Newborn Screening Laboratory Analyte Cutoff Values

UPDATED: July 2024

DISORDER GROUP	DISORDER	PRIMARY MARKER	CUTOFF	SECONDARY MARKER(S)	CUTOFF
Amino Acids	MSUD	Leucine	270	Valine	200
				Leu/Phe	4
	Citrullinemia	Citruline	40	Cit/Arg	6
	HCY	Methionine	60	- - - - -	- - -
	PKU	Phenylalinine	110	Phe/Tyr	2
	Tyrosinemia Type 2	Tyrosine	300	- - - - -	- - -
	Tyrosinemia Type 1	Succinylacetone	0.55	- - - - -	- - -
	Arginemia	Arginine	70	- - - - -	- - -

DISORDER GROUP	DISORDER	PRIMARY MARKER	CUTOFF	SECONDARY MARKER(S)	CUTOFF
Fatty Acid	SCAD/IBG	C4	1.8	C4/C3	0.5
	MCAD	C8	0.46	C6	0.26
				C10	0.41
				C10:1	0.35
				C8/C10	3
	VLCAD	C14:1	0.75	C14	0.8
				C14:2	0.16
				C18	2
				C14:1/C16	0.24
	LCHAD	C16OH	0.08	C16:1OH	0.13
				C18OH	0.11
	TFP	C18:1OH	0.1	C16OH/C16	0.15
	CUD	C0 (low)	8	- - - - -	- - -
	CPT I	C0/C16+C18	50	- - - - -	- - -
	MCD	C5OH	1.7	- - - - -	- - -

DISORDER GROUP	DISORDER	PRIMARY MARKER	CUTOFF	SECONDARY MARKER(S)	CUTOFF
Organic Acid	CPT II	C16	8	C18:1	2.5
	PA/MMA	C3	6.8	C3/C2	0.2
				C3/C16	2.5
	IVA/MBCD	C5	0.9	C5/C3	0.5
	3-MCC/HMG/3-MGA	C5OH	1.7	C6DC	0.23
				C5OH/C8	20
	MAL	C3DC	0.4	- - - - -	- - -
	BKT	C5:1	0.15	- - - - -	- - -
	GA I	C5DC	0.25	- - - - -	- - -
	GA II	C0 (high)	125	- - - - -	- - -
DISORDER GROUP	**DISORDER**	**PRIMARY MARKER**	**CUTOFF**	**SECONDARY MARKER(S)**	**CUTOFF**
Peroxisomal Storage Disorder	X-linked Adrenoleukodystrophy	C26	0.7	- - - - -	- - -
DISORDER GROUP	**DISORDER**	**PRIMARY MARKER**	**CUTOFF**	**SECONDARY MARKER(S)**	**CUTOFF**
Endocrine	Congenital Hypothyroidism	TSH	20	T4	6.8
	Congenital Adrenal Hyperplasia	170HP	25	- - - - -	- - -
	Cystic Fibrosis 1st tier	IRT	daily top 5%	CFTR mutation	none
DISORDER GROUP	**DISORDER**	**PRIMARY MARKER**	**CUTOFF**	**SECONDARY MARKER(S)**	**CUTOFF**
Metabolic	Galactosemia	GALT enzyme	5.5	Total Galactose	10
	Biotinidase Deficiency	BTD enzyme	60	- - - - -	- - -
DISORDER GROUP	**DISORDER**	**PRIMARY MARKER**	**CUTOFF**	**SECONDARY MARKER(S)**	**CUTOFF**
Immunodeficiency	Severe Combined Immunodisorder	TREC	33.5	- - - - -	- - -
DISORDER GROUP	**DISORDER**	**PRIMARY MARKER**	**CUTOFF**	**SECONDARY MARKER(S)**	**CUTOFF**
Other	Hemoglobinopathies	N/A	FA	- - - - -	- - -
	Spinal Muscular Atrophy	SMN1	40	- - - - -	- - -

DISORDER GROUP	DISORDER	PRIMARY MARKER	CUTOFF	SECONDARY MARKER(S)	CUTOFF
Lysosomal Storage Disorders					
	Pompe Disease	GAA	1.2	- - - - -	- - - - -
	Fabry Disease	GLA	3.4	- - - - -	- - -
	Hurler Syndrome	IDUA	2.9	- - - - -	- - - - -
	Hunter Syndrome	I2S	3.7	- - - - -	- - -
	Morquio Syndrome	GALNS	0.64	- - - - -	- - - - -