

Summary of publication

Primary Care • HemoCue® WBC

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Summary of publication

A comparison of 2 White Blood Cell Count Devices to Aid Judicious Antibiotic Prescribing

Janet R. Casey and Michael E. Pichichero (2009)



A low or normal white blood cell (WBC) count is usually associated with viral illnesses. Using a WBC count in the practice reassures both the clinicians and the parents of the patients that a bacterial illness is not likely and allows more judicious prescription of antibiotics.

This study evaluated the reliability of a new point-of-care WBC count device, the HemoCue WBC system, to an automated Cell-Dyn counter in a busy pediatric practice assessing its reliability to assist in avoiding antibiotic prescribing. A total of 120 acutely ill children and potential antibiotic recipients were studied from October 2007 to March 2008. The mean WBC count was $7.4 \times 10^9/L$ and $8.1 \times 10^9/L$ for the new WBC device and the automated Cell-Dyn counter respectively. The correlation between the two devices was high ($r = 0.988$). A total of 88 children (73 %) had a low WBC count, mean

WBC $7.2 \times 10^9/L$, and did not receive antibiotics. Three (3 %) of these children had return visit within 30 days and received antibiotics. Of the 32 children (27 %) receiving antibiotics, one child (3 %) returned for a follow-up visit for the same or a related illness.

Conclusion:

A simple, quick and inexpensive point-of-care WBC count device produces similar results as achievable with a standard Cell-Dyn counter for total WBC count and may assist in judicious antibiotic prescribing.

Why choose the HemoCue® WBC System?

The HemoCue WBC system provides WBC count within three minutes.

The HemoCue WBC system is a point-of-care system that can be used on either capillary or venous blood samples. The system only requires 10 μL (1 drop) of whole blood.

HemoCue® always provides:

- Lab accurate results
- Easy to use point-of-care system
- No calibration or instrument adjustment needed

HemoCue has been a leader in point-of-care medical diagnostics for over 30 years. We specialize in giving healthcare providers lab-quality accuracy with results comparable to that of a clinical lab.

