Australian Government

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Speech Pathology Australia

The University Of Queensland
AUSTRALIA

Simulation-based Learning Program

Student workbook: Day 3

Developed as part of the *Embedding Simulation in Clinical Training in Speech Pathology* project 2014 – 2018

The University of Melbourne

The University of Sydney

La Trobe University

Griffith University
Queensland, Australia

The University of Newcastle
Australia

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Contents

Day 3 timetable - overview

Day 3	
8:30am	Overview of Day 3 and general preparation time
9:00am	**Simulation 5:** Mrs Margaret Henderson (swallowing assessment)
11:45pm	LUNCH
12:30pm	**Simulation 6:** Mrs Margaret Henderson (communication assessment)
3:00pm	Afternoon tea
3:15pm	Progress note writing
3:45pm	Preparation for Day 4
4:30pm	Close of Day 3

SIMULATION FIVE – Mrs Margaret (Margie) Henderson

Mrs Margaret Henderson is a 66 year old woman who suffered a left middle cerebral artery (MCA) stroke two days ago.

SIMULATION DETAILS:

In this simulation you will attend Margie's bedside for an initial review during which you will conduct a clinical swallowing examination.

You will be required to:

1. Assess Margie's swallowing function to see if she is safe to commence eating and drinking (this will include conducting an oromotor/cranial nerve assessment).
2. Determine appropriate food and fluid consistencies and strategies for Margie based on your assessment.
3. Communicate the results of the assessment to Margie and Anna, the nurse looking after Margie.

The total session will run for **1 hr and 20 mins**. Each student will have an opportunity to complete a section of the assessment (your clinical educator will ask you to approach the bedside when it is time for you to complete your section of the assessment). When you are not running the session you will be observing your peers.

The simulation will consist of three parts. All parts will be led by your clinical educator:

1. Prebrief– refer to pre simulation activities below.
2. Simulation – this will follow a pause-discuss method to support your learning.
3. Debrief.

INTENDED LEARNING OUTCOMES:

After participation in this clinical simulation, you will be able to:

1. Effectively conduct an appropriate clinical swallowing examination including oromotor/cranial nerve assessment and assessment of swallowing function, and to determine safety for oral intake.
2. Effectively communicate and provide information to Margie and nursing staff regarding Margie's current swallowing status and safety requirements for oral intake.

SETTING:

NSHS Acute Stroke Unit, Ward 2C
Patient bedside

RESOURCES PROVIDED:

1. NSHS Clinical Swallowing Examination form (located at the back of this booklet).
2. Assessment resources (including food and fluids for oral trials).

Pre simulation activities

You will be attending the bedside to conduct a *clinical swallow examination* for Margie. Complete the following tasks in preparation for your session.

1. Read the patient's medical records and gather relevant information.

Name:	Gender:
Age:	Occupation:
Reason for admission:	
Investigations (Ix):	
Diagnosis:	
Past Medical History (PMHx):	
Medications (Rx):	
Social History (SHx):	
Clinical pathway:	

2. What information is important for you to consider from the medical chart before you conduct your initial assessment of Margie's swallow?

3. Do you require any further information before you conduct your assessment of Margie? Where will you get this information?

4. What will you include in your initial assessment session of Margie's swallow? Provide an outline of your session in the space below.

Simulation activities

1. Use the Clinical Swallow Examination (CSE) form (located at the back of this booklet) to conduct your assessment.

2. Use the space provided below to document any extra notes/thoughts/considerations from the simulation.

You will now enter the simulation with Mrs Margaret (Margie) Henderson

Post simulation activities

1. What did you learn during this session? What will do differently during the next session?

Reflection Task:

Following the debrief for this simulation, consider some of the important information or feedback you received or gained from this simulation (from your clinical educator, simulated patient and peers). Space to record this information has been provided below.

Notes from Simulation 5:

Recommended reading:

1. Stroke Foundation (2018). *Clinical Guidelines for Stroke management 2017.* Retrieved 18 June 2018, from https://informe.org.au
2. Vogels, B., Cartwright, J., & Cocks, N. (2015). The bedside assessment practices of speech-language pathologists in adult dysphagia. International Journal of Speech-Language Pathology, 17(4), 390-400.
3. Atherton, M., Bellis-Smith, N., Cichero, J.A.Y., & Suter, M. (2007). Texture modified foods and thickened fluids as used for individuals with dysphagia: Australian standardised labels and definitions. *Journal of Nutrition and Dietetics, 64*(Suppl. 2), S53-S76.

