The Use of Neck Supports

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Neck weakness in MND

• Neck weakness common symptom of MND
• Weakness of neck extensors resulting in classic head droop
• Often associated with other weakness e.g. long back extensors, shoulder girdles
• May include spasticity, particularly difficult to manage
• Onset may be gradual or develop quickly
Signs and Symptoms

• Head feels heavy, especially when tired
• Neck strain
• Increasing difficulty lifting the head
• Head droops/pulls to one side
• Progression to severe weakness/instability
• Loss of normal range of movement
• Adaptive shortening/lengthening of cervical structures
Impact on Patient

- Discomfort
- Embarrassment
- Eating/Swallowing
- Respiration
- Social interaction/communication
- ADL – walking, driving, hoisting
- Risk of injury
How Heavy is Your Head?

12 lbs.  
32 lbs.  
42 lbs.

NORMAL POSTURE  
2 INCHES FORWARD  
3 INCHES FORWARD
• In upright postures normal head control largely dependent on postural (muscle) activity.

• Weight of the head approx 4.5-5kg (10-12lbs)

• But functional weight can be much more!

• Postural alignment ensures most efficient maintenance of head control/posture
Management of neck weakness

• Promote best possible postural alignment

• Maximise best possible postural control

• Introduction of supportive measures, including collars
Postural Alignment

• Early consideration of seating/wheelchair
• Suitable seating
• Good support
• High backed chair
• Head support possible?
• Rolled towel behind neck
• Travel pillows/small cushions
• Folded towel over back rest
Postural Alignment (cont)

- Riser recliner chairs
- Specialist seating
- Attendant wheelchair, back extension/recline facility?
- Tilt in space, rather than recline
- Neuro Chair
- Cushions and backrests
- Variety of headrests, forehead bands
Postural control

• Active
• Maximise available postural control
• Specific exercises where appropriate
• Give increasing support when and where needed, to maximise comfort and function
• May not need support all the time
• Consider fatigue
Introduction of collars

- Typically intermittent use
- Use when tired or when head control more challenging
- May have more than one collar, offering different amounts of support/comfort for different circumstances
- Early introduction particularly important with any lateral asymmetry (UMN)
- Reassess as patient’s needs change
A selection of collars I have tried
(other collars are available!!)

• Hereford cervical beany collar
• Foam cervical collars
• PDC collar
• Headmaster collar
• Oxford MND collar
• Philadelphia collar
• Aspen/Aspen Vista collar
• Matchett chin support
• Head supports (miscellaneous)
Cervical Beany Collar

- Lightweight, but surprisingly good support
- 4 lengths, but only one depth
- Easy to apply/remove
Foam cervical collars

• Very occasionally use
• Don’t mould as well as beany collars
PDC Collar (Thuasne Thamert)

- Well tolerated
- Medium support, but still good comfort
- Different height and sizes
Headmaster Collar

- Medium support
- Lightweight collar
- 4 sizes/ different collars
- Widely used in MND
- Mouldable with care
- Watch for chaffing over prominent clavicles
Oxford MND Collar

- Usually only tolerated for short term use
- Allows some head movement, can be good for reading/eating
- 3 strengths of spring, therefore different levels of support
- Patients complain of chin pressure and discomfort of chest section
Aspen Vista

• One size
• Good support, and better pressure distribution
• Greater head stability including lateral support
• Adjustable chin height
• Access for tracheostomy
Aspen

- Good support and pressure relief
- Wide range of heights and widths, allows more customised fit and comfort
- Less bulky than Aspen Vista
- Access for tracheostomy
Philadelphia

- Good overall support
- I haven’t had a patient who liked them (yet)
- Variety of sizes
Hensinger Collar

- Less specific support
- Can be useful, particularly in conjunction with some tilt in space
Matchett chin support
Alternative neck supports
TWIST PILLOW
BEND TO ANY SHAPE
SLEEP IN COMFORT ANYWHERE
AEROPLANE | CAR | COACH | BUS
Sheffield support snood

The award-winning ‘Head-Up’ project is funded by the National Institute for Health Research (NIHR) Invention for Innovation (i4i) Programme. It is a collaboration between Sheffield Teaching Hospitals NHS Foundation Trust, the University of Sheffield and Sheffield Hallam University. The team was brought together and provided with early funding by the NIHR Devices for Dignity Healthcare Technology Co-operative (D4D HTC).
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Summary re which collar

- Comfort!!!
- Body image
- Ease of putting on/off
- Impact on respiration
- Hypersalivation
- Function eg eating, writing
- Tracheostomy access
- Oral suction

😊 Develop a close working relationship with your orthotic department
Key message

• A collar alone will not resolve issue of neck weakness

• Suitable head support, via appropriate seating, is a critical part of management of neck weakness
• Any questions?

• Selection of collars available for you to look at over lunch time/breaks