

## Intrathecal Baclofen - Paediatric Summary Clinical Guideline

Reference no.: CH CLIN G83/June 18/v004

### **Baclofen Underdose**

Keep Baclofen under-dose or withdrawal in mind for any patient on Intrathecal Baclofen who develops unusual symptoms.

These could be due to a malfunction of the Baclofen system; while under-dose is milder and inconvenient; Baclofen withdrawal can be **serious**.

#### The symptoms of under-dose are:

- Increase in Spasticity
- Slight drowsiness.
- Hypotension
- Itchiness.

#### The symptoms of Baclofen withdrawal syndrome are:

- High fever
- Lethargy,
- Severely increased spasticity with rigidity.

Sometimes this leads to rhabdomyolysis with renal failure and in rare cases can lead to multiple organ system failure and death.

#### **If under-dose is likely, rapid diagnosis and correction of the cause is essential:**

Under-dose is diagnosed with definite symptoms and increase in tone without alternative diagnosis and normal CPK.

- Patient would need **urgent review** by senior paediatrician (Paediatric on-call consultant or CED consultant) to make the diagnosis and will also need **urgent discussion with the neurosurgical team at Nottingham**.
- Administer oral Baclofen  
Child 2 - 6 yrs - 20-30mg daily in divided doses  
Child 6 - 8 yrs - 30-40mg daily in divided doses  
Child 8 - 18yrs - 60mg daily in divided doses
- Contact the on-call neurosurgical team at Nottingham for advice on further management.
- Obtain blood samples for Plasma CPK, U&E and full blood count. Plasma CPK increase will suggest Baclofen withdrawal syndrome. Search for alternative condition such as infection.

Consider administering the following medication after speaking to the paediatric consultant on-call **and** the neurosurgical team (QMC or Sheffield):

- IV Diazepam (intermittent or continuous infusion)
- Dantrolene

### **Baclofen Overdose**

Consider Baclofen overdose in any unusual symptoms in a child whose pump has been refilled in the previous 48 hours. This is usually due to errors in programming the pump.

**If an overdose has been detected, arrange to admit patient to HDU, even if asymptomatic and discuss urgently with the neurosurgical team at Nottingham.**

#### **Symptoms of overdose;**

- Drowsiness
- Respiratory depression
- Seizures
- Loss of consciousness leading to coma.

#### **Management:**

There is no specific antidote for ITB. The half-life of the drug is around 4 hours and it will be eliminated from the body in 8 hours. Therefore, the management of overdose of ITB is largely cardiorespiratory support.

Check capillary/arterial gases and manage airway and breathing as appropriate with intubation and ventilation if necessary. Intravenous fluids to support circulation.

**Contact urgently the Neurosurgery team at QMC in Nottingham for advice on further management.**

Consider treating with Physostigmine **after discussion with the neurosurgical team.**

### **EMPTYING AND ADMINISTRATION OF INTRATHECAL BACLOFEN**

This procedure should only be carried out by persons who have completed refill training or are being supervised by a person who has completed refill training and there is a clinician available with a programmer.

**At present, we do not provide a service of emptying and refilling ITB pumps in Derby. This procedure should be carried out by the neurosurgical team in Nottingham or Sheffield, if the patient is known to the neurosurgical team in Sheffield.**