SIMULATION SIX – Mrs Margaret (Margie) Henderson

Mrs Margaret Henderson is a 66 year old woman who suffered a left middle cerebral artery (MCA) stroke two days ago.

SIMULATION DETAILS:

In this simulation you will return to Margie's bedside to continue your assessment of her speech and language.

You will be required to:

1. Complete an informal assessment of Margie's speech and language.
2. Communicate the results of the speech and language assessment to Margie and her nurse Anna (if available).
3. Complete written progress notes for the results of the swallowing, speech and language assessments (post simulation activity).

The total session will run for **1hr and 30 mins**. Each student will have an opportunity to complete a section of the assessment (your clinical educator will ask you to approach the bedside when it is time for you to complete your section of the assessment). When you are not running the session you will be observing your peers.

The simulation will consist of three parts. All parts will be led by your clinical educator:

1. Prebrief– refer to pre simulation activities below.
2. Simulation – this will follow a pause-discuss method to support your learning.
3. Debrief.

INTENDED LEARNING OUTCOMES:

After participation in this clinical simulation, you will be able to:

1. Effectively administer an appropriate clinical bedside screening assessment of speech and language.
2. Effectively communicate and provide information to Margie and her nursing staff (if available) regarding Margie's current speech and language status.
3. Provide appropriate communication strategies to use with Margie to help facilitate her communication exchange.

SETTING:

NSHS Acute Stroke Unit, Ward 2C
Patient bedside

RESOURCES PROVIDED:

1. NSHS Basic Language Screener (located at the back of this booklet).
2. NSHS Informal Motor Speech Assessment (located at the back of this booklet).

Pre simulation activity

1. Before conducting the bedside screen of Margie's speech and language, answer the following questions:
    a. What do you already know about Margie's speech and language skills based on your observations during simulation 5?

    b. How will this impact your session in terms of your focus and interactions with Margie?

    c. What information do you still need to gather during the session?

    d. What components of the attached screeners/assessments will be appropriate to use with Margie (have any components already been covered in simulation 5). When would you consider stopping an assessment item?

2. Did you observe a useful way of delivering information or engaging with Margie during simulation 5? Discuss this with your student group.

NB: You will observe the session and complete part of the assessment

Simulation activities

1. Use the attached NSHS assessment/screener forms to conduct your assessment (located at the back of this booklet). Forms include: NSHS Basic Language Screener and NSHS Motor Speech Assessment.

2. Use the space provided below to document any extra notes/thoughts/considerations from the assessment.

You will now enter the simulation with Mrs Margaret (Margie) Henderson

Notes:

Post simulation activities

Clinical task:

1. You are required to provide an update/handover to the nurse regarding the results of your assessment and recommendations for communication strategies to use with Margie. Write down what you would plan to say during this interaction.

2. Did you observe a useful way of delivering information or engaging with Margie during Simulation 6? Discuss this with your student group. There is space below to document your thoughts.

3. You will now need to complete an initial chart entry (progress note) for your assessment sessions (Simulations 5 and 6) with Margie. The following example has been included to assist. You will have 30 mins to complete this task. Discuss with your clinical educator as to which parts you will focus on.

