## SERVICE DELIVERABLES FOR CORD BLOOD ANALYSIS

## Research use only

All listed biomarkers are available for Serum and Heparin plasma samples. Biomarkers marked with \* are not available for EDTA plasma samples. Biomarkers marked with \*\* are not available for Citrate plasma samples.

Name	Unit	Name	Unit
Cholesterol		Phosphatidylcholines	mmol/l
Total cholesterol	mmol/l	Sphingomyelins	mmol/l
Total cholesterol minus HDL-C Remnant cholesterol (non-HDL, non-LDL -cholesterol)	mmol/l mmol/l	Apolipoproteins	
VLDL cholesterol	mmol/l	Apolipoprotein B	g/l
Clinical LDL cholesterol	mmol/l	Apolipoprotein A1	g/l
LDL cholesterol	mmol/l	Ratio of apolipoprotein B to apolipoprotein A1	ratio
HDL cholesterol	mmol/l	Fatty acids	
Triglycerides		Total fatty acids	mmol/l
Total triglycerides	mmol/l	Degree of unsaturation	degree
Triglycerides in VLDL	mmol/l	Omega-3 fatty acids	mmol/l
Triglycerides in LDL	mmol/l	Omega-6 fatty acids	mmol/l
Triglycerides in HDL	mmol/l	Polyunsaturated fatty acids	mmol/l
Dhaanhalinida		Monounsaturated fatty acids	mmol/l
Phospholipids		Saturated fatty acids	mmol/l
Total phospholipids in lipoprotein particles	mmol/l	Linoleic acid	mmol/l
Phospholipids in VLDL	mmol/l	Docosahexaenoic acid	mmol/l
Phospholipids in LDL	mmol/l		
Phospholipids in HDL	mmol/l	Fatty acid ratios	
		Ratio of omega-3 fatty acids to total fatty acids	%
Cholesteryl esters		Ratio of omega-6 fatty acids to total fatty acids	%
Total esterified cholesterol	mmol/l	Ratio of polyunsaturated fatty acids to total fatty acids	%
Cholesteryl esters in VLDL	mmol/l	Ratio of monounsaturated fatty acids to total fatty acids	%
Cholesteryl esters in LDL	mmol/l	Ratio of saturated fatty acids to total fatty acids	%
Cholesteryl esters in HDL	mmol/l	Ratio of linoleic acid to total fatty acids	%
		Ratio of docosahexaenoic acid to total fatty acids	%
Free cholesterol		Ratio of polyunsaturated fatty acids to monounsaturated fatty acid	s %
Total free cholesterol	mmol/l	Ratio of omega-6 fatty acids to omega-3 fatty acids	%
Free cholesterol in VLDL	mmol/l	Austral and the	
Free cholesterol in LDL	mmol/l	Amino acids	
Free cholesterol in HDL	mmol/l	Alanine	mmol/l
	THILD #	Glutamine	mmol/l
Total lipids		Glycine	mmol/l
Total linida in linearatain particlas	mmol/l	Histidine	mmol/l
Total lipids in lipoprotein particles Total lipids in VLDL	mmol/l	<b>B</b>	
Total lipids in LDL	mmol/l	Branched-chain amino acids	
Total lipids in HDL	mmol/l	Total concentration of branched-chain amino acids (leucine +	mmol/l
Total lipids in TIDE	mmoin	Isoleucine + valine)	
Lipoprotein particle concentrations		Isoleucine	mmol/l
Tatal as a sector time of the second size workful as		Leucine	mmol/l
Total concentration of lipoprotein particles	mmol/l	Valine	mmol/l
Concentration of VLDL particles Concentration of LDL particles	mmol/l mmol/l		
Concentration of HDL particles	mmol/l	Aromatic amino acids	
concentration of TDE particles	mmoin	Phenylalanine	mmol/l
Lipoprotein particle sizes		Tyrosine	mmol/l
Average diameter for VLDL particles	nm	<b>•</b> •••••••••••	
Average diameter for LDL particles	nm	Glycolysis related metabolites	
Average diameter for HDL particles	nm	Glucose	mmol/l
Other linide		Lactate	mmol/l
Other lipids		Pyruvate	mmol/l
Phosphoglycerides	mmol/l	Citrate **	mmol/l
Ratio of triglycerides to phosphoglycerides	ratio	Glycerol *	mmol/l
Total cholines	mmol/l		

