

# Acetaminophen Poisoning



## 1. Toxic Dose in Children:

For children <6 years old:

200 mg/kg or more of acetaminophen (APAP) as a single ingestion or over an 8-hour period, or  
150 mg/kg per 24-hour period for 2 consecutive days, or  
100 mg/kg per 24-hour period for more than 2 consecutive days

For children ≥6 years old:

>10 grams or 200 mg/kg as a single ingestion,  
>10 grams or 200 mg/kg over a 24-hour period, or  
>6 grams or 150 mg/kg per 24-hour period for at least 2 consecutive days.

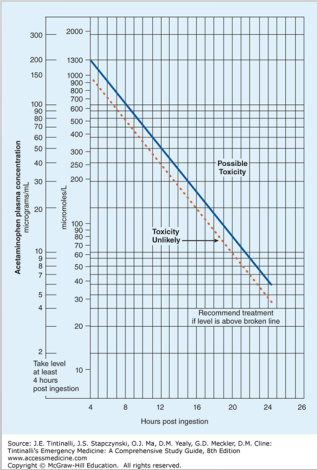
## 2. Rumack-Matthew Nomogram

Only applies to a *single oral exposure* + during a window between *4 to 24 hrs* post ingestion !

When do we need a repeated level?

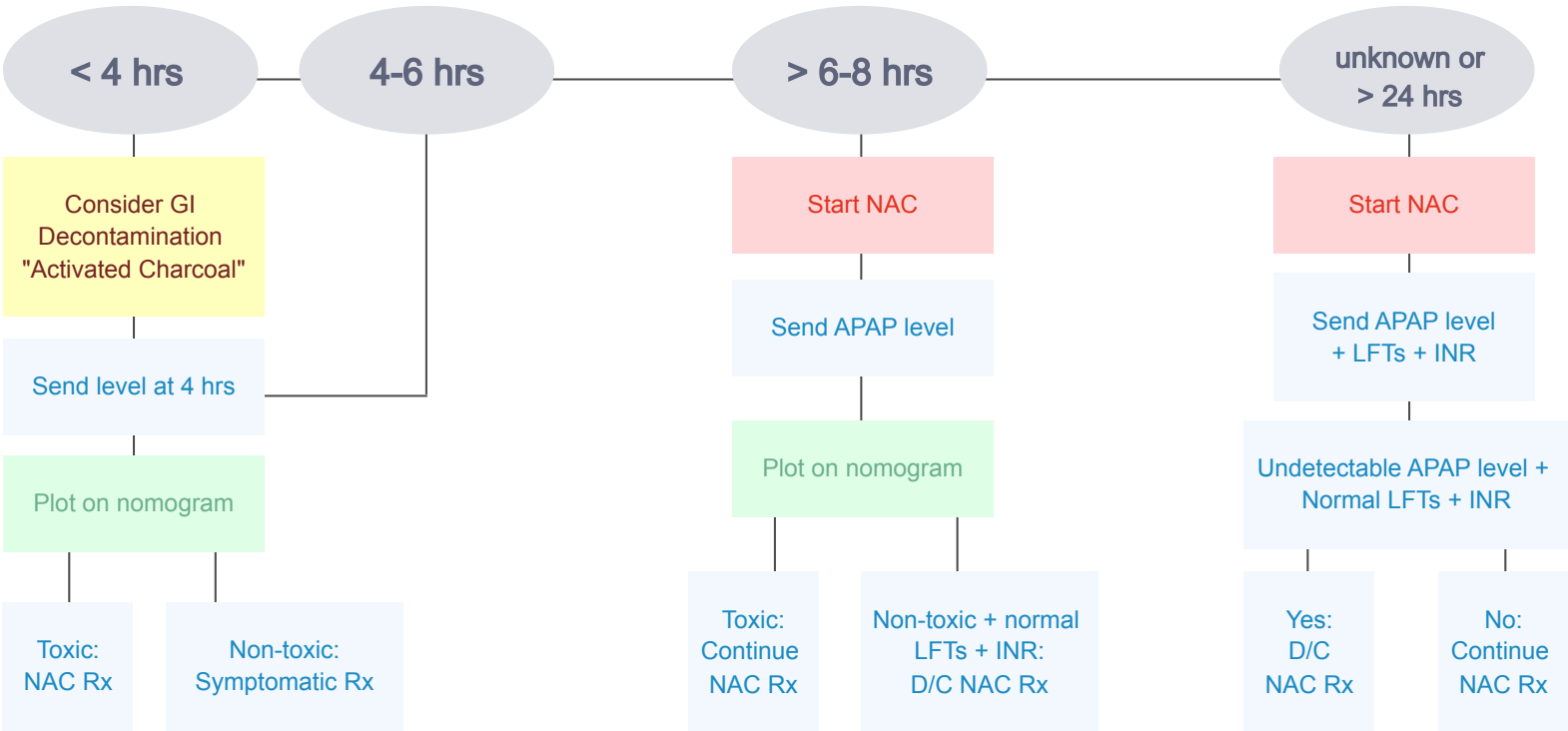
If the 1st level is below treatment line, a 2nd level must be drawn in cases of:

- extended release preparations
- coingestion with substances that may slow gastric motility (opioids, anticholinergics).



## 3. Approach & Management

Hx APAP Ingestion



## 4. N-Acetylcysteine (NAC)

NAC oral dosing:

140 mg/kg; followed by 17 doses of 70 mg/kg q4h

NAC IV dosing (21-hr NAC protocol):

150 mg/kg infused over 60 min;  
followed by a 4 hr infusion of 50 mg/kg;  
followed by a 16-hr infusion of 100 mg/kg

NAC Side Effects:

- Anaphylactoid reactions
- Nausea
- Vomiting

## 5. Disposition

*Admission :*  
All patients who require treatment with NAC.

*PICU :*

- AMS or encephalopathy
- Metabolic acidosis
- Coagulopathy
- Renal or Hepatic failure

*Refer to Liver Tx as per King's College Criteria :*  
PH < 7.3 , or PT > 100 secs + Cr > 3.3 mg/dl + Hepatic encephalopathy grade 3 or 4

*Observation 4-6 hrs :*  
If level is below the line with normal LFTs & INR