DD/MM/YY	**SPEECH PATHOLOGY:** Initial Assessment. Referral received with thanks. Noted this 77yo ♂
00:00	admitted with sudden deterioration and confusion over previous 24/12 as reported by wife.
	Current Dx: reaccumulation of (L) chronic SDH. PMHx noted. Hx of MVA (DD/MM/YY),
	sustained SDH. Burrhole procedure DD/MM/YY.
	O/E: SOOB, alert and cooperative. Consented to Ax.
	OROMOTOR:
	– CN V, VII, IX, X, XII: NAD; Nil dentures however pt states nil impact on mastication.
	SWALLOW:
	– Currently on full diet and thin fluids
	– Pt reports tolerating well. Nil difficulties reported by NS or pt.
	– Trialled with water and biscuit.
	Oral Phase:
	– Adequate lip seal for bolus containment; nil anterior spillage observed
	– Adequate mastication of biscuit; adequate manipulation and control of food/fluid bolus'
	– Oral transit time WNL; oral cavity clear post swallow.
	Pharyngeal Phase:
	– Spontaneous swallow initiation.
	– Adequate hyolaryngeal excursion on palpation. Complete and coordinated.
	– Adequate pharyngeal transit; 1-2 swallows palpated. Pt reported bolus cleared.
	– Nil clinical evidence of penetration +/- aspiration (nil cough or voice changes post swallow) observed ATOR.
	COMMUNICATION:
	Speech: Assessed informally during conversation.
	– Pt is 100% intelligible in conversation. Nil dysarthria/dyspraxia observed.
	Language: Assessed using the NSHS Basic Language Screener Assessment
	– Pt engaged well in assessment. Social interaction and pragmatics appeared WNL.
	Auditory Comprehension:
	– Slow processing time and impaired comprehension noted at times. Need to ascertain pre-morbid skills.
	– Pt used own strategies to aid comprehension – i.e. requesting clarification, repetitions and Indicating confusion, etc.
	Verbal Expression:
	– Mild word-finding difficulties (WFDs) noted.
	– Pt appears to have functional communication skills at ward level and basic social / conversational level
	IMPRESSION: Pt presents with nil evidence of dysphagia. Currently tolerating full diet and thin fluids and is suitable to continue. Pt presents with some WFDs and reduced comprehension however communication appears functional at ward level and basic conversational level.
	RECOMMENDATIONS:
	(1) Continue on full diet and thin fluids. Ensure pt is alert and upright for all oral intake
	(2) Monitor for signs of aspiration (decreased chest, temps, coughing or wet/gurgly voice)
	(3) Contact SP if any concerns.
	(4) D/W family re: pre-morbid level of comm^{n} and previous SP input.
	(5) Further comm^{n} Ax and Tx as indicated.
	PLAN: SP to continue to monitor while on ward.
	SIGNATURE (NAME OF SPEECH PATHOLOGIST) SPEECH PATHOLOGIST #(CONTACT NUMBER)

National Simulation Health Service PROGRESS NOTES INPATIENT	*(Affix Patient Label Here)* URN: Family Name: Given Name(s): Address: DOB: Sex:

DATE & TIME	*Add signature, printed name, staff category, date and time to all entries.* MAKE ALL NOTES CONCISE AND RELEVANT Leave no gaps between entries

National Simulation Health Service PROGRESS NOTES INPATIENT	*(Affix Patient Label Here)* URN: Family Name: Given Name(s): Address: DOB: Sex:

National Simulation Health Service

PROGRESS NOTES INPATIENT

(Affix Patient Label Here)

URN:

Family Name:

Given Name(s):

Address:

DOB: Sex:

National Simulation Health Service

PROGRESS NOTES INPATIENT

(Affix Patient Label Here)

URN:

Family Name:

Given Name(s):

Address:

DOB: Sex:

Reflection task:

Following the debrief for this simulation, consider some of the important information or feedback you received or gained from this simulation (from your clinical educator, simulated patient and peers). Space to record this information has been provided below.

Notes from Simulation 6:

References/recommended reading:

1. Darly, F.l., Aronson, A.E., & Brown, J.R. (1975). Motor Speech Disorders. Philadelphia: W.B. Saunders.
2. Duffy, J.R. (2013). *Motor speech disorders: Substrates, Differential Diagnosis and Management*. 3rd edition. St. Louis: Mosby. (Section titled "Distinguishing among the Dysarthrias" (p357-363) in Chapter 15).
3. Murray, L. L., & Clark, H. M. (2006). Neurogenic Disorders of Language: Theory Driven Clinical Practice. Clifton Park, NY: Thomson Delmar Learning. (Sections: "Aphasia" pp 25-38 (Chapter 2), "The Team" pp 88-92 (Chapter 4), "General Assessment Procedures" pp 92-108 (Chapter 4)).
4. Stroke Foundation (2018). Clinical Guidelines for Stroke management 2017. Retrieved 18 June 2018, from https://informe.org.au.

DAY 3 STATISTICS RECORD

Date	UR and PATIENT NAME	Time spent on Patient-Related Tasks *(Please round to nearest ¼ hour)*		
		Preparation	**Direct Contact** *(i.e. Ax or Tx)*	**Documentation**

ASSESSMENT RESOURCES

DAY 3

SIMULATIONS 5 and 6

CLINICAL SWALLOW EXAMINATION (CSE)

Patient: _____ URN: _____ Date of assessment: _____ Assessor: _____

Observations/Review of End of bed chart

Current diet/nutritional status:

❒ **Diet** – general or modified
❒ **Nil by Mouth** awaiting SP review
❒ **Non-oral feeding:** e.g. nasogastric tube (NGT), nasojejunal tube (NJT), percutaneous endoscopic gastrostomy (PEG), percutaneous endoscopic jejunostomy (PEJ), intravenous fluids (IV fluids), total parenteral nutrition (TPN).

