Mushroom toxicity

Early onset
GI upset diarrhea and vomiting
Neurological - hallucinations
Muscurinic – SLUDGE syndrome

Late onset
Vomiting and diarrhea  after 6-12 hours
Hepatic and renal failure after 48 hours

Amanita – 95% of  fatalities
Mortality with aggressive treatment 10%
Mortality with delayed therapy >48hours 75%

Toxins not heat labile > not destroyed by cooking, drying or freezing
RNA and DNA synthesis inhibitor
Hypoglycaemia is a common cause of death
Single mushroom can kill 0.1mg/kg
Symptoms onset within 12 hours, onset <2 hours usually benign
Resolve for 1-2 days
Delayed hepatic necrosis, hepatic and renal failure, coagulopathy and encephalopathy

Investigations
Seek help – toxicologist, university & botanic garden mycologist
Check LFTs -AST, ALT, Billi, U+Es- CrCl, Urea, GFR, Coag

Management – General

Emesis if <4hours
Charcoal if within 36 hours – 0.5-1g / Kg
Aggressive fluid replacement
Forced diuresis
Supplemental glucose
Atropine for Muscurinic syndrome
Sedation for hallucinogenic, sedative
Treatment of coagulopathy
Treatment of encephalopathy – sedation with diazepam

Management – Specific

N-acetylcysteine
Silibinin 20-40mg/Kg/day
5mg/kg in 5% dextrose IV 6 hourly for 6 days, administered over 2 hours
Penicillin G  300,000 – 1,000,000 units per day > displaces toxin from binding

1. Four historical or examination findings that assist with differentiating non-toxic from toxic mushroom ingestion.

i) Onset < 2 hours of ingestion

ii) Specimen or photo provided to assist with identification by mycologist iii)

2. List three investigations you would perform and justification

i) LFTS and glucose – look for sign of hepatic failure , hypoglycaemia ALT AST Billi

ii) COAGS – look for coagulopathy INR APTT PT

iii) U+ES – look for renal failure elevated Cr Urea and reduced GFR

3. How long would you keep the child for observation ? = 48 hours check for hypoglycaemia and hepato-renal failure.

4. Three stages of amanita toxity

i) GI symtoms 12-24 hours after ingestion

ii) Latent/convalescent stage – patient feels better 12-24 hours

iii) Final stage 2-4 days post ingestion > fulminant liver failure, renal failure, encephalopathy, coagulopathy GI bleeding, hypoglycaemia