02 - A. Tests for frontal and parietal lobes

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1. Lobar functions A. Tests for frontal and parietal lobes Frontal tests Comments Similarities Comparing two objects to test the ability of ‘categorisation’ and not a description of common ‘parts’. This is a test for abstract ability. Lexical fluency Naming items bought in a supermarket or animals (category fluency) or generation of words starting with alphabets FAS (word fluency). Tests not only the speed and accuracy but also the ability to shift from one set of objects to the next. e.g., supermarket list must include not only fruits, but also baked goods, drinks, cleaning items, etc. Luria motor test Fist palm edge – must not be verbally facilitated. Test for motor planning, execution and error correction. Go/on go test Tests response inhibition, the absence of perseveration and resistance to interference. Cognitive estimates test E.g. ‘How tall is an average English woman?’ Use questions that need abstract not mere factual thinking. Trail making test

Consists of two parts. In part, A simple number sequence is used to join the dots. Test B uses alternating numbers and letters and is thought to be more sensitive to frontal lobe dysfunction. Not specific for frontal lobe; tests visuomotor tracing, attention, conceptualisation and set shifting. Other tests Include alternate pyramids and squares drawing, proverb interpretation, and to some extent frontal release signs and digit span (normal: 7±2 forwards, 5±1 backwards) reflect frontal functions.

Parietal test Comments Copying shapes Ability to draw shapes and constructing geometrical patterns is a parietal (esp. nondominant) function. Identifying fingers Dominant parietal damage can cause finger agnosia as a part of Gerstmann syndrome. Test for the ability to recognise the touched finger when eyes are closed. Also test for the ability to correctly show one’s index, middle and ring fingers. Interlocking fingers test (ability to copy examiner’s interlocked fingers) is also a parietal test. Calculation ability Dominant parietal damage can cause acalculia as a part of Gerstmann syndrome. Test for simple mathematical functions. Mere recognition and use of numbers constitute arithmetic ability; this is often intact. Graphesthesia Ability to recognise what

number or alphabet is scratched on one’s skin without seeing. Bilateral parietal function (somatosensory cortices) Right Left orientation Dominant parietal damage can cause right-left disorientation as a part of Gerstmann syndrome. Test for the ability to touch right ear lobe with the left index finger when eyes are closed. Stereognosis Ability to recognise objects by palpation, and without visual inspection. Bilateral parietal function (somatosensory cortices) Two point discrimination Cortical sensation; bilateral somatosensory cortical function Visual inattention Hemineglect is a feature of parietal lesions. Letter or star cancellation task, line bisection task, draw-a-person or draw-a-tree tasks are useful to identify hemineglect.

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