Level of Alertness	❒ Alert and stable ❒ Responsive	❒ Drowsy but rousable ❒ Fluctuating alertness ❒ Fatigued during session	❒ Non-responsive/unable to be roused
Behaviour	❒ Cooperative ❒ Non cooperative	❒ Agitated ❒ Aggressive	❒ Unable to maintain attention
Positioning	❒ Lying in bed (LIB) ❒ Resting in bed (RIB)	❒ Sitting upright in bed (SUIB) ❒ Sitting out of bed (SOOB)	❒ Difficulty establishing appropriate posture (e.g. poor head control/sitting balance/staff required to assist
Hearing/sight	❒ Glasses *Details:*	❒ Hearing adequate ❒ Hearing impaired	❒ Wearing hearing aids ❒ No hearing aids
Dentition/oral hygiene	❒ Natural dentition *Details:*	❒ Dentures *Details:*	*Oral hygiene*
Respiratory Status	SpO_2 _____ Respiratory Rate (RR) _____ Please select from the below: ❒ Room air ❒ O_2 via NC (nasal cannula) _____ ❒ FiO_2 _____		
Communication	Language spoken: _____ Interpreter required? Yes / No Is the patient able to follow basic instructions? Can the patient functionally communicate their needs/wants? E.g., pain, hunger, thirst, need for the toilet etc. Are there any concerns regarding the patient's communication skills? If yes, provide details: ❒ dysarthria ❒ dysphonia ❒ dyspraxia ❒ AAC user *Details:*_____ ❒ Other? *Specifiy:*_____ Is there a need for further assessment of this patient's communication skills? Provide details: _____		

Oromotor / cranial nerve assessment

Cranial Nerve	Observations	Comments/Notes ***Strength, Symmetry, Speed, ROM, Coordination***
CNV Trigeminal	❒ Jaw opening / closing ❒ Jaw opening / closing with resistance ❒ Jaw strength ❒ Lateral movement of jaw	
CNVII Facial	❒ Facial symmetry at rest ❒ Raise / lower eyebrows ❒ Close / open eyes ❒ Frown ❒ Lips protrusion (kiss) ❒ Lips retraction (smile) ❒ SMR protrusion / retraction of lips (oo-ee) ❒ Lip seal (puff cheeks and hold air)	
CNIX, CNX Glossopharyngeal and Vagus	❒ Soft palate elevation (“ah”) ❒ Vocal quality ❒ Volitional cough ❒ Dry swallow ❒ Breath support	
CNXII Hypoglossal	❒ Tongue at rest ❒ Tongue protrusion ❒ Tongue lateralisation ❒ Lateralisation with resistance ❒ Tongue elevation (nose) ❒ Tongue depression (chin) ❒ Elevation / depression SMR ❒ Tongue ROM (lick lips) ❒ DDK	

Other comments:

_____

_____

_____

Swallowing assessment

Current nutritional status	❒ Oral diet *Details:*	❒ NBM (nil by mouth)	Alternative feeding: ❒ NGT / NJT ❒ PEG / PEJ ❒ TPN
Consistencies trialled	❒ Thin fluids ❒ Mildly thick fluids ❒ Moderately thick fluids ❒ Extremely thick fluids	❒ Normal diet ❒ Soft diet ❒ Minced-moist diet ❒ Puree diet	❒ Single sips ❒ Continuous drinking ❒ Mixed consistencies ❒ Other:
Other information	**Quantity trialled:** *Details:*	**Rate of intake:** ❒ Adequate ❒ Slow ❒ Too fast *Details:*	**Independence with feeding:** ❒ Self-feeding ❒ Requires assistance *Details:*

Phase of swallow	Parameters to observe/assess	Comments/Notes
Oral	• Lip seal • Oral manipulation / control of bolus • Mastication of solids • Oral preparation / transit time • Nasal regurgitation • Oral residue post swallow	Location of residue _____ Prompt required to clear? Yes / no; Effective Y/N
Pharyngeal	• Swallow initiation / trigger • Number of swallows per bolus • Hyolaryngeal excursion • Breath-swallow synchrony • Vocal changes post swallow (i.e. wet voice) • Airway protection i.e., Cough/throat clear – is it immediate or delayed.	

Were any compensatory swallow strategies trialled? ❒ **Yes** ❒ **No**

Details:

_____

_____

Other comments:

_____

_____

Summary of findings

Dysphagia: ❒ Nil ❒ Oral Phase ❒ Pharyngeal Phase

Severity: ❒ Mild ❒ Moderate ❒ Severe

Dysphagia characterised by:

_____

_____

_____

Patient at risk of aspiration: ❒ Yes ❒ No

Details:

_____

_____

_____

Recommendations

❒ NBM ❒ Referrals required: _____

❒ Oral diet ❒ Fluids: _____ ❒ Diet: _____

❒ Safe swallow/compensatory strategies:

_____

_____

❒ Instrumental assessment required?

