## **HENOCUE**®



## Identifying Infections in Rural and Remote Australia

Covering over 7.6 million kilometres of land, Australia is the 6th largest country in the world. The tyranny of distance and its corresponding poor access to health care services for people living in rural and remote communities is one of the biggest issues facing Australian medicine.<sup>1</sup>

The Australian Institute of Health Welfare estimated that a third of Australians live outside the major cities and noted that mortality rates and rates of preventable hospitalisations increase with remoteness.<sup>2</sup>

Luckily, Australian pathology is committed to making testing readily accessible to all patients through point of care testing – medical tests near the patient.

A major benefit of point of care testing (POCT) is improving access

to testing in rural and remote healthcare. POCT provides immediate access to test results that might otherwise have been hours or even days away for samples to be transported to a lab. This immediacy to medical indications allows patients who have previously been may "medevaced" (transported to receive urgent medical attention) to receive local care. This can avoid the distress of relocation and it reduces patient drop-off by generating instant results especially helpful in the management of chronic conditions.

One of the most common tests required in rural and remote hospitals is the Full Blood Count. (FBC).

The HemoCue<sup>®</sup> WBC DIFF System is one such device able to provide

a total white blood cell count and five part differential, critical in the detection of infection and antibiotic stewardship.

Pathology Queensland's POCT team have been assisting with placing numerous HemoCue<sup>®</sup> WBC DIFF System analysers into various emergency departments within rural and remote hospitals.

One such hospital based at Esk, which is approximately 104kms from Brisbane, installed a HemoCue<sup>®</sup> WBC DIFF System and within the first two weeks they had not only performed 17 tests, they prevented six patients from being transported to the nearest referral hospital for urgent medical attention at a cost of \$800 per patient, their comment was that the HemoCue<sup>®</sup> WBC DIFF System had already paid for itself within the first few weeks.

## HemoCue® WBC DIFF System

Principle	Imaging system characterising white cells that are stained, identified and counted	Storage Temp.	Analyser: 4-50 °C (39-122 °F) Microcuvettes: 15-35 °C (59-95 °F), <90% non-condensing humidity;	
Parameters	Total Leukocytes (White Blood Cells) and Differential (in absolute numbers and %) for: Neutrophils Lymphocytes Monocytes Eosinophils		short-term storage (four weeks, unopened) 4-50 °C (39-122 °F), <90% non-condensing humidity; three-month open vial stability; single-pack microcuvettes must be used within 10 minutes of opening individual pack	
	Basophils	Operating Temp.	Venous/capillary samples in EDTA: 18-30 °C (64-86 °F)	
Calibration	Factory calibrated; needs no further calibration		Capillary samples from finger stick: 18-25 °C (67-77 °F)	
Sample Material	Capillary or venous (EDTA) whole blood	Power	AC Adapter or batteries	
Measurement Range	0.3-30.0 × 10º/L (300-30000/mm³, 300-30000/µL)	Interface	Printer, keyboard, barcode reader, PC	
Measuring Time	Within 5 minutes	Data	Date, time, patient ID, lab ID,	
Sample Volume	10 µL	Management	operator ID, site ID, control ID	
Dimensions	188 × 157 × 155 mm	Connectivity	POCT1-A over Ethernet connection	
	(7,40 × 6,18 × 6,10 inches)	Quality Control	Built in "self-test"; image recognition	
Weight	1300 g (2.87 pounds) with batteries installed		software, warning for unidentified cells	

## **Three Simple Steps**



Fill microcuvette.



2 Place microcuvette into analyser.

	Patient T	est	
"Patient"			
WBC 10%	NEU	10º/L 2.8	52
5.4	4 MON EOS	2.0 0.4 0.1	
	BAS	0.0	1
×	Ð	~	
•			

**3** View results.



Radiometer Pacific Pty Ltd 1st Floor, 96 Ricketts Road, Mt Waverley VIC, Australia Toll Free 1800 247 254 www.radiometer.com.au

HemoCue has been a leader in point-of-care medical diagnostics for over 35 years. We specialise in giving healthcare providers lab-quality accuracy with results comparable to that of a clinical lab.

