SPEECH AND LANGUAGE THERAPY DEPT. ST JAMES HOSPITAL

PREVENTION OF ASPIRATION PNEUMONIA IN STROKE

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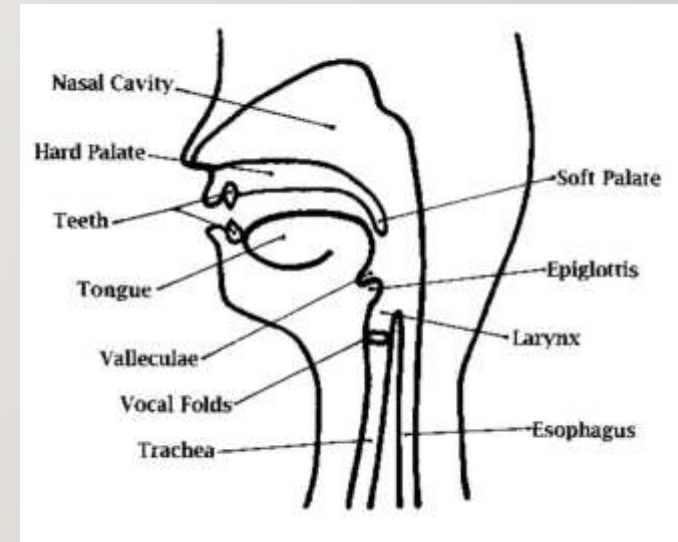
WHAT IS ASPIRATION PNEUMONIA

- The infectious pulmonary process that occurs after abnormal entry of fluids into the lower respiratory tract is termed aspiration pneumonia
- It can be oro-pharyngeal secretions
- Ingested food or drink
- Gastric contents



(Raghavendra et al., 2020)

MAIN CAUSES OF ASPIRATION PNEUMONIA POST STROKE

- Oro-pharyngeal dysphagia caused by damage to areas in the brain involved in controlling muscles and cranial nerves involved in swallowing

- Incidence of dysphagia post stroke is 50%(Flowers et al, 2018)

- Associated with prolonged hospital stay, disability, and death (Schepp et al. 2012)

- Consider other co-morbidities such as progressive neurological disorders, head and neck cancer

ORO-PHARYNGEAL DYSPHAGIA POST STROKE

- Reduced oro-pharyngeal sensation
- Reduced muscles movement and / or contraction caused by weakness or apraxia
- Weakened cough reflex
- Delayed swallow reflex trigger

WHAT HAPPENS WHEN SOMEONE PRESENTS TO HOSPITAL WITH A STROKE

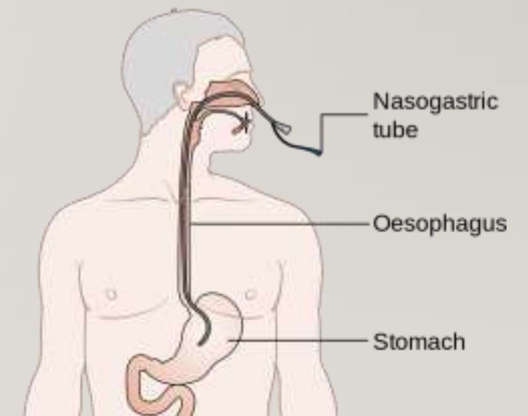
- TOR BSST (Torronto Bedside Swallow Screening Test). Patients at risk or identifying with difficulties eating and drinking who are FAST +ive are screened by a trained healthcare professional within 4 hrs of presenting to hospital– CNS, Reg, HASU nurses
- National guidelines
- Pass / Fail aspiration screen
- Can identify aspiration and the need for further clinical swallow evaluation
- Does not identify silent aspiration
- Allows early identification those patients who do not need a formal evaluation and who can safely take food and medications by mouth (where previously these patients would have been kept NBM until Monday)
- Important for patients with time sensitive medications or with blood sugar level sensitivities

WHAT HAPPENS NEXT ..