_____

_____

❒ Swallow rehabilitation plan:

_____

_____

BASIC LANGUAGE SCREENER

Patient: _____ URN: _____ Date of assessment: _____ Assessor: _____

AUDITORY COMPREHENSION

Yes / No Questions: I'm going to ask you some questions. Answer yes or no *(responses may be verbal or gestural).*

Personal			Abstract		
Is your name Jeff / Jess?	1	0	Does it snow in winter?	1	0
Do you live in <*insert correct town or suburb*>?	1	0	Are circles round?	1	0
Is there a television in the room?	1	0	Is this a hotel?	1	0
Are you in hospital?	1	0	Can a car fly?	1	0
Are you awake?	1	0	Does April come before October?	1	0
Personal score:			Abstract score		
			TOTAL SCORE (personal + abstract):	____/10	

Single word comprehension: I'm going to ask you to point to some objects in the room.

Floor _____ Light _____ Chair _____
Ceiling _____ Pillow _____

Score _____ / 5

One stage commands: I'm going to ask you to do some things. Please listen to the whole instruction before you start.

Raise your arm _____ Touch your nose _____
Shake your head _____ Lick your lips _____

Score _____ / 4

Two stage and sequential commands: I'm going to ask you to do some things. Please listen to the whole instruction before you start.

Point to the ceiling and then to the floor _____
Before clapping your hands, close your eyes _____
After you touch your nose, touch the bed _____

Score _____ / 3

Complex commands (if appropriate):

Tap the chair twice with a clenched fist, while looking at the ceiling _____
Blink your eyes twice, then point to the ceiling and then the door _____

Score _____ / 2

VERBAL EXPRESSION

Automatic Speech: Can you tell me your…

Full name: _____
Address: _____

Score _____ / 2

Connected speech:

Can you tell me a bit about your family?

_____
_____
_____
_____

What is/was your occupation?

_____
_____
_____
_____

Serial speech: Can you…

Count from 1 to 20: _____
Say the days of the week: _____
Say the months of the year: _____

Score _____ / 3

Naming

Confrontation (object): *Locate/point to the following objects in the hospital room and asked the patient* 'What is the name for this?'

1. Pen _____
2. Bed _____
3. Cup/Mug _____
4. Light _____
5. Chair _____

Description: I am going to describe an object. I want you to name the object that I am describing.

1. What do we drink with? _____
2. What do we clean our teeth with? _____
3. What do we tell the time with? _____
4. What do we sleep in? _____
5. What do we write with? _____

Score _____ / 10

Phrase/sentence completion:
Can you finish these sentences for me?

1. Up and _____
2. Left and _____
3. Boys and _____
4. Shut the _____
5. The grass is _____

Score _____ / 5

Repetition

Words:
Say these words after me…

1. apple _____
2. sun _____
3. plant _____
4. table _____
5. hospital _____

Score _____ / 5

Phrases/ sentences:
Say these phrases after me…

1. The plane was fast _____
2. Pick up the phone _____
3. Roses are red, violets are blue _____
4. Do you know what the day is? _____
5. Along the river, there was a little brown cottage _____
   _____

Score _____ / 5

Picture description:
Look at this picture (use attached stimulus sheet*).* Tell me what is going on in this picture.

<transcribe patient response here>

READING COMPREHENSION (use attached stimulus sheet)

Please read these instructions and follow them.

Point to your:

1. nose _____
2. bed _____
3. chair _____
4. ceiling _____
5. pillow _____

Complete the following:

6. touch your nose _____
7. wave your hand _____
8. shake your head _____
9. touch your ear and your knee _____
10. close your eyes and tap your leg _____

Score _____ / 10

WRITTEN EXPRESSION (use the attached writing subtest response forms)

Name: _____

Address: _____

Score _____ / 2

Copying

C _____ O _____ A _____ F _____ Y _____

car _____

bottle _____

fly to the moon _____

Score _____ / 8

Dictation:

