Ashford and St. Peter's Hospitals
NHS Foundation Trust

Facial Nerve Palsy Guideline

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Guideline History		
Date	**Comments**	**Approved By**
Nov 2008	Created	Paediatric Guideline Group
Feb 2012	Reviewed	Paediatric Guideline Group
Jan 2014	Reviewed	Paediatric Guideline Group
March 2018	Reviewed	Paediatric Guideline Group
Jan 2021	Reviewed by Dr Erin Dawson	Paediatric Guideline Group
August 2022	Updated to include FBC in investigations following updates from STPN Oncology ODN 16/6/22 – Dr Claire Mitchell	Paediatric Guideline Group

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Guideline for the Management of Acute Peripheral Facial nerve palsy

Bells Palsy – in Children 0-18 years old

Definition

- Bell palsy is an **acute, idiopathic unilateral lower motor neurone facial nerve palsy** that is not associated with other cranial neuropathies or brainstem dysfunction.
- Common disorder between the ages of 10-16 years
- Usually develops suddenly. The cause is usually unknown but may develop several weeks after a systemic viral infection
- Most children recover completely.
- Assessment of Bell's palsy is aimed at confirming the diagnosis and excluding the other important causes of facial weakness.

Causes

*Idiopathic – Bell Palsy
*Infective
- Herpes virus type 1
- Herpes zoster (Ramsay – Hunt syndrome)
- Lyme disease
- Otitis media or cholesteotoma

Trauma – e.g base of skull fracture
Neurological
- Guillian Barre
- Multiple sclerosis
- Mononeuropathy – e.g due to sarcoidosis

Neoplastic
- Posterior fossa tumours
- Parotid gland tumours
- Leukaemic infiltrate

Hypertension

(*These are the most common causes in children)

History –Red Flags suggestive of other causes of Facial Nerve Paralysis

History and examination should ensure that the facial nerve is the only cranial nerve involved and there are no other neurological symptoms
There are a few areas of the history which should be explored in particular ask about:

- Onset gradual over >2 weeks - Suggests mass lesion
- Forehead not involved - Suggests central nervous system cause (supranuclear lesion)
- Bilateral involvement - Suggests Polyneuropathy
- Recent travel history – particularly to areas where tics are known to be present consider Lyme Disease
- Fever - Consider infectious cause such as Otitis Media
- Rash - Vesicular rash (Herpes Zoster), Erythema Migrans (Lyme Disease)
- Ear pain – prominent feature of Herpes Zoster infection

Examination:

Need to complete a full neurological examination - cranial and peripheral nerves.

In addition ensure you examine the **ear canal and tympanic membrane, parotid gland, mouth and pharynx.**

Clinical signs:

It is important to differentiate between an upper and lower motor neurone lesion on clinical examination - in a lower motor neurone lesion the patient will be **unable** to wrinkle their forehead in addition to the other features listed below:

- The upper and lower portions of the face are paretic
- Weakness of the muscles of facial expression and eye closure
- Loss of facial creases and nasolabial fold
- The corner of the mouth droops
- Patients are unable to close the eye on the affected side, decreased tear production – which can cause damage to the conjunctiva and cornea
- In about 50% of cases taste on the anterior 2/3rds of the tongue is lost on the affected side
- Hyperacusis

Investigation:

- Check Blood pressure (2 cases of coarctation presenting with facial nerve palsy and hypertension)
- Serology – in selected cases lyme, herpes and zoster (paired samples 4-6 weeks apart). It may not influence management, but may reveal aetiology.
- FBC in all to exclude leukaemia. Although rare, 0.6% of facial nerve palsy are secondary to leukaemic infiltrates.

Managment/Treatment

Main aims are to speed recovery and to prevent corneal complications

Eye care – to protect the cornea from drying and abrasion

- If necessary an eye pad or goggles to protect the eye
- Frequent use of artificial tears during the day (e.g Hypromellose 0.3% eye drops)
- Eye ointment (e.g Lacri-Lube) to lubricate the eye overnight along with a protective eye patch overnight. Another option is to tape the upper and lower lid together when you are asleep.
- Consider referral to eye clinic for examination/advice

Corticosteroids

- The role in treatment of Bell's palsy in children is unclear, however streroids appear to benefit adults, particularly if given within 72 hours of onset and if complete palsy present.

- **Prednisolone (1mg/kg/day PO daily max 50mg) for 10 days may be considered for Bell's palsy presenting within 72 hours of onset - treat as early as possible**, recovery has been shown to be better with early treatment.

