COCAINE

Cocaine
Primary effect: blocks reuptake of Noradrenaline
Secondary effect: marked release of Noradrenaline

Also causes release/reuptake of serotonin/dopamine
Blocks Na channel (local anaesthetic action)
Stimulates limbic system producing pleasurable effect

	Onset	Peak	Duration
Inhalation (smoke)	7 s	1-5 min	20 min
IV	15s	3-5 min	20-30 min
Nasal	3min	15 min	45-90 min
Oral	10 min	60 min	60 min

Management- General

- ABCs
- Oxygen
- Iv access
- Monitors
- Remove residual cocaine from nasal use
- Check BM. Hypoglycaemia may present as any neuropsychiatric syndrome. Consider beta HCG

Effects short lived. Monitor until no longer hypertensive or tachycardic (because of drug) & the patient is calm and cooperative
Patients with normal vital signs can usually be discharged after 2-6 hrs observation.

Theraputic dilemmas
ß blockers. Avoid non-selective beta-blockers. Unopposed alpha stimulation leads to vasoconstriction with reduced cardiac blood flow
Esmolol has been recommended
Labetolol has alpha + beta blockade, but less alpha. Increases seizure and mortality rate in animal models

Cocaine & the heart
Alpha effects coronary spasm
Beta effect increased BP & heart rate

VT

- Oxygenate
- Benzodiazepines intravenously
- Sodium bicarbonate
  Alteration in pH changes the Na channel conformation & overrides the Na channel blockade
- Antiarrythmic
  Consider Llignocaine as 2nd line
  ?MgSulphate

PSVT/Flutter/AF

- Usually short lived
- Increasing dose of benzodiazepine
- Verapamil as 2nd line (NB avoid if beta blocker given)
- Haemodynamically significant
  Avoid adenosine & if possible synchronised cardioversion because tachycardia likely to recur or be refractory

Chest Pain

6% incidence of MI in cocaine associated chest pain

- Oxygen
- ECG/CXR
- Aspirin 300mg
- GTN S/L & infusion
- Small increasing doses of benzo, morphine
- Phentolamine as 2nd line agent
- Possibly use esmolol if resistant to these

ECG-MI

- Typical patient is young, non white, male cigarette smoker without other risk factors who have a history of repeated cocaine use
- 24 times risk of MI in 1st hour after coke use
- Treat as per chest pain above with oxygen, benzos, nitrates, morphine
- 43 % with ECG criteria for thrombolysis will have negative cardiac markers for infarct
- If >40 yrs, not responding to above measures, risk factors present, discuss with PPCI centre at Golden Jubilee Hospital

Hypertension

Due to CNS stimulation & peripheral alpha agonist effects

- IV benzodiazepines
- IV nitrate infusion
- Avoid beta-blockers