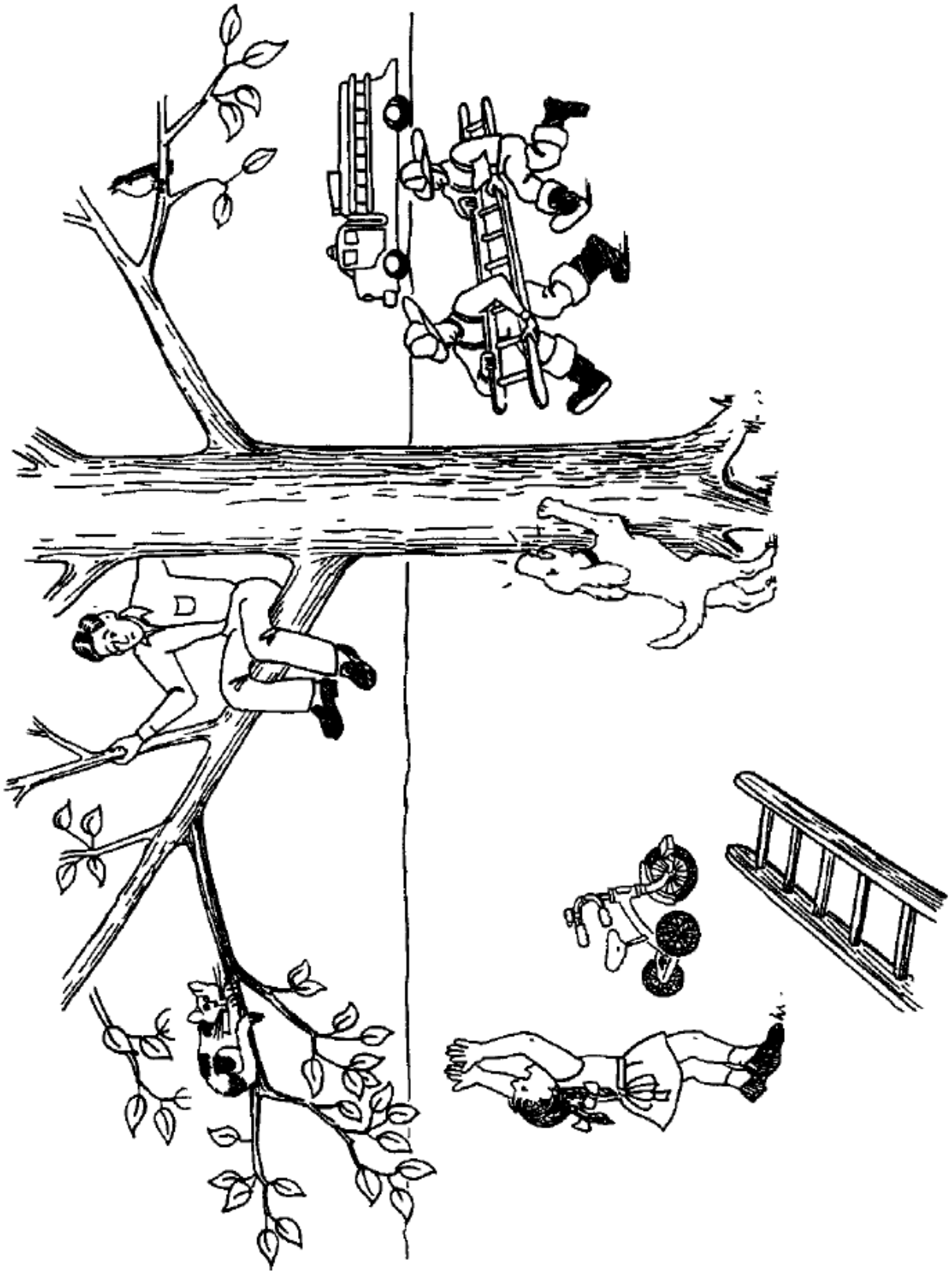
P _____ M _____ R _____ D _____ E _____

pen _____

pillow _____

jump up and down _____

Score _____ / 8



Read and follow these instructions:

Point to your nose

Point to the bed

Point to the chair

Point to the ceiling

Point to the pillow

Touch your nose

Wave your hand

Shake your head

Touch your ear and your knee

Close your eyes and tap your leg

Written expression response form

My name is:

_____

My address is:

_____

_____

_____

Copy these:

C _____ F _____

O _____ Y _____

A _____

car _____

bottle _____

fly to the moon _____

Letters:

1. _____
2. _____

3. _____
4. _____

Words/phrases:

1. _____
2. _____
3. _____

INFORMAL MOTOR SPEECH ASSESSMENT – DYSARTHRIA & APRAXIA

Patient: _____ URN: _____ Date of assessment: _____ Assessor: _____

Assessment of cranial nerve function

- Obtain information regarding: symmetry, strength, range, speed and coordination of orofacial movements.
- Observe musculature: at rest, during movement, during sustained postures, reflexive movements as appropriate.