Antiviral agents

- There is little evidence for the use of antivirals in the absence of any vesicles
- **Always use acyclovir for Ramsay Hunt syndrome** (Consult BNF for Children for dosage)
- **Currently insufficient evidence to recommend its use routinely** – however it may be considered particularly in patients whose facial palsy is severe

Treat any associated/causative condition

Guidance for Parents

- No need for routine hospital follow up
- Reassurance – most cases resolve spontaneously
- Prognosis - 85% recover spontaneously with no residual facial weakness. 10% have mild facial weakness and 5% will be left with permanent facial weakness.
- Course - Maximal weakness at 3-7 days after onset, most cases improve within 3 weeks even without treatment, additional improvement may require up to 6 months. (No recovery within 3 weeks is associated with a worse prognosis)
- Complications - Corneal Ulceration, permanent eyelid weakness, permanent facial asymmetry

Supporting References

1. Holland NJ, Weiner GM: Recent developments in Bell's Palsy. BMJ Sept 2004 4;329 553-7
2. Sullivan FM, Swan IR, Donnan PT, et al; Early treatment with prednisolone or acyclovir in Bell's palsy. N Engl J Med. 2007 Oct 18;357(16):1598-607.
3. Salinas RA, Alvarez G, Ferreira J; Corticosteroids for Bell's palsy (idiopathic facial paralysis). Cochrane Database Syst Rev. 2004 Oct 18;(4):CD001942.

Bells Palsy: Parent/Patient Information

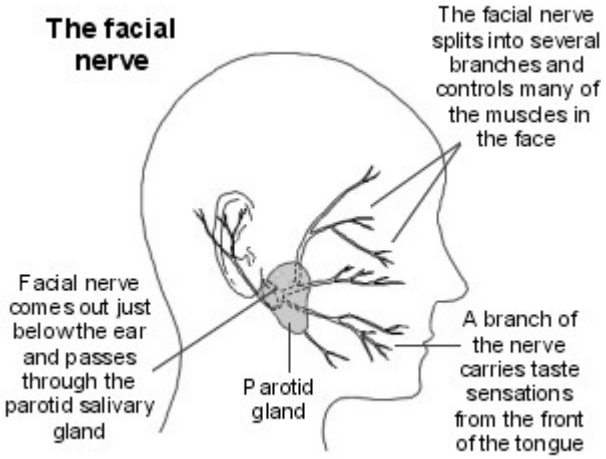
What is Bells palsy?

Bell's palsy is a weakness of the facial muscles. It is due to a problem with the facial nerve. The weakness develops suddenly, usually on one side of the face.

Symptoms of Bells palsy include: Drooping of the mouth and face, difficultly chewing, drooling, inability to close the eye causing a watery or dry eye, sensitive hearing and loss of taste sensation on the side of the tongue that is affected.

The facial nerve

Each facial nerve comes out from the brain, through a small tunnel in the skull just under the ear. The nerve splits into many branches which supply the small muscles of the face used to smile, frown, etc. It also supplies the muscles that you use to close your eyelids. Branches of the facial nerve also take taste sensations from your tongue to your brain.



What causes Bell's palsy?

It is thought that inflammation develops around the facial nerve as it passes through the skull from the brain. The inflammation may squash the nerve as it passes through the skull. The nerve then partly, or fully, stops working until the inflammation goes. If the nerve stops working, the muscles that the nerve supplies also stop working. The cause of this inflammation is not known, but it is probably due to a viral infection.

How does Bell's palsy progress?

In most children the function of the nerve gradually returns to normal. Symptoms usually start to improve within 2-3 weeks, and have usually resolved by two months. In some cases, it can take up to twelve months to fully recover. In a few children, symptoms do not completely go and some facial weakness may remain for good. However, it is often a slight weakness of part of the face and hardly noticeable.

What is the treatment for Bell's palsy?

Without treatment, full recovery is still likely and occurs in about 8 in 10 cases. A course of steroid tablets started within 72 hours of the onset may improve the chance of full recovery even further.

Steroid tablets (prednisolone) are usually prescribed for 10 days, these help to reduce inflammation.

As you cannot fully close your eyelid, the front of the eye may become damaged. The eye can also become dry as the tear gland may not work properly. If necessary the doctor will prescribe eye drops to lubricate the eye during the day and an eye ointment to use at night. It may also be necessary to cover the eye with a patch or tape the upper and lower lids together when you are asleep.

