Serum CRP is not accurate enough to diagnose late-onset infection in newborn babies.

The Problem

- As a precaution, antibiotics are usually given to all babies who might have an infection.
- If there was a quicker way to diagnose infection, unnecessary use of antibiotics could be avoided.
- We investigated if serum C-reactive protein (CRP) would be a suitable test.

Methods

- Diagnostic test accuracy (DTA) review
- Reference standard: blood culture
- Index test: serum CRP level taken at the same time as culture
- Sensitivity (“true positives”)
- Specificity (“true negatives”)
- “Hypothetical cohort” of 1000 babies

Key Results

- Late-onset infection: > 3 days after birth
- 22 included studies, 2255 babies
- CRP cut-off 5-10mg/L
- Low risk of bias
- Median specificity: 0.74
- Pooled sensitivity: 0.62 (95% CI 0.50 to 0.73)

C-reactive protein for the diagnosis of late-onset infection in newborn infants: Systematic review of diagnostic test accuracy

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