Cranial nerve:	Observation:
V	
VII	
IX, X	
XII	

Vowel prolongation

Instruction to patient*: Take a deep breath and say 'Ah' for as long and as steadily as you can, until you run out of air.*

- Time _____ (seconds)
- Observe: Pitch, loudness, vocal quality, jaw, face, tongue and neck.

Normative Data: maximum duration of sustained phonation "ah"

Age group	Ages (years)	Mean (seconds)	SD
Male young children	3 -4	8.95	2.16
Male children	5 – 12	17.74	4.14
Male adults	13 – 65	25.89	7.41
Male seniors	65+	14.68	6.25
Female young children	3 - 4	7.5	1.80
Female children	5 – 12	14.97	3.87
Female adults	13 – 65	21.34	5.66
Female seniors	65+	13.55	5.70

(Colton & Casper, 2006)

Motion rate tasks

Instruction to patient: *'Take a breath and repeat _____ for as long and as steadily as you can'.*

- Observe speed, range, coordination and regularity of movements (articulatory of lips and jaw) and presence of interruptions or extraneous movements.

p^p^p^… _____

k^k^k^… _____

t^t^t^… _____

p^t^k^… _____

NB: If patient has difficulty with p^t^k^p^t^k^ substitute with 'buttercup, buttercup'.

Normative data:

Motion Rate Task:	Median syllables per second:
/p^p^p^…/	6.3 (SD 0.7)
/t^t^t^…/	6.2 (SD 0.8)
/k^k^k^…/	5.8 (SD 0.8)
/p^t^k^…/	5.0 (SD 0.7)

(Taken from Duffy, 2005)

Motion Rate Task:	Mean syllables per second:	
65-74 years	Males	Females
/p^p^p^…/	6.9 (SD 0.81)	6.3 (0.69)
/t^t^t^…/	6.8 (SD 0.43)	5.9 (SD 1.00)
/k^k^k^…/	6.3 (SD 0.75)	5.6 (SD 1.03)
/p^t^k^…/	6.1 (SD 5.4)	5.9 (SD 1.09)

Motion Rate Task:	Mean syllables per second:	
74-86 years	Males	Females
/p^p^p^…/	6.7 (SD 0.74)	5.9 (1.02)
/t^t^t^…/	6.4 (SD 1.08)	5.9 (SD 0.87)
/k^k^k^…/	5.8 (SD 1.17)	5.2 (SD 1.06)
/p^t^k^…/	5.4 (SD 1.67)	5.7 (SD 0.69)

(Taken from Pierce, Cotton & Perry, 2013)

CONNECTED SPEECH

Conversational / discourse analysis

Possible topics to elicit discussion:

- What brought you to hospital?
- What are your concerns with your speech?
- Where have you been to on holidays?
- Please tell be about the place where you were born / grew up?
- Hobbies/interests
- Tell me about your family

<transcribe response here>

Grandfather passage *(Darly et al., 1975)*

Instruction to patient: *Read the following story out loud* (use attached Grandfather Passage)

Comments:

_____
_____
_____
_____

Note:

- Approximate time to read aloud by normal speakers with normal reading skills: 35-45 seconds.
- Number of words in passage: 115 words.

Dysarthria Rating Scale *(Modified from Mayo Clinic in Duffy, 2005)*

Rate speech by assigning a value of 0-4 to each of the dimensions listed below.

0 = Normal | 1 = Mild | 2 = Moderate | 3 = Marked | 4 = Severely Deviant

***May be appropriate to use +/- to indicate in-between ratings.*

Dimension	Element	Rating	Dimension	Element	Rating
PITCH	Pitch level (+/-)		RESPIRATION	Forced inspiration-expiration	
	Pitch breaks			Audible inspiration	
	Mono pitch			Inhalatory stridor	
	Voice tremor			Grunt at end of expiration	
	Myoclonus		PROSODY	Rate	
	Diplophonia			Short phrases	
LOUDNESS	Mono loud			Increased rate in segments	
	Excess loudness variation			Increased rate overall	
	Loudness decay			Reduced stress	
	Alternating loudness			Variable rate	
	Overall loudness (+/-)			Prolonged intervals	
VOICE QUALITY	Harsh voice			Inappropriate silences	
	Hoarse (wet) voice			Short rushes of speech	
	Continuously breathy			Excess and equal stress	
	Transiently breathy		ARTICULATION	Imprecise consonants	
	Strained strangled			Prolonged consonants	
	Voice stoppages			Repeated phonemes	
	Flutter			Irregular articulatory breakdowns	
OTHER	Slow alternating motion rate (AMR)			Distorted vowels	
	Fast AMR		RESONANCE & INTRAORAL PRESSURE	Hypernasality	
	Irregular AMR			Hyponasality	
	Simple vocal tics			Nasal emission	
	Palilalia			Weak pressure	
	Coprolalia			Consonants	

