Clinical Guideline

**BELL’S PALSY IN CHILDREN – DIAGNOSIS AND MANAGEMENT**

**SETTING**
Trust-wide – primary and secondary care

**FOR STAFF**
General Practitioners and Acute Paediatric staff

**PATIENTS**
Children with unilateral facial weakness and suspected Bell’s Palsy

Bell’s Palsy is an acute idiopathic unilateral lower motor neuron facial (VIIth) nerve paralysis. It is important that a diagnosis of Bell’s Palsy has been made confidently. Other possible causes of facial weakness in children that need to be considered are infection, inflammation, malignancy, tumour, trauma, hypertension or a vascular event. The flowchart below helps to consider and exclude other causes.

**Flowchart:**
- **Any other neurological deficits?**
  - Sparing of the muscles which move the forehead?
    - Child under 2 years old?
      - **NO**
      - **YES**
    - **NO**
  - **YES**
- **Was the onset gradual?**
  - Child systemically unwell?
    - **NO**
    - **YES**
- **Any history of head/facial trauma?**
  - **YES**
  - **NO**
- **Any change in hearing, ear discharge, abnormality of the tympanic membrane (TM) or difficulty visualising entire TM?**
  - **YES**
  - **NO**
- **Any history of tick bite/walking in area with prevalence of Lyme’s Disease?**
  - Recurrent VIIth nerve palsy?
    - **YES**
    - **NO**
- **Are there blisters in the ear/on the face?**
  - **NO**
  - **YES**
- **SAME-DAY SENIOR ED REVIEW – NEUROIMAGING MAY BE REQUIRED. LIKELY TO REQUIRE DISCUSSION WITH ON-CALL NEUROLOGY CONSULTANT.**
- **SAME-DAY SENIOR ED REVIEW WITH NEUROIMAGING AND REFERRAL TO NEUROSURGERY/PLASTICS/MAXILLOFACIAL/ENT AS APPROPRIATE**
- **DISCUSS WITH ENT**
- **DISCUSS WITH MICROBIOLOGY/INFECTIOUS DISEASES. CONSIDER SEROLOGY FOR BORRELIA BURGDORFERI (IgM AND IgG)**
- **GIVE ACICLOVIR (PAGE 2 FOR DOSE, PAGE 4 FOR EVIDENCE BASE, AND...**
- **MANAGE AS BELL’S PALSY (SEE BELOW)**
**MANAGEMENT**

**Blood tests:** If ANY of the following present, patient requires full blood count (prior to treatment with steroids) to exclude the rare possibility of cranial nerve palsy as presentation of leukaemia: bilateral VIIth nerve palsy, other nerve palsy/neurological signs, headache, bruising, bleeding, fever, bone pain, pallor, lymphadenopathy, hepatosplenomegaly.

**Blood Pressure:** Check BP (hypertension may cause neuropathy) – if elevated, discuss with general paediatrician. If cannot measure in primary care, refer to hospital. Hypertension in Children guideline

**Eye Care:**
- Artificial tears during the day, every one to two hours
- Lubricating ophthalmic ointment at night
- Tape eyelids closed at night
- Refer any child unable to close their eye completely to Paediatric Opthalmology Primary Care Clinic at Bristol Eye Hospital
- Sunglasses can be worn for photophobia/general protection

**Steroids:** Prednisolone (see below for dose)

**Follow-up:**
- Refer all children under 10 years to ENT for follow-up (will undergo otoscopy to exclude other pathology, plus tympanometry and audiometry). Refer children 10 years and over to ENT if there is any concern about hearing.
- Arrange appropriate review (e.g. GP surgery) in 7 days, then as needed to monitor for corneal ulceration/progression or resolution of symptoms. Will need faxed referral to paediatric neurology if not resolved in 4 weeks, or progression after 3 weeks.

**Medication doses and duration**

**PREDNISOLONE**
- **Dose**: 1mg/kg/day (to maximum 60mg)
- **Treatment duration**: 10 days (if over 40mg/day required, give full dose for 5 days, then 'tail off' dose over remaining 5 days to avoid abrupt stop)

**ACICLOVIR**
- **Dose**
  - 1 month - 2 years: 100mg 5 times daily
  - 2 - 18 years: 200mg 5 times daily
- **Treatment duration**: Usually for 5 days (longer if new lesions appear during treatment or if healing incomplete); dose doubled if immunocompromised or if absorption impaired

**Prognosis for Bell's palsy**
Majority begin to get better within 3 weeks.
80-90% recover within 6 weeks to 3 months without noticeable facial asymmetry.
For some, symptoms may last longer. In a few cases, symptoms may never completely disappear.
In rare cases, the disorder may recur, either on the same or the opposite side of the face - this warrants neurology referral.
Evidence Base

Plain language summary: "Bell's palsy is a paralysis or weakness of muscles in the face, usually on one side, with no certain cause. Usually people recover, although some do not. Corticosteroid drugs are anti-inflammatory. Bell's palsy is caused by inflammation of the facial nerve. Reducing the inflammation should limit nerve damage. In this review of eight trials involving 1569 participants, corticosteroids significantly reduced the number of people left with weak faces after Bell's palsy and did not cause serious harm."

Plain language summary: "Bell's palsy is a disease of the facial nerve which causes one side of the face to be paralysed. Some studies have suggested that it is caused by infection with the cold sore (herpes simplex) virus. If this is correct, antiviral drugs against herpes simplex would be likely to help recovery. It has also been suggested that corticosteroids may help. The paralysis is usually temporary even when untreated, although without treatment about one person in five is left with permanent facial disfigurement or pain. This updated review provided high quality evidence that antivirals are no more effective than placebo (dummy) treatment in producing complete recovery. On the other hand moderate quality evidence showed that antivirals were less effective than corticosteroids and that combined antiviral-corticosteroid treatment were more effective than placebo. Taken together, these results suggest that corticosteroids might be effective but this requires confirmation from the Cochrane review of corticosteroids which is being updated. There was no evidence that antivirals produced significantly more or significantly fewer adverse events than dummy treatment. As this analysis shows that antivirals against the cold sore virus are not significantly effective, other causes for Bell's palsy than infection by the cold sore virus now need to be considered.

Plain Language Summary: Uncertainty about usefulness of antiviral drugs in Ramsay Hunt syndrome
It seems logical that antiviral drugs might help patients with a herpes virus infection of the ear producing facial weakness (a condition known as 'Ramsay Hunt syndrome'). These drugs often help similar viral infections elsewhere in the body. However, trials that might address this issue have not been done and there is therefore some uncertainty about their usefulness. Since patients can experience side effects when taking these drugs, the risks of these have to be balanced with the unknown prospect of benefit when considering whether to use them in Ramsay Hunt syndrome.

Plain Language Summary: “Patching the eye following a simple corneal abrasion caused by trauma or foreign body: The cornea is the transparent outer layer of the eye. Scratches or superficial damage to the cornea are common problems and are very painful. A common treatment option has been to place an occluding patch over the eye. This review of 11 randomised controlled studies found that the use of patches slows the healing on the first day after the injury and made no difference to pain levels.”
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REFERENCES
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RELATED DOCUMENTS
None

AUTHORISING BODY
Children's ED Governance

SAFETY
None

QUERIES
Children's Emergency Department