It Doesn't Have to be EviDense

AUTHOR
Eric Biondi, MD

Department of Pediatrics, University of Rochester, Rochester, New York

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Address correspondence to Eric Biondi, MD, University of Rochester, 601 Elmwood Ave, Box 667, Rochester, NY 14642. E-mail: eric_biondi@urmc.rochester.edu

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THE COSTS OF DOING BUSINESS

Off hand, do you know how much a complete blood count costs at your hospital? Me neither. For the most part, it's possible to obtain cost data for laboratory studies and imaging from various people at your institution, but who's got the time to be doing this for every study we order while seeing patients? Here's a simple solution from a group in Belgium.

The study.

This prospective examination used a control-intervention-washout design to determine whether providing a list of prices for common laboratory and radiologic tests could decrease costs at a tertiary care adult emergency department in Belgium. The intervention was a comprehensive pricing list of common laboratory and imaging studies. Each period (control, intervention, and washout) lasted 2 months and included the same 9 emergency medicine resident providers.

The key findings.

The study included 3758 patients: 1093 in the control, 1329 in the intervention, and 1336 in the washout period. Examination costs decreased during the intervention period compared with the control period for laboratory studies (10.7%; $P = .015$) and radiology studies (33.7%; $P < .001$). When the washout period was compared with the control period, there remained a reduction in laboratory (5.0%; $P = .014$) and radiologic imaging (40.0% $P < .001$) costs. No significant differences between the intervention and washout periods were identified.

Why do we care?

It's probably not necessary to explain the importance that costs have (and will continue to have) on our work in the hospital. Particularly in pediatric hospital medicine, where we have little control over our revenue, costs are paramount. And this intervention is practically free. Might even make a good resident quality improvement project for those of you in academic settings.

The expert says …

> *"Physicians need tangible reminders that every test we perform has costs, including monetary costs. Displaying the price or charge of the test at the time of ordering is a great way to accomplish that goal. The key to any good [quality improvement] project is to have the improved process seamlessly and systematically added to our everyday workflow. We should insist that our provider order entry systems perform this function. The question will be whether*

having all of this cost information over a long period of time will create fatigue or lead to higher value care."

– Dr. Leonard Feldman; Hospitalist, Internal Medicine; Johns Hopkins Hospital

Citation: Nougon G, Muschart X, Gérard V, et al. Does offering pricing information to resident physicians in the emergency department potentially reduce laboratory and radiology costs [published online ahead of print May 20, 2014]? *Eur J Emerg Med*.

SIMILAR IN OUR DIFFERENCES

Although there may be some simple ways to cut hospital costs (segue!), standardizing evidence-based practice for common illnesses may be the Holy Grail. More important, this would allow our patients to obtain the same high-quality care across the board. One common illness for which standardized care has remained unattainable thus far is the "infant with fever" clinical conundrum. This is a long-standing issue. In fact, in the 1970s, pediatric residents identified the management of young infants as one of the most confusing clinical scenarios,[1] *and in 2004, Pantell et al demonstrated that outpatient providers manage the situation much differently than do providers in academic medical centers.*[2] *This study shows that, well, at least we're not alone.*

The study.

A national survey of all 25 pediatric inpatient departments in Israel was performed to assess the common practices for evaluating and treating febrile infants aged <61 days. Survey questions pertained to the availability of written protocols, empirical antibiotic use, and specific evaluation and admission procedures.

The key findings.

All 25 centers responded (an impressive 100% response rate). Written protocols were used in 36% of centers. Fever was defined as ≥38.0°C in 84% of centers, and some centers (28%) used more aggressive approaches for high fever magnitudes. In 68% of centers, "reported fever at home" and documented fever were considered equivalent. Mandatory hospitalization and full fever evaluation (including blood, urine, and cerebrospinal fluid cultures) of infants with fever who were ≤28 days old were performed in 88% of centers regardless of Rochester risk criteria status. In the 29- to 60-day age group, evaluation was highly variable between sites and ranged from full workup for every child to partial evaluation and discharge. A combination of ampicillin and gentamicin was the empirical therapy of choice for the vast majority of centers. No data were presented regarding length of inpatient observation.