Service Deliverables for Cord Blood Analysis

Ketone bodies   M     3-Hydroxybutyrate   mmol/l   C     Acetate   mmol/l   T     Acetoacetate   mmol/l   T     Acetone   mmol/l   S     Fluid balance   C   T     Creatinine   mmol/l   g/l     Albumin   g/l   ff     Giycoprotein acetyls   mmol/l   ff     Lipoprotein subclasses   mmol/l   ff     Concentration of chylomicrons and extremely large VLDL   mmol/l   mmol/l     Total lipids in very large VLDL (average diameter 64 nm)   ff   ff     Concentration of large VLDL particles   mmol/l   mmol/l     Total
Acetate   mmol/l   To     Acetone   mmol/l   Si     Acetone   mmol/l   Si     Fluid balance   C   To     Creatinine   mmol/l   g/l     Inflammation   g/l   If     Inflammation   g/l   If     Glycoprotein acetyls   mmol/l   mmol/l     Lipoprotein subclasses   mmol/l   mmol/l     Concentration of chylomicrons and extremely large VLDL particles   mmol/l   mmol/l     Yery large VLDL (average diameter 64 nm)   mmol/l   mmol/l   mmol/l     Concentration of very large VLDL particles   mmol/l   mmol/l   total lipids in very large VLDL particles   mmol/l     Large VLDL (average diameter 53.6 nm)   C   mmol/l   total lipids in large VLDL particles   mmol/l     Medium VLDL (average diameter 44.5 nm)   Concentration of medium VLDL particles   mmol/l   mmol/l     Small VLDL (average diameter 36.8 nm)   Concentration of small VLDL particles   mmol/l   mmol/l     Small VLDL (average diameter 31.3 nm)/l   mmol/l   mmol/l   Small VLDL (average diameter 31.3 nm)   mmol/l
Fluid balance   Trownol/l     Creatinine   mmol/l     Albumin   g/l     Inflammation   if     Glycoprotein acetyls   mmol/l     Lipoprotein subclasses   mmol/l     Chylomicrons and extremely large VLDL (particle diameters from 75 nm upwards)   mmol/l     Concentration of chylomicrons and extremely large VLDL particles   mmol/l     Total lipids in chylomicrons and extremely large VLDL   mmol/l     Very large VLDL (average diameter 64 nm)   mmol/l     Concentration of very large VLDL particles   mmol/l     Total lipids in very large VLDL   mmol/l     Concentration of large VLDL particles   mmol/l     Concentration of large VLDL particles   mmol/l     Large VLDL (average diameter 53.6 nm)   mmol/l     Concentration of large VLDL particles   mmol/l     Medium VLDL (average diameter 44.5 nm)   mmol/l     Concentration of medium VLDL particles   mmol/l     Total lipids in medium VLDL   mmol/l     Small VLDL (average diameter 36.8 nm)   mmol/l     Concentration of small VLDL particles   mmol/l     Total lipids in small VLDL   mmol/l     Small VLDL (average dia
Creatinine Albuminmmol/l g/lInflammationif ofGlycoprotein acetylsmmol/lLipoprotein subclassesmmol/lChylomicrons and extremely large VLDL 
InflammationofGlycoprotein acetylsmmol/lmmol/lLipoprotein subclassesmmol/lmmol/lChylomicrons and extremely large VLDL (particle diameters from 75 nm upwards)mmol/lConcentration of chylomicrons and extremely large VLDL particles Total lipids in chylomicrons and extremely large VLDL (average diameter 64 nm)mmol/lVery large VLDL (average diameter 64 nm)mmol/lConcentration of very large VLDL particles Total lipids in very large VLDL particles Total lipids in very large VLDL particles Total lipids in large VLDL particles Total lipids in large VLDL particles Total lipids in large VLDL particles Total lipids in large VLDL particles mmol/l mmol/lmmol/l mmol/l mmol/lMedium VLDL (average diameter 44.5 nm)mmol/lmmol/l mmol/lSmall VLDL (average diameter 36.8 nm)mmol/l mmol/lmmol/l mmol/lConcentration of small VLDL particles Total lipids in small VLDL (average diameter 31.3 nm)
Lipoprotein adelyts   mmol/l     Lipoprotein subclasses   Chylomicrons and extremely large VLDL (particle diameters from 75 nm upwards)     Concentration of chylomicrons and extremely large VLDL particles in chylomicrons and extremely large VLDL particles mmol/l   mmol/l     Very large VLDL (average diameter 64 nm)   mmol/l     Concentration of very large VLDL particles in very large VLDL particles   mmol/l     Concentration of large VLDL particles   mmol/l     Medium VLDL (average diameter 53.6 nm)   mmol/l     Concentration of large VLDL particles   mmol/l     Medium VLDL (average diameter 44.5 nm)   mmol/l     Small VLDL (average diameter 36.8 nm)   mmol/l     Concentration of small VLDL particles   mmol/l     Total lipids in small VLDL particles   mmol/l     Small VLDL (average diameter 36.8 nm)   mmol/l     Concentration of small VLDL particles   mmol/l     Yery small VLDL (average diameter 31.3 nm)   mmol/l
