency departments should be familiar with the procedure of not only commencing the SNAP regime, particularly in setting of a staggered overdose, but also the procedure required to ensure that the infusion has been successful as measured by 10-hour haematology and biochemical blood sampling.

The introduction of the SNAP protocol should involve liaison with your trust's clinical biochemist, as it involves measurement of paracetamol levels during acetylcysteine infusion, and some paracetamol assays may not be suitable for this purpose.

RCEM accepts that there may be occasions when a senior clinician feels it may be more appropriate to use the traditional NAC regime e.g. delayed presentation of paracetamol toxicity.

Patients who have received NAC therapy should receive an appropriate patient information leaflet.

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References

1. Safety and Efficacy of the SNAP 12-hour Acetylcysteine Regimen for the Treatment of Paracetamol Overdose. Pettie JM et al. *EClinicalMedicine* 2019 (11) 11–17
<https://www.thelancet.com/action/showPdf?pii=S2589-5370%2819%2930066-5>
Accessed 21.05.2021

2. National Poisons Information Service
<https://www.toxbase.org/>