Swallowing and Nutrition in HD

Erin Probert
Advanced Specialist SLT

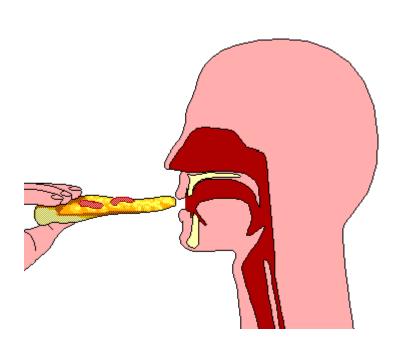
Lydia Fletcher Senior Dietitian



Swallowing



Normal swallow - recap



- Complex process involving many pairs of muscles and nerves.
- Involves chewing and controlling bolus in mouth (voluntary control) and swallowing it (reflex).



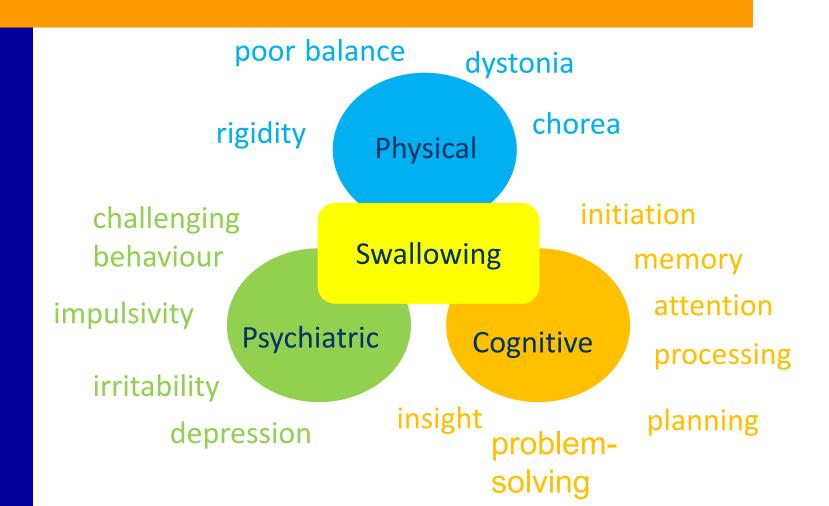
Risks

- Chest infections/pneumonia
- Choking
- Poor nutrition and hydration
- Reduced quality of life social and emotional impact.





Triad of Impairments



Swallow features (Hamilton at al., 2012)

- Hyperextension of neck and trunk
- Reduced chewing function and tongue control
- Darting lingual chorea (tongue thrust)
- Anterior loss/drooling
- Premature spillage (losing bolus over back of tongue before swallow)
- Oral residue
- Delayed and repetitive swallow
- Prolonged laryngeal elevation
- Reduced/disrupted breath control during swallow
- Phonation (voicing) during swallow
- Belching & swallowing air
 N.B. consensus is that cough reflex is often well preserved in HD. But not always!



Registered charity no. 205907

Other factors to consider

- Impulsivity rate, size of mouthfuls etc.
- Initiation may be reduced.
- Attention distractible
- Choreic movement orally but also limbs/trunk.
 Base of support.
- **Behaviour** e.g. levels of agitation.
- Medication e.g. sedative meds, tone meds, meds for choreic movement.

 Royal Hospital for Neuro-disability

SLT assessment

- Case history including chest infection hx, communication, cognition, behaviour.
- Check if advanced decision in place re: PEG/risk feeding or LPA for Health.
- Assessment at mealtime is usually very useful, observe ward staff assisting/feeding patient.
- Work with MDT
- Consider instrumental assessment
- Education is key role



Just to say...

 Eating and drinking in HD won't always look pretty!

 Key aim is to promote independence for as long as possible whilst managing risks.



