

Supplementary Online Content

Novak I, Morgan C, Adde L, et al. Early, ac

eTable. Major Diagnostic Advances in Cerebral Palsy Best-Available Evidence

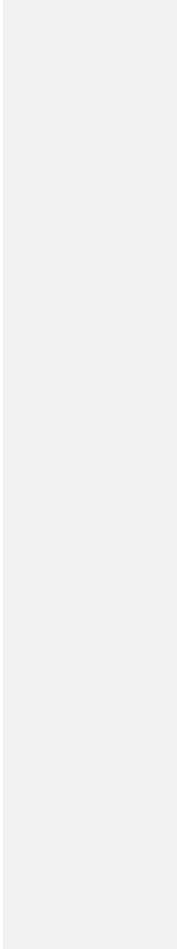
Tool	Citation	Type of Evidence	Number Studies	Number Patients	Population	Age at Exam	Accuracy of Detecting Risk for Cerebral Palsy	QUADAS Quality
MOTOR DYSFUNCTION TOOLS								
AIMS <i>Norm-referenced gross motor assessment</i>	Heineman 2008	Systematic review	2 <i>AIMS</i>	Unable to calculate from review	Newborn high risk for CP & other diagnoses	3-18 months	<i>Cerebral Palsy</i> Authors conclude moderate predictive validity but no values reported	14/14
	Spittle 2008	Systematic review	2 <i>AIMS</i>	205	Preterm newborn high risk for CP	4, 6 & 8 months	<i>Cerebral Palsy</i> No data available in review <i>Abnormal Motor</i> Sensitivity = 77-86% Specificity = 81-93%	14/14
GMs <i>Quality of movement assessment</i>	Bosanket 2013	Systematic review with meta-analysis	6 <i>GMs</i>	1358	Newborn high risk for CP	3-5 months CA	<i>Cerebral Palsy</i> Sensitivity = 98% Specificity = 91% A trajectory of longitudinal assessments are more predictive GMs with MRI provided more accurate prognostic information than the individual tools	14/14
	Burger	Systematic	17 <i>GMs</i>	1820	Newborn	3-5	<i>Cerebral</i>	14/14

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	2009	c review			high risk for CP	month s CA	<i>Palsy</i> Sensitivity = 92% Specificity = 82%	
	Darsaklis 2011	Systemati c review	39					

							the mean i.e. 15 points Probability for CP = high (35%), as the score decreases (>1SD) i.e. 20 points Probability for CP = very high (83%), as the score decreases (>2SD) i.e. 30 points	
MAI <i>Standardized motor assessment, also assessing tone and reflexes</i>	Heineman 2008	Systematic review	7 MAI	Unable to calculate from review				

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				review	diagnoses		good predictive validity but no values reported	9/15/17 Jp1.14378 0DSys
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Tool	Citation	Type of Evidence	Number of Studies	Number of Patients	Population	Age at Exam	Accuracy of Detecting Risk for
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							accurate prognostic information than the individual tools. Normal neonatal MRI or moderate white matter lesions = HINE scores (>73) and normal motor outcome. Severe basal ganglia lesions were associated with HINE scores (<40) and CP	
	Heineman 2008	Systematic review	4 <i>HINE</i>	Unable to calculate from review	Newborn high risk for CP & other diagnoses	3-18 months	<i>Cerebral Palsy</i> Authors conclude good predictive validity but no values reported	14/14

Tool	Citation	

							87%	
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Tool	Citation	Type of Evidence	Number Studies	Number Patients	Population	Age at Exam	Accuracy of Detecting Risk for Cerebral Palsy	QUADAS Quality
CUS continued	Ment 2002	Clinical Practice Guideline	7 CUS	2045	Preterm <30 wks as newborn high risk for CP & other outcomes	7-14 days of age	<p><i>Cerebral Palsy</i> Grade 3 & 4 IVH, cystic PVL, and/or moderate-severe ventriculomegaly injuries were predictive of CP <i>CUS = established as predictive</i></p> <p><i>Recommendation:</i> Routine CUS screening should be performed on all infants of <30-weeks' GA once between 7-14 days of age. Plus repeated between 36-40 weeks'</p>	14/14
CT	Ashwal 2004	Clinical Practice Guideline	9 CT	782	CP	7months-16yrs	<p><i>Cerebral Palsy</i> Sensitivity = 77% Yield varied by CP type (hemiplegic > ataxic > mixed > diplegic > quadriplegic > hypotonic > dyskinetic)</p> <p><i>Recommendation:</i> Neuroimaging should be conducted using MRI, preferably to CT, because MRI is more accurate</p>	14/14

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