Why do we care?

This article, surprisingly, is one of the few to examine specific variations in care for infants with fever. These data suggest that an infant seen at 1 hospital may receive a spinal tap, other laboratory work, and hospital admission, whereas the same infant at an emergency department 20 miles away would be sent home with follow-up. I imagine that the same remains true in the United States today.

Straight from the author's mouth…

"There are significant (and unexpected) differences among centers in Israel. Everybody is doing whatever they want instead of having a strict protocol for this specific group [of patients]. Israel, as well as the western world, needs new international guidelines."

– Dr Efi Bilavsky (lead author)

Citation: Yarden-Bilavsky H, Ashkenazi S, Amir J, Schlesinger Y, Bilavsky E. Fever survey highlights significant variations in how infants aged ≤60 days are evaluated and underline the need for guidelines. *Acta Paediatr.* 2014;103(4):379–385

1. Roberts KB. Young, febrile infants: a 30-year odyssey ends where it started. *JAMA*. 2004;291(10):1261–1262.
2. Pantell RH, Newman TB, Bernzweig J, et al. Management and outcomes of care of fever in early infancy. *JAMA*. 2004;291(10):1203–1212.

THESE POSTOP PATIENTS DON'T NEED NARCOTICS. DO YOURS?

I'll typically skim 200 articles or so to find the 3 that end up in this column each issue. But this month, the first article I looked at struck me as almost perfectly aligned with a concurrent discussion on the Section on Hospital Medicine Listserv regarding the use of nonnarcotic versus narcotic pain meds. And it was short, so, bonus.

The study.

This was a prospective trial to compare outpatient nonnarcotic to narcotic pain control in children status post laparoscopic appendectomy. Two surgeons in a 4-person faculty group routinely prescribed ibuprofen every 6 hours around the clock for 48 hours and then as needed along with acetaminophen every 4 hours as needed; the other 2 surgeons prescribed acetaminophen plus codeine or oxycodone every 4 as needed for pain. On average, patients were discharged 6 to 7 hours after the procedure. At the outpatient follow-up visit, parents

completed a questionnaire in which they rated their satisfaction with the pain control method and documented the days of medication use and time needed to return to normal activity.

The key findings.

Two hundred seven children (aged 2–19 years) underwent uncomplicated appendectomy during the 9-month study period. Of these, 104 (50.2%) were placed in the nonnarcotic group, and there were no demographic differences between study groups. The nonnarcotic and narcotic groups reported no difference in number of medication days (1.9–1.8; $P = .95$) and days to normal activity (4.5–5.0; $P = .92$), as well as statistically significant improvement in parental satisfaction with pain control (97%–90%; $P = .049$).

Why do we care?

Although there can be some methodologic issues with using parental questionnaires to retrospectively assess a child's pain, particularly given the unblinded nature of this study, I think the most telling finding here is that at no point in the study did a parent of a child in the nonnarcotic group request that their child be switched to narcotics.

Straight from the author's mouth…

"While it is important to remember that this study examined only one clinical scenario, it's reasonable to highlight this sort of study given the recent warnings regarding Codeine. Surgery for appendicitis can be very painful and I think we've shown that acetaminophen and NSAIDs work equally as well as regimens that include narcotics. In my experience, continuous administration of NSAIDs can provide the same pain control as opiates in many clinical instances."

– Dr Fuad Alkhoury (lead author)

Citation: Alkhoury F, Knight C, Stylianos S, et al. Prospective comparison of nonnarcotic versus narcotic outpatient oral analgesic use after laparoscopic appendectomy and early discharge. *Minim Invasive Surg*. 2014;2014:509–632

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