Intravenous N-Acetylcysteine (NAC) Typical Dosing Scenario

For those patients who have taken a potentially toxic amount of acetaminophen, intravenous N-Acetylcysteine is the recommended treatment. Using a 3% solution, the following dosing schedule is recommended for your patient. Please refer to and follow the Poison Centre’s recommendations on how to prepare this 3% solution.

LOADING DOSE: 2 mL/kg/hr (maximum of 200 mL/hr) of 3% N-Acetylcysteine X 4 hours

MAINTENANCE DOSE: 0.2 mL/kg/hr (maximum of 20 mL/hr) of 3% N-Acetylcysteine continuously until advised to STOP by the Poison Centre or meets the Stopping Criteria

SMART PUMP DOSING:

For those institutions whose SMART PUMPS are unable to be programmed in mL/kg/hr the doses above have been converted for your convenience:

LOADING DOSE: 60mg/kg/hr (maximum of 6000 mg/hr) of 3% N-Acetylcysteine X 4 hours

MAINTENANCE DOSE: 6 mg/kg/hr (maximum of 600 mg/hr) of 3% N-Acetylcysteine continuously until advised to STOP by the Poison Centre or meets the Stopping Criteria

Additional Notes:

This dosing gives 240 mg/kg N-Acetylcysteine over the first 4 hours and, at least, an additional 48 mg/kg N-Acetylcysteine in the next 8 hours before the first reassessment at 12 hours, similar to the 300 mg/kg N-Acetylcysteine total that a patient received with the old 21 hour protocol.

Do not order intravenous N-Acetylcysteine to run over a fixed duration (e.g. 21 hours) or a fixed dose (e.g. 100 mg/kg over 16 hours), but instead order as an open-ended hourly infusion, with reassessment at least q12 hours based on serial laboratory testing as recommended by the Poison Centre.

Calculate N-Acetylcysteine dose using total body weight up to a maximum of 100 kg.