

義大醫療 醫學檢驗部/檢驗科 公告 (2024年3月)

一、公告義大癌治療醫院檢驗科定量檢驗項目之量測不確定度

依據 ISO15189 實驗室認證規範執行之。

- 1.量測不確定度(Uncertainty of Measurement, MU)：係指一量測結果的分散程度、可能誤差或可能存在的範圍區間。
- 2.依據 ISO15189 實驗室認證規範要求，實驗室應提供使用者量測不確定度之估計值，以幫助使用者評鑑檢驗可信度或影響報告結果。醫學檢驗部定量檢驗項目之量測不確定度如附件。
- 3.範例：

實驗室 Glucose 之兩品管濃度平均值分別為 86 mg/dL 與 285 mg/dL，公告之量測不確定度估計值分別為 2.2% (1.9 mg/dL)及 2.4% (6.84 mg/dL)。若有病人空腹血糖數值為 129 mg/dL，則病人真正結果可能落在 127.1 – 130.9 mg/dL ($129 \pm 2.2\%$)之間；若有血糖數值為 328 mg/dL，病人真正結果可能落在 320.1 – 335.9 mg/dL ($328 \pm 2.4\%$)之間。

癌治療醫院檢驗科 定量檢驗量測不確定度一覽表(血液/血凝)

公告日期：2024 年 03 月

表單編號：LL-Q062/02-C

	檢驗項目	目標值	量測不 確定度	量測不確定 度估算值		檢驗項目	目標值	量測不 確定度	量測不確定 度估算值
1	WBC	3.02	4.6%	2.88~3.16	12	NEUT%	38.27	6.0%	35.97~40.57
		6.86	3.0%	6.65~7.07			43.14	4.8%	41.07~45.21
		16.36	2.0%	16.03~16.69			47.30	4.0%	45.41~49.19
2	RBC	2.26	1.8%	2.22~2.3	13	LYMPH%	34.35	6.8%	32.01~36.69
		4.27	1.4%	4.21~4.33			28.70	5.2%	27.21~30.19
		4.94	1.2%	4.88~5			24.07	5.0%	22.87~25.27
3	HGB	5.85	1.8%	5.74~5.96	14	MONO%	13.15	2.6%	12.81~13.49
		12.39	1.2%	12.24~12.54			12.81	9.4%	11.61~14.01
		15.62	1.0%	15.46~15.78			12.52	9.4%	11.34~13.7
4	HCT	16.93	3.0%	16.42~17.44	15	EO%	9.45	14.0%	8.13~10.77
		35.59	2.0%	34.88~36.3			10.53	14.2%	9.03~12.03
		43.99	2.0%	43.11~44.87			11.29	14.8%	9.62~12.96
5	MCV	74.97	2.2%	73.32~76.62	16	BASO%	4.77	7.6%	4.41~5.13
		83.36	1.4%	82.19~84.53			4.82	5.4%	4.56~5.08
		89.01	1.6%	87.59~90.43			4.82	4.6%	4.6~5.04
6	MCH	25.91	2.4%	25.29~26.53	17	NRBC#	0.16	12.6%	0.14~0.18
		29.00	1.6%	28.54~29.46			0.42	9.6%	0.38~0.46
		31.60	1.4%	31.16~32.04			1.10	7.2%	1.02~1.18
7	MCHC	34.54	3.2%	33.43~35.65	18	MPV	8.74	6.4%	8.18~9.3
		34.79	0.7%	34.56~35.02			10.15	4.4%	9.7~10.6
		35.51	2.0%	34.8~36.22			9.91	2.2%	9.69~10.13
8	PLT	90.66	13.4%	78.51~102.81	19	PDW	6.56	8.2%	6.02~7.1
		257.06	8.2%	235.98~278.14			9.24	4.8%	8.8~9.68
		588.82	4.2%	564.09~613.55			9.55	3.8%	9.19~9.91
9	RDW-SD	46.68	2.2%	45.65~47.71	20	PCT	0.08	15.6%	0.07~0.09
		49.75	2.0%	48.76~50.75			0.26	11.4%	0.23~0.29
		46.78	1.8%	45.94~47.62			0.58	6.2%	0.55~0.62
10	RDW-CV	17.70	2.0%	17.35~18.05	21	HbA1c%	5.19	3.8%	4.99~5.39
		16.99	1.8%	16.68~17.3			10.07	1.8%	9.89~10.25
		14.87	1.4%	14.66~15.08			10.61	1.9%	10.41~10.81
11	RET%	5.61	5.8%	5.28~5.94	22	PT	28.70	3.3%	27.76~29.64
		2.24	7.2%	2.08~2.4			26.87	1.7%	26.42~27.32
		1.22	9.8%	1.1~1.34			50.74	2.4%	49.5~51.98

