

Standardisation exercise

The suggested practical exercise described below is not a true standardisation test, however it will help you standardise the way the Hb measurements are taken and select the best Hb measurers. If you have time to conduct a standardisation test, refer to the following publication: Burger S and Pierre-Louis J. A procedure to estimate the accuracy and reliability of HemoCue™ measurements of survey workers. ILSI. 2003

Typically, a training on haemoglobin measurement will contain between 5 to 12 members. For the standardisation exercise, each trainee should take two measurements (i.e. filling out two microcuvettes from two different blood drops-blood drop #3 and #4) from two different finger sticks from a minimum of 3 fellow trainees. Use the table below to write down the results and assess the quality of the Hb measurements.

Form for standardisation exercise

Volunteer name	Assessing how good the trainee is at filling up the microcuvette								Assessing how good the trainee is at finger sticking	
	Finger 1				Finger 2				C9	C10
	C1	C2	C3	C4	C5	C6	C7	C8		
Blood drop #3	Blood drop #4	C1- C2	Potential reasons for difference $\geq (+/-) 0.5 \text{ g/dL}$	Blood drop #3	Blood drop #4	C5-C6	Potential reasons for difference $\geq (+/-) 0.5 \text{ g/dL}$	C1-C5	Potential reasons for difference $\geq (+/-) 0.5 \text{ g/dL}$	
1										
2										
3										

Example of a filled out form

Volunteer name	Assessing how good the trainee is at filling up the microcuvette								Assessing how good the trainee is at finger sticking	
	Finger 1				Finger 2				C9	C10
	C1	C2	C3	C4	C5	C6	C7	C8		
Blood drop #3	Blood drop #4	C1- C2	Potential reasons for difference \geq (+/-) 0.5 g/dL	Blood drop #3	Blood drop #4	C5-C6	Potential reasons for difference \geq (+/-) 0.5 g/dL	C1-C5	Potential reasons for difference \geq (+/-) 0.5 g/dL	
1	9.4	9.7	-0.3	-	9.7	9.3	0.4	-	-0.3	-
2	11.0	11.6	-0.6	2 nd microcuvette not completely filled	11.3	11.0	0.3	-	-0.3	-
3	10.9	12.2	-1.3	2 nd microcuvette not completely filled	11.6	11.9	-0.3	-	0.7	Squeezed finger 1 while filling microcuvette
4	12.6	12.5	0.1	-	11.8	12.4	-0.6	Air bubbles in 1 st microcuvette	0.8	Air bubbles in finger 2 microcuvette
5	10.0	12.8	-2.8	Alcohol not dry before filling 1 st microcuvette	13.3	13.0	0.3	-	-3.3	Alcohol not dry before filling microcuvette on finger 1