glutathione replenishment, reduction of disulfides and increased H_2S and sulfane sulfur species inside cells*(84)*.

Adverse event profile

The most commonly reported adverse effects of intravenous acetylcysteine are anaphylactoid reactions, including rash, pruritus, angioedema, bronchospasm, tachycardia, and hypotension. Within a trial of loading doses in the treatment of paracetamol overdose, these have been seen to occur in approximately 15% (of total n=180), although discontinuation due to adverse reaction occurred in 2%*(85)*. Retrospective study has found adverse event rates of 5% (4/76 participants).

Route, dosage, and duration

This recommendation concerns N-acetylcysteine as an intravenous medication (200 mg/mL, in a 10 mL ampoule) *(47)*.

Different dosage and administration schedules have been adopted for various conditions. However, the panel endorsed the use according to established protocols for acute acetaminophen ingestion, as follows:

Table 5-12. N-acetylcysteine dosing

Body weight	Loading dose	Second dose	Third dose
5 kg to 20 kg	150 mg/kg in 3 ml/kg of diluent infused over 1 hour	50 mg/kg in 7 ml/kg of diluent infused over 4 hours	100 mg/kg in 14 ml/kg of diluent infused over 16 hours
21 to 40 kg	150 mg/kg in 100 ml of diluent infused over 1 hour	50 mg/kg in 250 ml of diluent infused over 4 hours	100 mg/kg in 500 ml of diluent infused over 16 hours
41 kg or greater	150 mg/kg in 200 ml of diluent1 infused over 1 hour	50 mg/kg in 500 ml of diluent infused over 4 hours	100 mg/kg in 1000 ml of diluent infused over 16 hours

Dilute N-acetylcysteine in one of the following three solutions: sterile water for injection, 0.45% w/v sodium chloride or 5% w/v dextrose.

For detailed weight-based dosage and dilution instructions, please refer to the summary of product information *(86)* and the indication for N-acetylcysteine in cases of non-acetaminophen-induced liver failure *(87)*.