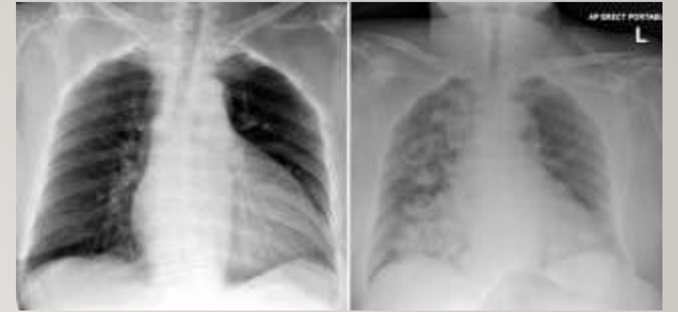
- Pass – safely commence oral intake
- Fail – aspiration risk identified patient made NBM and referred to SLT for further swallow ax
- If any concerns around swallow or communication post stroke, regardless of TOR BSST outcome, **please refer to SLT** for further input

NBM – NIL BY MOUTH

- No food or drink to be given orally to reduce the risk of aspiration if dysphagia is suspected or if the patient is not alert enough for oral intake
- Alternative feeding should be considered, particularly if over a weekend to reduce the amount of time a person is without nutrition and hydration
- Alternative feeding options as discussed by Clinical Nutrition
- Oral care should be prioritized



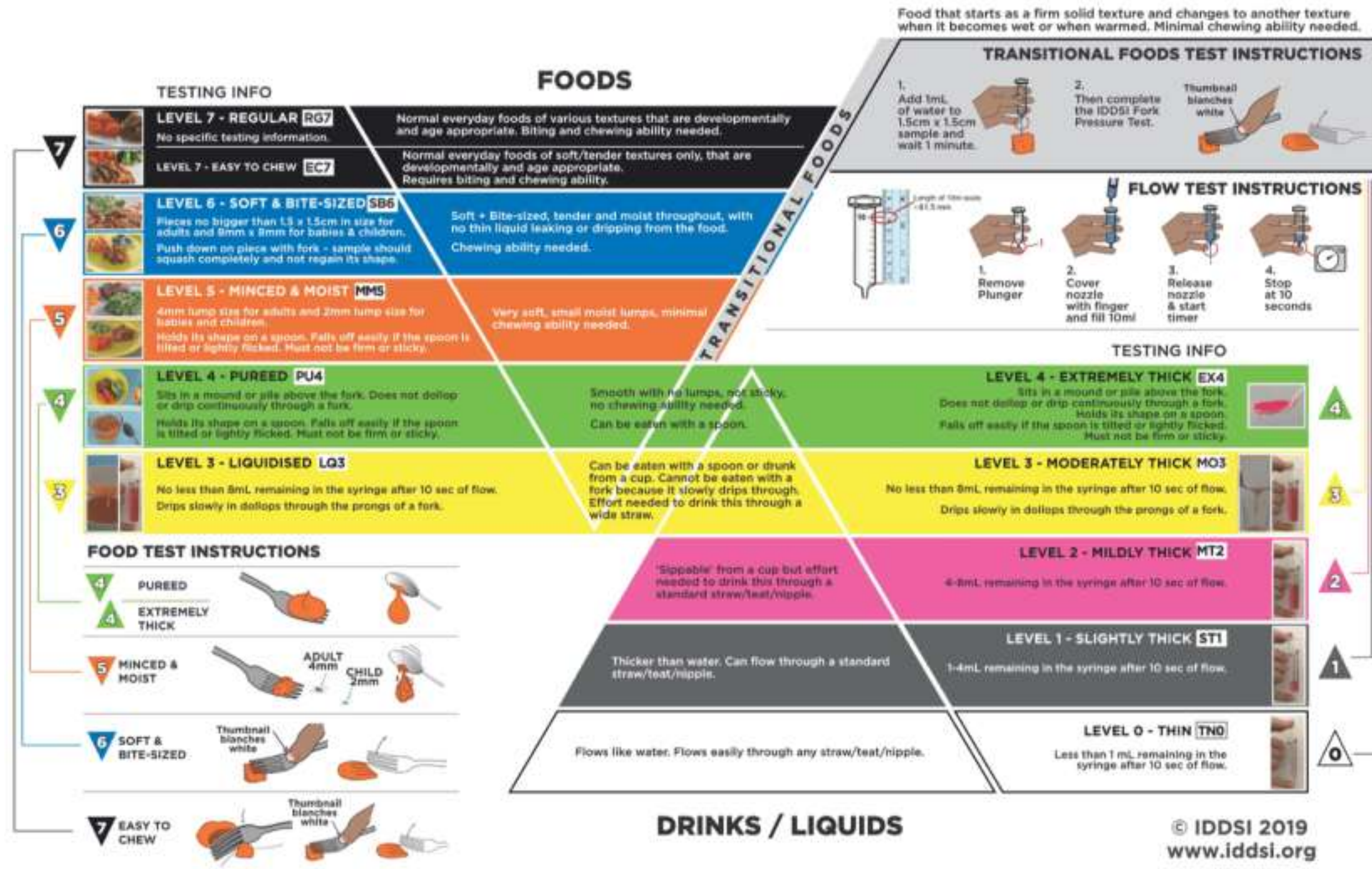
SLT ROLE IN PREVENTION OF ASPIRATIONPNEUMONIA



- Modification of diet and fluids based on bedside assessment
- Monitoring and regular review of recommendations or NPO status
- Objective swallow assessment – VFU & FEES
- Swallow rehab
- Strategies and environmental precautions and educating caregivers
- Chest monitoring – CXR, CRP, physio & medical team notes
- Ensuring regular oral cares and oral hygiene is adequate
- Liaison with MDT – medical team, nursing, clinical nutrition, physio & OT