癌治療醫院檢驗科 定量檢驗量測不確定度一覽表(生化/血液氣體分析)

公告日期：2024 年 03 月

表單編號：LL-Q062/02-C

	檢驗項目	目標值	量測不 確定度	量測不確定 度估算值		檢驗項目	目標值	量測不 確定度	量測不確定 度估算值
1	Total Protein	4.05	2.6%	3.95~4.16	22	Chloride (Cl)	76.51	3.6%	73.76~79.26
		6.69	2.2%	6.54~6.83			122.01	3.0%	118.35~125.67
2	Albumin	2.61	2.6%	2.54~2.68	23	Lipase	20.17	10.4%	18.07~22.27
		4.45	2.8%	4.32~4.57			124.40	8.6%	113.7~135.1
3	BUN	14.76	2.4%	14.41~15.12	24	LDH	115.41	5.4%	109.18~121.64
		69.70	2.2%	68.17~71.23			397.80	5.0%	377.91~417.69
4	Creatinine	0.67	6.6%	0.63~0.72	25	CRP	1.69	4.2%	1.62~1.76
		5.73	3.4%	5.53~5.92			2.48	3.4%	2.4~2.57
5	UA	3.45	4.4%	3.3~3.6	26	LAC	12.63	3.6%	12.18~13.09
		9.86	3.6%	9.5~10.21			51.47	3.4%	49.72~53.22
6	Total Bilirubin	0.59	4.2%	0.57~0.62	27	NH3	59.27	7.8%	54.65~63.89
		6.66	2.8%	6.48~6.85			203.28	3.6%	195.96~210.6
7	Direct Bilirubin	0.23	11.6%	0.21~0.26	28	PH	6.902	0.14%	6.89~6.91
		2.16	6.8%	2.01~2.31			7.411	0.28%	7.39~7.43
8	TG	96.05	2.2%	93.94~98.16	29	PCO2	8.075	0.26%	8.05~8.1
		226.91	1.6%	223.28~230.54			7.310	0.10%	7.3~7.32
9	Total Cholesterol	109.21	2.0%	107.03~111.39	29	PCO2	66.02	1.90%	64.77~67.27
		281.18	1.6%	276.68~285.68			32.88	5.60%	31.04~34.72
10	HDL	19.36	5.6%	18.28~20.44	30	PO2	31.07	2.94%	30.16~31.98
		47.29	4.6%	45.11~49.47			22.03	1.64%	21.67~22.39
11	LDL	66.60	2.2%	65.13~68.07	30	PO2	111.93	2.80%	108.8~115.06
		168.80	2.2%	165.09~172.51			177.73	4.72%	169.34~186.12
12	Calcium	5.78	5.2%	5.48~6.08	31	Na	6.36	26.48%	4.68~8.04
		13.50	3.4%	13.04~13.96			104.9	0.94%	103.91~105.89
13	Phosphorous	1.69	8.2%	1.55~1.83	31	Na	150.2	1.42%	148.07~152.33
		6.96	5.8%	6.56~7.36			163.1	0.68%	161.99~164.21
14	GOT	41.43	3.8%	39.85~43	32	K	7.03	1.46%	6.93~7.13
		233.52	3.0%	226.51~240.52			2.00	0.80%	1.98~2.02
15	GPT	24.35	5.4%	23.04~25.66	32	K	4.35	2.34%	4.25~4.45
		176.04	3.2%	170.41~181.67			14.25	1.16%	14.08~14.42
16	r-GTP	26.53	4.2%	25.42~27.64	33	iCa	1.80	1.66%	1.77~1.83
		132.43	3.0%	128.46~136.4			0.80	3.00%	0.78~0.82
17	CK	74.77	4.8%	71.18~78.36	33	iCa	1.24	1.60%	1.22~1.26
		620.49	3.6%	598.15~642.83			46.1	1.12%	45.58~46.62
18	ALK-P	87.31	6.4%	81.72~92.9	34	Cl	85.7	1.44%	84.47~86.93
		639.48	4.8%	608.78~670.18			135.9	0.98%	134.57~137.23
19	Glucose	62.01	2.6%	60.4~63.62	35	tHb	14.57	0.62%	14.48~14.66
		361.78	2.2%	353.82~369.74			7.40	0.00%	7.4~7.4
20	Sodium (Na)	118.56	1.2%	117.14~119.98	36	COHb	2.4	3.36%	2.32~2.48
		159.85	1.2%	157.93~161.77			4.6	2.20%	4.5~4.7
21	Potassium (K)	2.48	3.2%	2.4~2.56					
		7.71	1.2%	7.62~7.8					

