

**SJH CENTRE FOR LABORATORY MEDICINE & MOLECULAR PATHOLOGY**

<b>Edition No.:</b>	08	<b>Biochemistry</b>	<b>Doc No:</b> WI-BIO-0227
<b>Authorised By</b>	Fiona Campbell	<b>Date:</b> 04.09.24	<b>Date of Issue:</b> 04.09.24

**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)
				µmol/l	µmol/l	Turbidity
ACTH	n/a	n/a	n/a	428	250	1500
Albumin	↔	↔	↓	1026	621	550
Alkaline phosphatase	↓	↓	↔	1026	124	2000
ALT	↓	↓↑	↔	1026	56	150
AFP	n/a	n/a	n/a	1112	1400	1500
Amikacin	↔	↔	↔	855	621	2000
Amylase	↔	↔	↔	1026	310	1500
AMH	n/a	n/a	n/a	1129	621	1000
AST	↔	↑	↔	1026	26	150
Bicarbonate	↔	↓	↔	1026	373	1800
Calcitonin	n/a	n/a	n/a	1128	124	2000
Calcium	↔	↔	↔	1026	621	1000
Carbamazepine	↔	↔	↔	855	621	2000
Ca 125	n/a	n/a	n/a	1129	2000	2000
CA 15-3	n/a	n/a	n/a	1130	621	1500
CA 19.9	n/a	n/a	n/a	1129	621	1500
CEA	n/a	n/a	n/a	1129	621	2000
Chloride	↔	↔	↔	1026	621	2000
Cholesterol	↓	↑	↔	274	435	2000
Cholinesterase	↔	↑	↔	1026	435	1000
Conjugated Bilirubin	n/a	↓	↔	NA	16	750
Coritsol	n/a	n/a	n/a	428	311	1500
C-PEP	n/a	n/a	n/a	855	186	2000
Creatine kinase	↔	↑	↔	1026	62*	1000
Creatinine (Enzymatic)	↓	↔	↔	342	497	2000
Crosslap	n/a	n/a	n/a	1112	300	1500
CRP	↔	↓	↔	1026	622	1000
Cystatin C	n/a	n/a	n/a	1026	620	1000
Digoxin	↔	↔	↔	1129	621	1500
E2	n/a	n/a	n/a	1129	621	1000
Ethanol	↓	↔	↓	1026	124	500
FT4	n/a	n/a	n/a	701	621	2000
FPSA	n/a	n/a	n/a	1112	621	1500
FSH	n/a	n/a	n/a	1112	621	1900
Cedia Gentamicin	↔	↔	↓	512	373	1000
GGT	↔	↓	↔	855	124	700
Glucose	↔	↔	↔	1026	621	1000
HCG	n/a	n/a	n/a	1129	621	2000
HDLC	↑	↔	↔	1026	745	1200*
INS	n/a	n/a	n/a	1539	15*	1800
Iron	↔	↑	↔	1026	125	1500
Lactate dehydrogenase	↔	↑	↓	1026	10*	900
LH	n/a	n/a	n/a	1129	621	1900
Lithium	↑	↑	↔	735	621	2000
LP(a)	n/a	n/a	n/a	1026	620	2000
Magnesium	↔	↑	↔	1026	496	2000
Osteocalcin	n/a	n/a	n/a	1112	15	1500
P1NP	n/a	n/a	n/a	1112	62	2000
Paracetamol @50mg/L	**	**	**	427	93	1200
Phenytoin	↔	↔	↓	855	621	800
Phosphate	↑	↑	↑	684	186	800
Potassium	↔	↑	↔	1026	54*	2000
Pro BNP	n/a	n/a	n/a	428	621	1500
Prolactin	n/a	n/a	n/a	513	932	1500
Progesterone	n/a	n/a	n/a	923	621	200
Procalcitonin	n/a	n/a	n/a	685	559	1500
PTH	n/a	n/a	n/a	1129	155	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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## 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)
				µmol/l	µmol/l	Turbidity
SACE	n/a	n/a	n/a	600	77	125
Salicylate @30 mg/dL	↔		↓	393	621	1000
Sodium	↔	↔	↔	1026	621	2000
T3	n/a	n/a	n/a	599	1200	1800
Theophylline	↔	↔	↓	855	621	300
Troponin T (HS)	n/a	↓	n/a	428	62*	1500
Total bilirubin	n/a	↓	↓	NA	497	1000
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
Vit D	n/a	n/a	n/a	1129	373	300

\* Native triglycerides

### Haemolysis

Haemolysed sample. Please note that if a sample exceeds a specific Haemolysis level then results of affected tests are reported NA, as per the table above

The following exceptions apply:

#### \*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

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## Serum Indices

### \*\* Potassium (K<sup>+</sup>)

Haemolysis can cause a positive interference in the analysis of Potassium, thus causing a potential overestimation of the result. Please note that for samples with H index of  $50 \geq$  and  $\leq 99$  Potassium above the ref range will only be reported as  $>5.3\text{mmol/L}$ . Similarly, Potassium results in haemolysed samples below the reference range will be reported only as either  $<3.5\text{mmol/L}$  or  $<3.0\text{mmol/L}$ , as appropriate (ref CDC reference tool for Haemolysis status).

### \*\*\*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 sample with H index of  $\leq 99$ , 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  $\leq 14\text{ng/L}$  in samples with H index of  $\geq 61$  WILL NOT be reported due to the risk of underestimation.