Parts of Speech

Dysarthria – Difficult articulation – mouth, tongue, face, nn, upper motor CNs, Extraparymidal, Cerebellar
Dysphonia – Abnormal quality – vocal cords
Dysphasia – Higher centre problem with the use of symbols of communication – speech, writing, reading
- Expressive – Broca's area – Non fluent, halting, comprehension normal
- Receptive – Wernike's area – Fluent, disorganised, poor comprehension
- Conductive – Arcurate fasiculus linking the two – fluent, disorganised, can follow command
- Nominal – Not localising. Present with all, and if lone finding may be recovering for any

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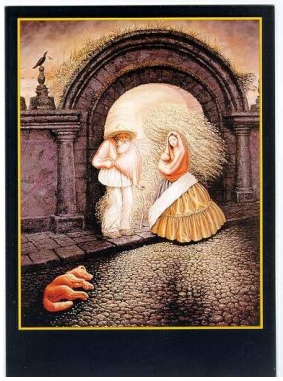
Screening examination of speech

Introduce yourself. Shake hands. Are you left or right handed.

Generate free/propositional speech as a basic screen by asking them to describe the room, your tie, or the picture shown opposite. Based on this, decide if the patient has Dysarthria, Dysphonia, Dysphasia and if Dysphasia – whether it is fluent or non-fluent

Comprehension	Touch your chin, then your nose, then your ear Do you put your shoes on before your socks?
Repetition	pleas say "No Ifs, And or Buts"
Nomination	Name two objects (either supply them, or from the picture)
Articulation	Please say "British Constitution"



Dysarthria

Pseudobulbar palsy – UMN IX,X,XII±UL. emotion
Bulbar Palsy – LMN IX,X,XII. Wasting, nasal
Parkinsons – Monotonous. Parkinsons neuro
Cerebellar – Slow, slurred, explosive, drunken or speech broken up into syllables = scanning

Progress to testing of CN and facial mms, Extra pyramidal disease and cerebellar depending on your findings, then onto likely causes – vascular disease for infarcts, cancer for mets/space occupying lesions, rest of neuro exam etc.

Dysphonia

Laryngeal disease. Viral, cords or nerves

Progress to ENT exam, airway assessment, laryngoscopy, nerves

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Non-fluent Dysphasia (expressive)

Progress to preserved speech – numbers, alphabet, songs, swears fluently when upset.
Progress to reading, writing (may be impaired) and higher centre testing with all dysphasia

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Fluent Dysphasia (receptive / conductive / nominal)

Receptive Dysphasia	**Conductive Dysphasia**
Not able to understand/follow spoken or written commands. (reading impaired = dyslexia)	Not able to repeat or name
Writing has abnormal content or if dominant frontal lesion have impaired writing (dysgraphia)	Able to follow commands well Reading impaired (Dyslexia) Writing is impaired (Dysgraphia)

Cerebellum

Unlikely you will have "examine cerebellar function" as a short. More likely you will discover a cerebellar problem in a neuro exam and will progress to examine the cerebellum

Cerebellar disease is ipsilateral to lesion
Midline lesion = truncal ataxia, abn heel-toe, abn speech
Rostral vermis = lower limbs (etoh)
Other Cb signs decide unilateral or bilateral

Cerebellar Exam

Nystagmus – horizontal greatest when look to side of lesion
Speech – Jerky, explosive, loud, irregular rhythm

UL	Extend arms – upper limb drift
	Hypotonia
	Finger nose – past pointing, intent tremor
	Dysdiadochokinesia
	Rebound – raise arms and suddenly stop
LL	Hypotonia
	Heel shin – drift on affected side(s)
	Great toe-finger test – Intention tremor, past pointing
	Foot tapping (dysdiadochokinesia)
Trunk	Fold arms and sit up
	Swing legs over side of bed – pendular knee jerk = hypotonia
	Gait examination – stagger / falls to affected side.

Progress

Unilateral	Cranial nerves for CP angle tumour or Lat medullary syndrome	Bilateral	MS
	Fundi for papilloedema		Friedreich's ataxia (pes cavus, kyphoscoliosis, peri neurop)
	Peripheral signs of malignant disease		Hypothyroidism
	Vascular disease carotids / vertebrals		Etoh (LL disease >> UL)
Midline	Look for malignancy / paraneoplastic		
	Midline tumor		Look for UMN signs – spinocerebellar degen, MS, Arnold Chiari, Syphilis, Syrinx, Lesion at craniospinal jn (meningioma), CVA