癌治療醫院檢驗科 定量檢驗量測不確定度一覽表(免疫)

公告日期：2024 年 03 月

表單編號：LL-Q062/02-C

	檢驗項目	目標值	量測不 確定度	量測不確定 度估算值		檢驗項目	目標值	量測不 確定度	量測不確定 度估算值
1	AFP	4.314	6.4%	4.038~4.59	9	_HBsAg	0.258	0.0974	0.233~0.283
		70.904	5.0%	67.359~74.449			3.530	0.18	2.895~4.165
		197.640	5.2%	187.363~207.917			0.030	0.12	0.026~0.034
2	CEA	2.179	8.6%	1.992~2.366	10	Anti-HBs	15.950	0.13	13.877~18.024
		16.463	6.6%	15.376~17.55			85.760	0.116	75.812~95.708
		43.911	6.8%	40.925~46.897			0.090	0.007	0.089~0.091
3	CA199	18.577	10.0%	16.719~20.435	11	Anti-HCV	5.260	0.11	4.681~5.839
		45.197	8.4%	41.4~48.994			4.842	0.068	4.512~5.171
		75.931	7.8%	70.008~81.854			10.499	0.082	9.638~11.36
4	Total PSA	0.628	8.0%	0.578~0.678	12	CK-MB	36.282	0.084	33.234~39.33
		3.174	8.4%	2.907~3.441			0.100	50.0%	0.05~0.15
		21.305	8.8%	19.43~23.18			2.056	8.6%	1.879~2.233
5	CA125	18.577	10.0%	16.719~20.435	13	SCC	50.500	6.8%	47.066~53.934
		45.197	8.4%	41.4~48.994			10.431	15.0%	8.866~11.996
		75.931	7.8%	70.008~81.854			38.736	9.0%	35.25~42.222
6	Free T4	0.533	10.6%	0.477~0.589	14	CA 15-3	67.840	6.6%	63.363~72.317
		1.384	6.4%	1.295~1.473			80.085	20.6%	63.587~96.583
		2.240	10.6%	2.003~2.477			446.995	18.6%	363.854~530.136
7	TSH	0.040	7.6%	0.037~0.043	15	BNP	3313.800	8.6%	3028.813~3598.787
		3.848	5.6%	3.633~4.063			8.986	15.2%	7.62~10.352
		22.411	7.0%	20.842~23.98			59.287	12.2%	52.054~66.52
8	hs TroponinI	0.011	15.8%	0.01~0.013	16	IPTH	225.860	10.8%	201.467~250.253
		0.048	8.8%	0.044~0.052			0.257	16.2%	0.215~0.299
		0.852	5.8%	0.803~0.901			167.900	13.4%	145.401~190.399