

SNAP 12-hour N-acetylcysteine regimen for treatment of Paracetamol OD

A new regimen for treatment of paracetamol overdose has been developed and has been in use in Edinburgh, London and Newcastle for 3 years now. A recent paper reviewing their experience published in The Lancet has shown no difference in rates of hepatotoxicity and lower rates of adverse drug reactions. ([https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(19\)30066-5/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(19)30066-5/fulltext))

NHS Lanarkshire will therefore be moving to the use of this regimen for all paracetamol overdoses, including delayed presentations of single acute overdose, therapeutic excess and staggered overdose.

You will find the details of the regimen on Toxbase and the new prescription charts will be available in clinical areas.

Below is a guide for how to use the protocol:

- Determine need for N-acetylcysteine treatment as before as per Toxbase
- If N-acetylcysteine required, refer to 12-hour protocol on Toxbase and prescribe on SNAP prescription chart.
- 10 hours after the start of the infusion (2 hours before the 2nd bag finishes), take bloods
- Can discontinue after the 2nd bag if:
 - INR is 1.3 or less **AND**
 - ALT is within the normal range **AND**
 - Paracetamol concentration is less than 10 mg/L **AND**
 - Patient has no symptoms suggesting liver damage.
- If **ALL** of these criteria are not met:
 - Continue infusion with a 3rd bag of NAC at the same dose and rate as the 2nd. i.e. 200mg/kg over 10 hours.
 - Repeat bloods again after a further 10 hours of treatment
- Can discontinue treatment after 3rd bag (22 hours after commencing NAC) if:
 - INR is 1.3 or less **AND**
 - ALT is less than two times the upper limit of normal **AND**
 - ALT is not more than double the admission measurement
- If **ALL** of these criteria are not met:
 - Continue infusion at same dose and rate
 - Discuss with NPIS
 - Discuss with Liver unit if not already involved
- If discharging patient, issue the patient advice leaflet on Toxbase