

ST. JAMES'S HOSPITAL LABMED DIRECTORATE

Edition No.:	05	Biochemistry	Doc No: WI-BIO-0227
Authorised By	Collette Collison	Date: 24.09.2020	Date of Issue: 29.09.2020

Serum Indices

Analyte	Direction			Interference		
	Conj. Bili. Interference	Haemolysis interference	Lipaemic Interference	Icteric Index as conj Bilirubin (SI units)	Haemolytic Index as Hb (SI units)	Lipaemic Index as Intralipid (without units)
ACTH	n/a	n/a	n/a	μmol/l	μmol/l	Turbidity
Albumin	↔	↔	↓	428	250	1500
Alkaline phosphatase	↓	↓	↔	1026	621	550
ALT	↓	↓↑	↔	1025	124	2000
AFP	n/a	n/a	n/a	1026	56	150
Amikacin	↔	↔	↔	1112	1400	1500
Amylase	↔	↔	↔	855	621	2000
AMH	n/a	n/a	n/a	1026	310	1500
AST	↔	↑	↔	1129	621	1000
Bicarbonate	↔	↓	↔	1026	26	150
Calcitonin	n/a	n/a	n/a	1026	373	1800
Calcium	↔	↔	↔	1128	124	2000
Carbamazepine	↔	↔	↔	1026	621	1000
Ca 125	n/a	n/a	n/a	855	621	2000
CA 15-3	n/a	n/a	n/a	1129	2000	2000
CA 19.9	n/a	n/a	n/a	1112	1900	1900
CEA	n/a	n/a	n/a	1129	1500	1400
Chloride	↔	↔	↔	1129	1400	1500
Cholesterol	↓	↑	↔	1026	621	2000
Cholinesterase	↔	↑	↔	274	435	2000
Conjugated Bilirubin	n/a	↓	↔	1026	435	1000
Coritsol	n/a	n/a	n/a	NA	25	750
C-PEP	n/a	n/a	n/a	428	311	1500
Creatine kinase	↔	↑	↔	855	186	2000
Creatinine (Enzymatic)	↓	↔	↔	1026	62*	1000
Crosslap	n/a	n/a	n/a	1026	497	2000
CRP	↔	↓	↔	1025	600	1500
Digoxin	↔	↔	↔	1026	622	1000
E2	n/a	n/a	n/a	1129	621	1500
Ethanol	↓	↔	↓	1129	621	1000
FT4	n/a	n/a	n/a	1026	124	500
FPSA	n/a	n/a	n/a	701	621	2000
FSH	n/a	n/a	n/a	1112	621	1500
Cedia Gentamicin	↔	↔	↓	1900	621	1900
GGT	↔	↓	↔	1026	621	1000
Glucose	↔	↔	↔	855	124	700
HCG	n/a	n/a	n/a	1026	621	1000
HDLC	↑	↔	↔	410	621	1400
INS	n/a	n/a	n/a	513	745	1800
Iron	↔	↑	↔	1800	15*	1539
Lactate dehydrogenase	↔	↑	↓	1026	125	1500
LH	n/a	n/a	n/a	1025	10	1000
Lithium	↑	↑	↔	1129	621	1900
Magnesium	↔	↑	↔	633	621	2000
Osteocalcin	n/a	n/a	n/a	1026	496	2000
PINP	n/a	n/a	n/a	1112	15	1500
Paracetamol	**	**	**	1025	62	2000
Phenytoin	↔	↔	↓	1025	93*	150
Phosphate	↑	↑	↑	855	621	800
Potassium	↔	↑	↔	684	186	800
Pro BNP	n/a	n/a	n/a	1026	54**	2000
Prolactin	n/a	n/a	n/a	428	621	1500
Progesterone	n/a	n/a	n/a	513	932	1500
PTH	n/a	n/a	n/a	923	621	200
SACE	n/a	n/a	n/a	1112	93	1500
Salicylate	↔	↔	↓	600	77	125
Sodium	↔	↔	↔	393	497	200
T3	n/a	n/a	n/a	1026	621	2000
Theophylline	↔	↔	↓	599	1200	1800
Troponin T (HS)	n/a	↓	n/a	855	621	300
Total bilirubin	n/a	↓	↓	428	62***	1500

↑ Over-recovery
↓ Under-recovery
↓↑ Variable recovery
↔ recovery within 10% of initial conc.
* Results may be available at lower levels of haemolysis.
** Difficult to determine exact extent of inference. Could lead to overestimation or underestimation

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Total protein	↓	↔	↔	342	311	2000
Triglyceride	↓	↑	n/a	171	434	NA
TSH	n/a	n/a	n/a	701	621	1500
TPSA	n/a	n/a	n/a	1112	1400	1500
TT4	n/a	n/a	n/a	633	1400	2500
UIBC	↓	↑	↔	1026	25	300
Urate	↓	↔	↔	684	621	1500
Urea	↔	↔	↔	1026	621	1000
Valproate	↔	↔	↓	513	311	500
Vancomycin	↔	↔	↔	1026	622	1000

Mild Haemolysis

If the tests requested are affected by haemolysis levels ≥ 10 but ≤ 49 then the sample is considered to have Mild haemolysis. All results will be available but it is advisable to interpret AST, LDH, UIBC and DBIL with caution.

Moderate Haemolysis

If the tests requested are affected by haemolysis levels ≥ 50 but ≤ 99 then the sample is considered to have Moderate haemolysis. Results will not be available for AST, LDH, UIBC or DBIL. Results for Potassium, Troponin T (HS) and CK can also be affected by this level of haemolysis but WILL BE reported.

Severe Haemolysis

If the tests requested are affected by haemolysis levels ≥ 100 then the sample is considered to have Severe haemolysis. All tests will be NA'ed at their appropriate level, as per table above.

***Paracetamol**

Haemolysis has a variable impact on Paracetamol levels that could lead to an overestimation or underestimation of specific laboratory results. It is difficult to determine the exact extend of interference. Paracetamol will therefore be reported at three different levels only. It is important to emphasise that these values are a rough guideline only and a repeat sample for paracetamol is strongly advised.

Paracetamol Result:	Reported as:
<5 mg/L	<5 mg/L
5-29 mg/L	<30 mg/L
≥ 30 mg/L	>29 mg/L

**** Potassium**

Haemolysis can cause a positive interference in the analysis of serum potassium (K), thus causing a potential overestimation of the result. Please note that in moderately haemolysed samples Potassium above the ref range will only be reported as >5.3 mmol/ L. Similarly, Potassium results in haemolysed samples below the reference range will be reported only as either <3.5 mmol/L or <3.0 mmol/L, as appropriate.

*****Troponin T (HS)**

Haemolysis can produce a negative interference in the analysis of plasma Troponin T (HS) thus causing a potential underestimation of the actual result. Therefore please note that while a result for Troponin T (HS) will be reported in a moderately haemolysed sample, this may not represent the true value for that sample and the taking of a repeat sample for plasma Troponin T (HS) is strongly advised. Any Troponin T(HS) result ≤ 14 ng/L in a moderately haemolysed sample WILL NOT be reported due to the risk of underestimation.