Grandfather passage *(Darly et al, 1975)*

Read the following story aloud:

You wish to know all about my grandfather. Well he is nearly 93 years old, yet he still thinks as swiftly as ever. He dresses himself in an old black frock coat, usually with several buttons missing. A long beard clings to his chin, giving those who observe him a pronounced feeling of the utmost respect. Twice each day he plays skilfully and with zest upon a small organ. Except in the winter when the snow or ice prevents, he slowly takes a short walk in the open air each day.

We have often urged him to walk more and smoke less, but he always answers, “Banana oil!” Grandfather likes to be modern in his language.

Tests for Apraxia of Speech (AOS) and Oral Apraxia

(Taken from Mayo Clinic Apraxia Screener, Wetz et al., 2005)

1. Repeat:

/a/_____

/o/_____

/i/_____

/u/_____

/Ɛ/_____

/au/_____

/aɪ/_____

/eɪ/_____

/ɔɪ/_____

/m/_____

/p/_____

/b/_____

/n/_____

/t/_____

/d/_____

/k/_____

/g/_____

/f/ _____

/s/ _____

/z/ _____

/s/ _____

/ʃ/ _____

/tʃ/ _____

/dʒ/ _____

2. Name the days of the week

Sunday _____

Monday _____

Tuesday _____

Wednesday _____

Thursday _____

Friday _____

Saturday _____

3. Repeat:

mum _____

peep _____

bib _____

nine _____

tote _____

dad _____

coke _____

gag _____

fife _____

sis _____

zoos _____

shush _____

church _____

judge _____

lull _____

4. Repeat rapidly: (equal stress? Yes / No)

Snowman _____

Several _____

Tornado _____

Gingerbread _____

Artillery _____

Catastrophe _____

Impossibility _____

Statistical analysis _____

Methodist Episcopal Church _____

zip – zipper – zippering _____

please – pleasing – pleasingly _____

sit – city – citizen – citizenship _____

cat – catnip – catapult – catastrophe _____

door – doorknob – doorkeeper – dormitory _____

The valuable watch was missing _____

In the summer they sell vegetables _____

The shipwreck washed up on the shore _____

Please put the groceries in the refrigerator _____

References/recommended reading:

1. Chapter 6, Rehabilitation pp. 79-95 of the Clinical Guidelines for Stroke Management 2010, National Stroke Foundation http://www.strokefoundation.com.au/clinical-guidelines
2. Section titled "Distinguishing among the Dysarthrias" (p357-363) in Chapter 15 of the Online version of Duffy, J.R. (2013). *Motor speech disorders: Substrates, differential diagnosis and management*. 3rd edition. St. Louis: Mosby. (Get via UQ library)
3. Sections (listed below) from: Murray, L., & Clark, H. (2006). *Neurogenic disorders of language: Theory driven clinical practice*. Clifton Park, NY: Thomson Delmar Learning.
    - "Aphasia" pp 25-38 (Chapter 2)
    - "The Team" pp 88-92 (Chapter 4)
    - "General Assessment Procedures" pp 92-108 (Chapter 4)
4. Colton, R.H., & Casper, J. (2006). *Understanding Voice Problems: A Physiological Perspective for Diagnosis and Treatment.* Baltimore, MD: Lippincott Williams & Wilkins.

5. Darly, F.l., Aronson, A.E., & Brown, J.R. (1975). *Motor Speech Disorders.* Philadelphia: W.B. Saunders.
6. Duffy, J.R. (2005). *Motor Speech Disorders: Substrates, Differential Diagnosis and Management*. 2nd Ed. St Louis, Mo: Elsevier Mosby.
7. Pierce, J.E., Cotton, S., & Perry, A. (2013). Alternating and Sequential Motion Rates in Older Adults. *International Journal of Language and Communication Disorders, 48*(3)*,* 257-264.
8. Wetz, R., LaPointe, L., Rosenbek, Grune, Stratton & Mayo Clinic (2005). Table 3.3 Tasks for assessing speech planning or programming capacity (apraxia of speech). In Duffy, J (2nd ed.). Motor speech disorders: Substrates, Differential Diagnosis and Management (pp. 95). St Louis, Missouri: Mayo Foundation for Medical Education Research.