Management

- MDT working is key
- Patient needs will change over time
- Need to be creative/flexible





Food/fluid modification

- Thickened fluids
- Texture modified foods







Swallow strategies

- ? patient ability to use strategies (given physical and cognitive impairments) e.g. effortful swallow.
- Bolus size
- Placement of bolus
- Pacing
- Individualised



Positioning and Set Up

- Positioning and posture ? chin tuck.
- Feeding equipment maroon spoons, control flow beaker, pat saunders straws etc.
- Environment e.g. side of dining room, in own room. Consider distractions.
- Medication



Level of Help

- Method and level of assistance needs may vary over course of meal/drink due to fatigue.
- Type of prompting verbal/gestural/physical.
- Amount/frequency e.g. 'little & often', ? increase intake via PEG if present





Saliva management

- Likely to experiences difficulties with this over time
- Positioning
- Medications
- Botox to salivary glands



Mealmats

Mealmat: Joe Bloggs

Fork mashable diet

Syrup fluids

Positioning and set up

- Upright in chair.
- Meal on tray with plate guard.
- Built up spoon & spouted beaker.
- Sit down next to Joe.

Level of help

- Full set up.
- Prompt Joe to grip spoon
- When tired, help with hand-over-hand assistance.
- Constant supervision.



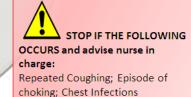
Communication

- Tell Joe what his meal is.
- Offer him choices e.g. gravy, drink, sauces.

Swallowing strategies

Date: 17.02.15

- Prompt Joe to clear mouth before taking next mouthful.
- Encourage two swallows per mouthful.
- Check mouth is empty at the end of meal.



Nutrition





A national medical charity Registered charity no. 205907

Weight Loss

- High risk of rapid weight loss through all stages
- Cause is multifactorial
 - Increased energy expenditure
 - Decreased oral intake
 - increased metabolic rate/altered metabolism
- Can impact on function and medical stability



Reduced Intake

- Reduced ability to prepare meals
- Reduced ability to self feed
- Dysphagia
- Vomiting/reflux
- Depression/anxiety
- Medication side effects

- Communication
- Cognitive decline
- Behaviours that challenge
- Dental issues
- Sleeping pattern
- Constipation



A national medical charity Registered charity no. 205907

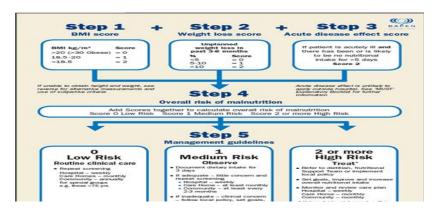
'Protective Weight Management'

- Recommendations from EHDN specialist group
- Maintain a BMI of: 23-25kg/m²
- weight loss intervention not started until BMI 27-30kg/m² with comorbidities, or above 30kg/m² without comorbidities
- Using target weight ranges
- To be discussed with MDT



Identification of Malnutrition

 Use validated screening tools e.g. Malnutrition Universal Screening Tool (MUST)



Diet history regardless of screening outcome



Nutritional Recommendations

European Huntington's Disease Network Standards of Care recommendations.

- 25-35Kcal/Kg/day
- 0.8-1.5g protein/kg/day
- Fat, carbohydrate and fibre as general population.
- Micronutrients as general population.
- Factor in clinical presentation



Nutritional Management

- Involve patient and carers/family members
- High energy/high protein diet
- Regular meal pattern & snacks
- Early threshold for food fortification & nutrition support
- Oral nutritional supplements
- Facilitating eating and drinking
- Individualised Nutrition Care Plan



Monitoring

- Essential as behaviour/mood/physical abilities can change rapidly
- Weight checks on fortnightly/monthly basis
- Food and fluid records
- Mealtime clinics
- MDT approach



Oral nutrition support































Royal Hospital for Neuro-disability

A national medical charity Registered charity no. 205907

Obesity

- Can be challenging to manage
- Decreased mobility
- Obsessive behaviours
- MDT intervention & consistent approach
- Capacity assessment, education, contracts
- Regular monitoring is vital due to high risk for rapid weight loss

Royal Hospital for Neuro-disability

Enteral Feeding-Challenges

- Pump vs. bolus feeding
- Positioning
- Feed tolerance reflux, vomiting, gastric emptying, chorea of the gut
- Pulling at tube –abdominal binder



Summary

- Nutritionally high risk group
- Optimal nutritional screening
- Be aware of protective weight management
- MDT approach to maximising nutrition status
- Liaise with your local dietitian



Future Feeding Planning



Future Feeding Planning

Why is it important?