2. Guideline Governance

a. Scope

This guideline is relevant to all staff caring for all children from 0-18 years old across the emergency department, inpatient ward and outpatient department.

b. Purpose

i. This guidelines aims to facilitate a common approach to the management of children. At times deviation from the guideline may be necessary, this should be documented and is the responsibility of the attending consultant.

ii. This guideline is subject to regular review to ensure ongoing evidence based practice.

c. Duties and Responsibilities

All healthcare professionals responsible for the care of all children 0-18years should be aware of practice according to this guideline.

d. Approval and Ratification

This guideline will be approved and ratified by the Paediatric Guidelines Group.

e. Dissemination and Implementation

i. This guideline will be uploaded to the trust intranet 'Paediatric Guidelines' page and thus available for common use.
ii. This guideline will be shared as part of ongoing education within the Paediatric Department for both medical and nursing staff.
iii. All members of staff are invited to attend and give comments on the guideline as part of the ratification process.

f. Review and Revision Arrangements

a. This policy will be reviewed on a 3 yearly basis by the appropriate persons.
b. If new information comes to light prior to the review date, an earlier review will be prompted.
c. Amendments to the document shall be clearly marked on the document control sheet and the updated version uploaded to the intranet. Minor amendments will be ratified through the Paediatric Guidelines Group. A minor amendment would consist of no major change in process, and includes but is not limited to, amendments to documents within the appendices.

g. Equality Impact Assessment

Background • Who was involved in the Equality Impact Assessment
Author and the supervising consultants.
Methodology • A brief account of how the likely effects of the policy was assessed (to include race and ethnic origin, disability, gender, culture, religion or belief, sexual orientation, age) • The data sources and any other information used • The consultation that was carried out (who, why and how?)
All groups of staff and patients were taken into consideration and there is no bias towards or against any particular group.
Key Findings • Describe the results of the assessment • Identify if there is adverse or a potentially adverse impacts for any equalities groups
There is no evidence of discrimination.
Conclusion • Provide a summary of the overall conclusions
There is no evidence of discrimination.
Recommendations • State recommended changes to the proposed policy as a result of the impact assessment • Where it has not been possible to amend the policy, provide the detail of any actions that have been identified • Describe the plans for reviewing the assessment
This guideline is appropriate for use.

h. Document Checklist

To be completed (electronically) and attached to any document which guides practice when submitted to the appropriate committee for approval or ratification.

Title of the document: Facial Nerve Palsy Guideline

Policy (document) Author: Dr Clare Hill

Executive Director: N/A

		Yes/No/ Unsure/NA	Comments
1.	**Title**		
	Is the title clear and unambiguous?	**Y**	
	Is it clear whether the document is a guideline, policy, protocol or standard?	**Y**	
2.	**Scope/Purpose**		
	Is the target population clear and unambiguous?	**Y**	
	Is the purpose of the document clear?	**Y**	
	Are the intended outcomes described?	**Y**	
	Are the statements clear and unambiguous?	**Y**	
3.	**Development Process**		
	Is there evidence of engagement with stakeholders and users?	**Y**	
	Who was engaged in a review of the document (list committees/ individuals)?		**Paediatric Guidelines Group**
	Has the policy template been followed (i.e. is the format correct)?	**Y**	
4.	**Evidence Base**		
	Is the type of evidence to support the document identified explicitly?	**Y**	

		Yes/No/ Unsure/NA	Comments
	Are local/organisational supporting documents referenced?	**Y**	
5.	**Approval**		
	Does the document identify which committee/group will approve/ratify it?	**Y**	
	If appropriate, have the joint human resources/staff side committee (or equivalent) approved the document?	**N/A**	
6.	**Dissemination and Implementation**		
	Is there an outline/plan to identify how this will be done?	**Y**	
	Does the plan include the necessary training/support to ensure compliance?	**Y**	
7.	**Process for Monitoring Compliance**		
	Are there measurable standards or KPIs to support monitoring compliance of the document?	**N/A**	
8.	**Review Date**		
	Is the review date identified and is this acceptable?	**Y**	
9.	**Overall Responsibility for the Document**		
	Is it clear who will be responsible for coordinating the dissemination, implementation and review of the documentation?	**Y**	
10.	**Equality Impact Assessment (EIA)**		
	Has a suitable EIA been completed?	Y	

Committee Approval (Paediatric Guidelines Group)			
If the committee is happy to approve this document, please complete the section below, date it and return it to the Policy (document) Owner			
Name of Chair	**Dr Claire Mitchell**	**Date**	**15/08/2022**
Ratification by Management Executive (if appropriate)			
If the Management Executive is happy to ratify this document, please complete the date of ratification below and advise the Policy (document) Owner			
Date: n/a			