SLT BEDSIDE SWALLOW ASSESSMENT

- Assess oro-motor function
- Communication status – screening and assessment
- Oral trials
- IDDSI food and drink levels
- Identify most suitable food and drink recommendations that reduce risk of penetration and /or aspiration
- Identify the necessary environmental strategies and level of assistance required to reduce risk of penetration and /or aspiration


IDDSI
FOOD & DRINKS CLASSIFICATION AND TESTING
ADULT & PEDIATRIC
FOODS
TESTING INFO
LEVEL 7 - REGULAR RG7
No specific testing information.
LEVEL 7 - EASY TO CHEW EC7
Normal everyday foods of various textures that are developmentally and age appropriate. Biting and chewing ability needed.
Normal everyday foods of soft/tender textures only, that are developmentally and age appropriate. Requires biting and chewing ability.
LEVEL 6 - SOFT & BITE-SIZED SB6
Pieces no bigger than 1.5 x 1.5cm in size for adults and 8mm x 8mm for babies & children.
Push down on piece with fork - sample should squash completely and not regain its shape.
Soft + Bite-sized, tender and moist throughout, with no thin liquid leaking or dripping from the food.
Chewing ability needed.
LEVEL 5 - MINCED & MOIST MM5
4mm lump size for adults and 2mm lump size for babies and children.
Holds its shape on a spoon. Falls off easily if the spoon is tilted or lightly flicked. Must not be firm or sticky.
Very soft, small moist lumps, minimal chewing ability needed.
LEVEL 4 - PUREED PU4
Sits in a mound or pile above the fork. Does not dollop or drip continuously through a fork.
Holds its shape on a spoon. Falls off easily if the spoon is tilted or lightly flicked. Must not be firm or sticky.
Smooth with no lumps, not sticky, no chewing ability needed.
Can be eaten with a spoon.
LEVEL 3 - LIQUIDISED LQ3
No less than 8mL remaining in the syringe after 10 sec of flow.
Drips slowly in dollops through the prongs of a fork.
Can be eaten with a spoon or drunk from a cup. Cannot be eaten with a fork because it slowly drips through. Effort needed to drink this through a wide straw.
TRANSITIONAL FOODS
Food that starts as a firm solid texture and changes to another texture when it becomes wet or when warmed. Minimal chewing ability needed.
TRANSITIONAL FOODS TEST INSTRUCTIONS
1. Add 1mL of water to 1.5cm x 1.5cm sample and wait 1 minute.
2. Then complete the IDDSI Fork Pressure Test.
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FLOW TEST INSTRUCTIONS
1. Remove Plunger
2. Cover nozzle with finger and fill 10ml
3. Release nozzle & start timer
4. Stop at 10 seconds
TESTING INFO
LEVEL 4 - EXTREMELY THICK EX4
Sits in a mound or pile above the fork. Does not dollop or drip continuously through a fork. Holds its shape on a spoon. Falls off easily if the spoon is tilted or lightly flicked. Must not be firm or sticky.
LEVEL 3 - MODERATELY THICK MO3
No less than 8mL remaining in the syringe after 10 sec of flow.
Drips slowly in dollops through the prongs of a fork.
LEVEL 2 - MILDLY THICK MT2
4-8mL remaining in the syringe after 10 sec of flow.
'Sippable' from a cup but effort needed to drink this through a standard straw/teat/nipple.
LEVEL 1 - SLIGHTLY THICK ST1
1-4mL remaining in the syringe after 10 sec of flow.
Thicker than water. Can flow through a standard straw/teat/nipple.
LEVEL 0 - THIN TN0
Less than 1 mL remaining in the syringe after 10 sec of flow.
Flows like water. Flows easily through any straw/teat/nipple.
DRINKS / LIQUIDS
FOOD TEST INSTRUCTIONS
PUREED
EXTREMELY THICK
MINCED & MOIST
ADULT 4mm
CHILD 2mm
SOFT & BITE-SIZED
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EASY TO CHEW
Thumbnail blanches white
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