

MANAGEMENT OF INJECTIONAL BOTULISM

Clinical presentation

Descending symmetrical paralysis, typically starting with diplopia, dysarthria and ptosis. There is an absence of fever, meningism, confusion, impaired conscious level and sensory signs. Rapid progression to respiratory failure can occur with autonomic dysfunction. Injectional botulism typically occurs following injection of contaminated heroin into muscle or skin, with an incubation period of around 7 days. **Botulism is a clinical diagnosis**, EMG studies can assist, microbiology results may be negative.

Microbiological diagnosis

Testing for botulism takes several days in a reference lab. Treatment should **not** be deferred pending results. Samples should be sent **urgently** to your local microbiology lab.

- Serum for botulinum toxin, **at least 5ml** in gold topped serum gel tube (must be taken before botulinum anti-toxin is given)
- Pus or debrided tissue for culture and PCR in a plain universal container. Do not send swabs of pus.

Antibiotic treatment – kills viable *C. botulinum*

- IV benzylpenicillin 2.4g 6 hourly and IV metronidazole 500mg 8 hourly
- IV Vancomycin (See GG&C vancomycin dose calculator) plus IV metronidazole 500mg 8 hourly, if allergic to penicillin
- Try to **avoid** gentamicin and clindamycin as this may increase neuromuscular blockade
- Seek advice from Infectious Disease or microbiology re duration.

Other antibiotics may be needed to treat co-existing soft tissue infection.

Botulinum Anti-toxin - binds free botulinum toxin.

IV Anti-toxin should be administered as soon as possible. For supplies contact GRI pharmacy or GRI pharmacist on-call.

Dose 250ml/30min then 250ml/hour this is a total of 500ml. It is an equine antitoxin and allergic reactions can occur-monitor closely. Repeat 250ml over 1hour after 4-6 hours.

Debridement - removes source of *C. botulinum*

Any injection sites should be urgently debrided to remove the source of further toxin production, even if there is no evidence of serious infection.

Critical care review

Respiratory failure can occur rapidly. ITU should be informed of any suspected cases.

Public Health notification

Botulism is a notifiable disease. Inform the on-call Public Health consultant

Infection Control

Patients with suspected *C. botulinum* require no special infection control measures.