- To avoid decision made at 'crisis point'
- To give the patient the opportunity to make the decision themselves (or at least contribute!)
- To allow adequate time for education of patient and family/NOK and for them to consider options fully.



Pros and Cons

Risk acknowledged eating and drinking

versus

Feeding Tube



Steps in RHN pathway

- 1. Liaison with doctor, MDT and NOK. Checking for legal documentation.
- 2. Communication and cognitive assessments
- Education sessions and mental capacity assessment.
- 4. Final decision.
- 5. Formal documentation.



Mental Capacity Act (Northern Ireland) 2016

- Capacity is the ability to make a decision. It is issue-specific.
- Key principles of the MCA:
 - A person must be assumed to have capacity unless proven otherwise.
 - A person should be given all possible help/support to make their own decision.
 - A person has the right to make an unwise decision.
 - If a person lacks capacity, decisions made on their behalf must be in their best interests.
 - Decisions made in best interests must be 'least restrictive' option.

MCA continued...

A person has capacity if they can:

- ✓ Understand the information relevant to the decision
- ✓ Retain that information
- ✓ Weigh up that information
- ✓ Communicate their decision (through any means)

If they cannot do one or more of these then they do not have the capacity to make the decision.

Royal Hospital for Neuro-disability

Assessing capacity – what we do

- 2 Healthcare Professionals usually SLT with Dietitian or Psychologist
- Usually at least 3 sessions
- Provide education information
- Use visual materials
- Talking mats
- Structured yes/no questions





TM – Feeding Tube



TM – No Feeding Tube



What next...

If patient has capacity:

- Patient makes decision
- Clear documentation

If patient lacks capacity:

- Best Interests Decision
- Clear documentation



Case example – MDT working

References/Reading List

- Department of Health (2005). *The National Service Framework for Long Term Conditions.* Leeds: Department of Health, pp.4.
- Hamilton, A., Heemskerk, A. W., Loucas, M., Twiston-Davies, R., Matheson, K. Y., Simpson, S. A.,
 & Rae, D. (2012). Oral feeding in Huntington's disease: a guideline document for speech and
 language therapists. Neurodegenerative Disease Management, 2(1), 45-53.
- Heemskerk, A. W., & Roos, R. A. (2011). Dysphagia in Huntington's disease: a review. *Dysphagia*, 26(1), 62-66.
- Kagel, M. C., & Leopold, N. A. (1992). Dysphagia in Huntington's disease: A 16-year retrospective. *Dysphagia*, 7(2), 106-114.
- Royal College of Physicians and British Society of Gastroenterology. Oral feeding difficulties and dilemmas: A guide to practical care, particularly towards the end of life. London: Royal College of Physicians, 2010.
- Yorkston, K. M., Miller, R. M., & Strand, E. A., Britton, D. (2012). Management of Speech and Swallowing in Degenerative Diseases. 3rd edn (Austin, TX: PRO-ED).

Royal Hospital for Neuro-disability

References/Reading List

- Brotherton, A., Campos L., Rowell A., Zoia, v., Simpson, S. A., & Rae, D. (2012). Nutritional Management of individuals with Huntington's disease: nutritional guidelines.
 Neurodegenerative Disease Management, 2(1), 33-43.
- Nabmron R, Silajdzic E, Kalliolia E, Ottolenghi C, Hindmarsh P, Hill N R, et al. A metabolic study of Huntington's Disease. PLOS One 2016 11(1)
- Pratley RE, Salbe AD, Ravussin E. Caviness JN. Higher sedentary energy expenditure in patients with Huntington's Disease. *Nutrition* 2004:20:192-196
- Gaba AM, Zhang K, Marder K et al. Energy balance in early-stage Huntington's disease. American Journal of Clinical Nutrition 2005;81:1335-1341
- Grafton ST et al. (1992) Serial changes of cerebral glucose metabolism and caudate size in person at risk for Huntington's Disease *Arch Neurol.* 1992 Nov; 49 (11):1161-7
- Van de Burg et al. (2011) Gastrointestinal dysfunction contributes to weight loss in Huntington's Disease mice *Neurobiology of Disease 44*; 1-8
- Mental Capacity Act (Northern Ireland) 2016: http://www.legislation.gov.uk/nia/2016/18/contents

