



Rapid viral testing may be beneficial in the emergency department

Clinical question

How effective is rapid viral testing (RVT) for acute febrile respiratory illness in children in the emergency department (ED)?

Bottom line

In previously healthy children coming to the ED with fever and respiratory symptoms, RVT reduced the use of chest x-rays; there was a trend toward less antibiotic usage but this was not statistically significant. No effect on length of ED visits, blood or urine testing was seen.

Caveat

The combined number of participants from the few available studies was not large enough to statistically detect a significant effect of RVT on the primary outcome (antibiotic prescribing) and most of the secondary outcomes (length of ED stay, rate of ancillary tests, rate of physician visit within 2 weeks after discharge, hospital admission rate, and acceptability of nasal specimen collection sampling).

Context

Paediatric acute respiratory infections represent a significant burden on EDs and families. Most of these illnesses are due to viruses. However, investigations (radiography, blood and urine testing) to rule out bacterial infections and antibiotics are often ordered because of diagnostic uncertainties. This results in prolonged ED visits and unnecessary antibiotic use. The risk of concurrent bacterial infection has been reported to be negligible in children over 3 months of age with a confirmed viral infection. RVT in the ED may alleviate the need for precautionary testing and antibiotic use.

Cochrane Systematic Review

Doan Q et al. Rapid viral diagnosis for acute febrile respiratory illness in children in the emergency department. *Cochrane Reviews* 2009, Issue 4. Article No. CD06452. DOI: 10.1002/14651858.CD006452.pub2.

This review contains 4 studies involving 1588 participants.

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