

Supplementary table 1. Allowable total error (and source of the analytical performance specification) applied to each parameter measured in Alinity c systems

Parameter	Alinity c1		Alinity c2		Alinity c3		Alinity c4	
	TEa	Source	TEa	Source	TEa	Source	TEa	Source
Albumin	8.25	p90 SEQC	8.25	p90 SEQC	8.25	p90 SEQC	8.25	p90 SEQC
AP	15.60	EFLM min	15.60	EFLM min	15.60	EFLM min	15.60	EFLM min
ALT	18.70	EFLM des	18.70	EFLM des	18.70	EFLM des	18.70	EFLM des
Amylase	na	na	5.90	EFLM opt	5.90	EFLM opt	na	na
AST	12.40	EFLM des	na	na	12.40	EFLM des	12.40	EFLM des
Calcium	9.10	MCS	9.10	MCS	9.10	MCS	9.10	MCS
Cholesterol	na	na	8.30	EFLM des	8.30	EFLM des	8.30	EFLM des
Chloride	6.00	MCS	6.00	MCS	6.00	MCS	na	na
CK	na	na	8.50	p90 SEQC	8.50	p90 SEQC	8.50	p90 SEQC
Creatinine	11.70	EFLM min	11.70	EFLM min	11.70	EFLM min	11.70	EFLM min
D Bil	15.61	p90 SEQC	na	na	15.61	p90 SEQC	na	na
GGT	9.20	EFLM opt	9.20	EFLM opt	9.20	EFLM opt	9.20	EFLM opt
Glucose	6.10	EFLM des	6.10	EFLM des	6.10	EFLM des	6.10	EFLM des
HDL	na	na	na	na	na	na	14.90	EFLM min
LD	10.20	EFLM min	na	na	10.20	EFLM min	10.20	EFLM min
Magnesium	9.40	MCS	na	na	9.40	MCS	9.40	MCS
CRP	12.00	MCS	12.00	MCS	12.00	MCS	12.00	MCS
Potassium	7.30	EFLM min	7.30	EFLM min	7.30	EFLM min	na	na
Sodium	3.20	MCS	3.20	MCS	3.20	MCS	na	na
T Bil	24.60	EFLM des	24.60	EFLM des	24.60	EFLM des	24.60	EFLM des
Total Protein	4.90	EFLM min	4.90	EFLM min	4.90	EFLM min	4.90	EFLM min
Triglyceride	12.90	EFLM opt	na	na	12.90	EFLM opt	12.90	EFLM opt
Urea	17.10	EFLM des	17.10	EFLM des	17.10	EFLM des	17.10	EFLM des
Uric Acid	na	na	6.30	EFLM opt	6.30	EFLM opt	na	na
Albumin U	na	na	9.20	p90 SEQC	na	na	na	na
Calcium U	na	na	16.00	MCS	na	na	na	na
Creatinine U	13.00	MCS	13.00	MCS	na	na	na	na
Glucose U	na	na	8.40	MCS	na	na	na	na
Phos U	na	na	11.00	MCS	na	na	na	na
Potassium U	8.60	MCS	8.60	MCS	na	na	na	na
Sodium U	7.20	MCS	7.20	SOTA	na	-	na	-
Urea U	13.00	MCS	13.00	SOTA	na	-	na	-

AP: alkaline phosphatase; ALT: alanine aminotransferase; AST: aspartate aminotransferase; CK: creatine kinase; CRP: C-reactive protein; D Bil: direct bilirubin; EFLM des: desirable analytical performance specification (APS) according to the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) biological variation database (10); EFLM min: minimum APS

according to the EFLM biological variation database (10); EFLM opt: optimal APS according to the EFLM biological variation database (10); HDL: high density lipoprotein; LD: lactate dehydrogenase; GGT: gamma-glutamyl transferase; MCS: Spanish minimum consensus specification, based on state-of-the-art performance (12); p90 SEQC: 90th percentile of measurement errors provided by the Spanish Society of Laboratory Medicine (SEQC^{ML}) from the external quality assessment schemes, used as a state-of-the-art APS; Phos: phosphorus; QCP: quality control plan; SOTA: state-of-the-art; T Bil: total bilirubin; TEa: allowable total error; U: urine; na: not available.

Supplementary table 2. Allowable total error (and source of the analytical performance specification) applied to each parameter measured in Cobas Pro systems

Parameter	Cobas 1		Cobas 2	
	TEa	Source	TEa	Source
NT-proBNP	19.5	Ricós min	19.5	Ricós min
Procalcitonin	31.5	p90 SEQC	31.5	p90 SEQC
Troponin T	17.6	EFLM des	17.6	EFLM des

EFLM des: desirable analytical performance specification (APS) according to the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) biological variation data base (10); p90 SEQC: 90th percentile of measurement errors provided by the Spanish Society of Laboratory Medicine (SEQC^{ML}) from the external quality assessment schemes, used as a state-of-the-art performance specification; NT-proBNP: N-terminal pro brain natriuretic peptide; QCP: quality control plan; Ricós min: minimum APS based on the biological variation proposed by Ricós *et al* (11); TEa: allowable total error.