Emergency Department Laboratory Evaluations of Fever Without Source in Children Aged 3 to 36 Months

WHAT’S KNOWN ON THIS SUBJECT: Little is known about emergency department (ED) physicians’ practice patterns in diagnostic testing of patients with fever without source (FWS) in the 3- to 36-month-old age group, particularly after introduction of the 7-valent pneumococcal conjugate vaccine.

WHAT THIS STUDY ADDS: In the majority of US ED visits for FWS among children aged 3 to 36 months, physicians ordered no tests (complete blood count, urinalysis, blood culture, radiographs, or rapid influenza). Physicians ordered a urinalysis in <50% of visits by girls with a temperature of ≥39°C.

abstract

OBJECTIVE: This article describes ordering of diagnostic tests, admission rates, and antibiotic administration among visits to US emergency departments (EDs) by children aged 3 to 36 months with fever without source (FWS).

METHODS: The 2006–2008 National Hospital Ambulatory Medical Care Survey—Emergency Department was used to identify visits by 3- to 36-month-old children with FWS. Percentages of visits that included a complete blood count (CBC), urinalysis, blood culture, radiograph, rapid influenza test, admission to hospital, and ceftriaxone and other antibiotic administration were calculated. Multivariate logistic regression was used to identify factors associated with ordering of a CBC and urinalysis.

RESULTS: No tests were ordered in 58.6% of visits for FWS. CBCs were ordered in 20.5% of visits and urinalysis in 17.4% of visits. Even among girls with a temperature of ≥39°C, urinalysis was ordered in only 40.2% of visits. Ceftriaxone was given in 7.1% and other antibiotics in 18.3% of visits; 5.2% of the children at these visits were admitted to the hospital. In multivariate analysis, increased temperature, being female, and higher median income of the patient’s zip code were associated with increased odds of having a CBC and urinalysis ordered. Being 24 to 36 months of age was associated with lower odds of receiving both a CBC and a urinalysis.

CONCLUSIONS: Most US emergency department visits for FWS among children aged 3 to 36 months, physicians do not order diagnostic tests. Being female, having a higher fever, and higher median income of the patient’s zip code were associated with ordering CBCs and urinalysis. Pediatrics 2011;128:e1368–e1375