

Neonatal Blood Gas Reference Ranges

January 2019

Neonatal Blood Gas Reference Ranges						
Sample Type	Cord Arterial	Cord Venous	Capillary	Arterial	Venous	Unit
pH	7.2 – 7.4	7.25 – 7.45	7.32 – 7.42	7.35 – 7.45	7.30 – 7.40	
pCO ₂	35 – 70	30 – 55	35 – 45	35 – 45	35 – 50	mmHg
pO ₂	Not Reported	Not Reported	Not Reported	70 – 90	30 – 50	mmHg
HCO ₃	17 – 27	16 – 25	20 – 27	20 – 27	20 – 27	mmol/L
Base Excess (BE)	-9 to 2	-10 to 0	-6 to 1	-4 to 1	-4 to 1	mmol/L
Total Hemoglobin (tHb)			As per hematology reference intervals	As per hematology reference intervals	As per hematology reference intervals	g/L
O ₂ Sat	Not Reported	Not Reported	92 – 96	90 – 100	50 – 80	%
O ₂ Hb			85 – 95	92 – 98	50 – 80	
Carboxyhemoglobin (COHb)			0 – 3	0 – 3	0 – 3	%
Methemoglobin (MetHb)			0 – 2	0 – 1.5	0 – 1.5	%

For more information, contact:
 Health Profession Strategy & Practice
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