

Summary of publication

Primary Care • HemoCue® WBC

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Summary of publication

White Blood Cell Count Can Aid Judicious Antibiotic Prescribing in Acute Upper Respiratory Infections in Children

Janet R. Casey, et. al (2003)



Fifty percent or more of children with upper respiratory infections (URIs) and nonspecific illnesses with fever receive unnecessary antibiotics. This practice may relate to diagnostic uncertainty, sociocultural and economic pressures, and a desire to meet patients' or parents' expectations. To reduce the number of antibiotic prescriptions, reduce the diagnostic uncertainty as well as provide reassurance to patients' or parents', WBC count was tested on patients with URIs and nonspecific illnesses with fever. The study was performed during 3 years on a total of 1,956 patients who visited the Elmwood Pediatric Group in Rochester, USA. Of these, 1,219 patients were excluded from the study because the clinical symptoms and medical history provided sufficient evidence to dictate antibiotic treatment decisions without testing.

For 386 patients without high fever and severe symptoms and where the parents did not seem worried, WBC were not tested and antibiotics not prescribed. For the remaining 351 patients WBC were tested: 337 (96 %) of them had a WBC count below $15 \times 10^9/L$ and 14 (4 %) had a WBC count higher than $15 \times 10^9/L$. An antibiotic was prescribed for 13 of the 14 children that had WBC $15 \times 10^9/L$ or higher.

Conclusion:

With selective use of WBC count testing near-complete avoidance of unnecessary antibiotic use can be achieved in caring for children with URI and nonspecific febrile illness without adverse outcomes.

Why choose the HemoCue® WBC System?

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

HemoCue® always provides:

- A system easy to use
- Lab accurate results
- 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.