Lipoprotein subclassesChylomicrons and extremely large VLDL (particle diameters from 75 nm upwards)Concentration of chylomicrons and extremely large VLDL particles mmol/1Total lipids in chylomicrons and extremely large VLDL particles mmol/1Very large VLDL (average diameter 64 nm)Concentration of very large VLDL particles mmol/1Total lipids in very large VLDL particles mmol/1Total lipids in very large VLDL particles mmol/1Mmol/1 mmol/1Concentration of large VLDL particles mmol/1Mmol/1 mmol/1Total lipids in large VLDL particles mmol/1Mmol/1 mmol/1Concentration of medium VLDL particles mmol/1Mmol/1 
(particle diameters from 75 nm upwards)Concentration of chylomicrons and extremely large VLDL particles Total lipids in chylomicrons and extremely large VLDLmmol/lVery large VLDL (average diameter 64 nm)mmol/lConcentration of very large VLDL particles Total lipids in very large VLDLmmol/lLarge VLDL (average diameter 53.6 nm)mmol/lConcentration of large VLDL particles Total lipids in large VLDLmmol/lMedium VLDL (average diameter 53.6 nm)mmol/lConcentration of large VLDL particles Total lipids in large VLDLmmol/lMedium VLDL (average diameter 44.5 nm)mmol/lConcentration of medium VLDL particles Total lipids in medium VLDLmmol/lSmall VLDL (average diameter 36.8 nm)mmol/lConcentration of small VLDL particles mmol/lmmol/lSmall VLDL (average diameter 36.8 nm)mmol/lConcentration of small VLDL particles Total lipids in small VLDL (average diameter 31.3 nm)
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Total lipids in very large VLDLmmol/lLarge VLDL (average diameter 53.6 nm)mmol/lConcentration of large VLDL particlesmmol/lTotal lipids in large VLDLmmol/lMedium VLDL (average diameter 44.5 nm)mmol/lConcentration of medium VLDL particlesmmol/lTotal lipids in medium VLDL particlesmmol/lSmall VLDL (average diameter 36.8 nm)mmol/lConcentration of small VLDL particlesmmol/lYery small VLDL (average diameter 31.3 nm)mmol/l
Concentration of large VLDL particlesmmol/lTotal lipids in large VLDLmmol/lMedium VLDL (average diameter 44.5 nm)mmol/lConcentration of medium VLDL particlesmmol/lTotal lipids in medium VLDLmmol/lSmall VLDL (average diameter 36.8 nm)mmol/lConcentration of small VLDL particlesmmol/lTotal lipids in small VLDL particlesmmol/lVery small VLDL (average diameter 31.3 nm)mmol/l
Total lipids in large VLDL   mmol/l     Medium VLDL (average diameter 44.5 nm)   mmol/l     Concentration of medium VLDL particles   mmol/l     Total lipids in medium VLDL   mmol/l     Small VLDL (average diameter 36.8 nm)   mmol/l     Concentration of small VLDL particles   mmol/l     Total lipids in small VLDL (average diameter 36.8 nm)   mmol/l     Very small VLDL (average diameter 31.3 nm)   mmol/l
Concentration of medium VLDL particlesmmol/lTotal lipids in medium VLDLmmol/lSmall VLDL (average diameter 36.8 nm)Concentration of small VLDL particlesConcentration of small VLDL particlesmmol/lTotal lipids in small VLDLmmol/lVery small VLDL (average diameter 31.3 nm)
Total lipids in medium VLDLmmol/lSmall VLDL (average diameter 36.8 nm)mmol/lConcentration of small VLDL particlesmmol/lTotal lipids in small VLDLmmol/lVery small VLDL (average diameter 31.3 nm)
Concentration of small VLDL particles   mmol/l     Total lipids in small VLDL   mmol/l     Very small VLDL (average diameter 31.3 nm)
Total lipids in small VLDL mmol/l   Very small VLDL (average diameter 31.3 nm)
Concentration of very small VLDL particles mmol/I Total lipids in very small VLDL mmol/I
IDL (average diameter 28.6 nm)
Concentration of IDL particlesmmol/lTotal lipids in IDLmmol/l
Large LDL (average diameter 25.5 nm)
Concentration of large LDL particlesmmol/lTotal lipids in large LDLmmol/l
Medium LDL (average diameter 23 nm)
Concentration of medium LDL particlesmmol/lTotal lipids in medium LDLmmol/l
Small LDL (average diameter 18.7 nm)
Concentration of small LDL particlesmmol/lTotal lipids in small LDLmmol/l
Very large HDL (average diameter 14.3 nm)
Concentration of very large HDL particlesmmol/lTotal lipids in very large HDLmmol/l
Large HDL (average diameter 12.1 nm)
Concentration of large HDL particlesmmol/lTotal lipids in large HDLmmol/l

Name	Unit	
Medium HDL (average diameter 10.9 nm)		
Concentration of medium HDL particles Total lipids in medium HDL	mmol/l mmol/l	
Small HDL (average diameter 8.7 nm)		
Concentration of small HDL particles Total lipids in small HDL	mmol/l mmol/l	

If Nightingale is not able to deliver the Service Deliverables due to inability of Nightingale's Service to analyse the data with more than 20% of metabolic measures missing for a Sample, there will be no charge for the respective Sample.