



Marker of Disease in Infants and Hemorrhage During Warfarin Therapy

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Each month, Dr. Nahum Kovalski reviews a handful of abstracts from, or relevant to, urgent care practices and practitioners. For the full reports, go to the source cited under each title.

A Useful Marker of Invasive Disease in Well-Appearing Febrile Infants

Key point: Procalcitonin is better than C-reactive protein and white blood cell count for predicting bacterial infection in well-appearing infants aged <3 months.

Citation: Gomez B, Mintegi S, Da Dalt L, Blazquez D, et al. Diagnostic value of procalcitonin in well-appearing young febrile infants. *Pediatrics*. 2012;130(5):815-822.

Differentiating between serious bacterial infection and minor viral illness in febrile infants is often difficult. To date, no single laboratory test or combination of tests has proven sensitive and specific enough for identifying young infants with infections that require admission and antibiotic treatment. Investigators retrospectively evaluated the diagnostic value of procalcitonin (PCT) levels in 1112 well-appearing infants (age, <3 months) who presented with fever without a source to emergency departments at seven Spanish and Italian hospitals during a 3-year period.

The infants underwent urine dipstick testing, blood and urine culture, measurement of white blood cell count, C-reactive protein, and procalcitonin levels. If indicated, lumbar puncture and stool culture were also obtained. Overall, 289 infants (26%) were diagnosed with serious bacterial infections: 264 had urinary tract infection (UTI) only, 2 had bacterial gas-

troenteritis, and 23 had invasive bacterial infections (IBIs; 22 had bacteremia with or without UTI and 1 had meningitis). In multivariate analysis, only PCT 0.5 ng/mL was significantly associated with IBI (odds ratio, 21.7). A PCT level <0.5 ng/mL reduced the probability of invasive infection to 0.5%, and a PCT level >2 ng/mL increased the probability of IBI to 19.3%.

Published in *J Watch Ped Adolesc Med*. November 28, 2012 — Peggy Sue Weintrub, MD. ■

Rates of hemorrhage during warfarin therapy for atrial fibrillation

Key point: 'Real-World' Rates of Hemorrhage Higher Than Expected for Warfarin.

Citation: Gomes T, Mamdani MM, Holbrook AM, Paterson JM, Helliings C, Juurlink DN. *CMAJ*. November 26, 2012 cmaj.121218.

Rates of major hemorrhage during warfarin therapy for atrial fibrillation are about 4% per person-year, which is higher than those observed in randomized trials, according to an observational study published in *The Canadian Medical Association Journal*.

Researchers studied the medical records of 125,000 people in who started warfarin therapy after a diagnosis of atrial fibrillation. Over a 13-year period, they found that an overall hemorrhage rate of 3.8% per person-year. The risk was highest in the first 30 days of treatment, at 11.8%. In patients with a CHADS₂ score of 4 or greater, the 30-day rate was even higher, at 16.7%.

The authors attribute the higher "real-world" rates to the strict inclusion criteria and close monitoring that are characteristic of clinical trials. ■



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