2023-08-24

A pilot examination of the validity of stylus and finger drawing on visuomotor-mediated tests on ACEmobile

Noad, R

https://pearl.plymouth.ac.uk/handle/10026.1/21673

Supplementary Analyses

Frequency distribution of scores (%)

Subtest	Score	Control			AD		
		Pencil	Stylus	Finger	Pencil	Stylus	Finger
Infinity Loop	0	4	5	9	23	19	28
	1	96	95	91	77	81	72
Cube	0	4	0	9	15	24	28
	1	13	11	14	23	29	28
	2	83	89	77	62	48	44
Clock Drawing	0	0	0	0	0	5	0
	1	0	0	0	4	5	8
	2	0	0	0	19	29	4
	3	4	11	5	15	5	38
	4	9	5	29	23	29	21
	5	87	84	67	39	29	29
Sentence Writing	0	9	0	14	38	38	29
	1	22	42	48	38	24	42
	2	70	58	38	23	38	29

Sensitivity, specificity and area under the curve for infinity loop, cube and clock with 95% confidence intervals (CI)

Test	Method	Cut off	Sensitivity (%)	Specificity (%)	AUC
Infinity loop	Pencil (n = 49	0	23.1 [9.0, 43.7]	95.7 [78.1, 99.9]	0.594 [0.501, 0.687]
	Stylus (n = 40)	0	19.1 [5.5, 41.9]	94.7 [74.0, 99.9]	0.569 [0.469, 0.669]
	Finger (n = 47)	0	28.0 [12.1, 49.4]	90.9 [70.8, 98.9]	0.595 [0.486, 0.703]
Cube	Pencil (n = 49)	≤1	38.5 [20.2, 59.4]	82.6 [61.2, 95.1]	0.610 [0.486, 0.734]
	Stylus (n = 40)	≤1	52.4 [29.8, 74.3]	89.5 [66.9, 98.7]	0.722 [0.595, 0.849]
	Finger (n = 47)	≤1	56.0 [34.9, 75.6]	77.3 [54.6, 92.2]	0.673 [0.536, 0.809]
Clock	Pencil (n = 49)	≤2	23.1 [9.0, 43.7]	100.0 [85.2, 100.0]	0.759 [0.644, 0.874]
	Stylus (n = 40)	≤2	38.1 [18.11, 61.6]	100.0 [82.4, 100.0]	0.795 [0.668, 0.921]
	Finger (n = 45)	≤2	12.5 [2.7, 32.4]	100.0 [83.9, 100.0]	0.757 [0.625, 0.889]
Sentence Writing	Pencil (n = 49)	≤1	69.6 [47.1, 86.8]	76.9 [56.4, 91.0]	0.758 [0.629, 0.886]
	Stylus (n = 40)	≤1	57.9 [33.5, 79.8]	61.9 [38.4, 81.9]	0.679 [0.524, 0.835]
	Finger (n = 45)	≤1	38.1 [18.1, 61.6]	70.8 [48.9, 87.4]	0.584 [0.427, 0.741]