## Atoms



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### NEW COLLEAGUES—NEW COLUMNS

I am delighting to introduce a number of new colleagues and columns that will be appearing in ADC in the subsequent months. Because of the critical role that original research plays in the importance of ADC, we have decided to enhance the way we highlight those studies that have important clinical and public health implications. We have asked Ieuan Hughes to be responsible for commentaries. Secondly, although many of us are not fans of guidelines, they are difficult to avoid in contemporary medicine. They often provide excellent reviews of the literature. Both in the UK and US, the guideline movement continues unabated. Harry Baumer has agreed to provide us with synopses of important new guidelines. Thirdly, we recognise that although there are many challenges to improving the health and lives of children in the UK, children in many countries continue to face complex and often tragic medical and social problems. Peter Sullivan will be editing an International Health column that will highlight the problems facing children around the world. Fourthly, in a spirit of patient-centred care, Harvey Marcovitch will be overseeing a column written by parents (and adolescents) about the care that their children have received. The goal is to give patients a voice in ADC. Finally, Tim Cole and colleagues will begin to provide statistical support for the editors in the near future. Michael Healy will remain with us as Statistical Editor - Emeritus. He has been one of the real gems at ADC and I want to personally thank him for remaining with us, particularly through my transition.

# TREATMENT FOR EMPYEMA— CONTROVERSY AND LACK OF CLARITY

Increasing prevalence of a disorder coupled with evolving diagnostic and therapeutic options often leads to controversy.

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In this issue, four articles discuss contemporary issues in the management of empyema. Hillard and Satish present two case series from Bristol and Brighton, respectively. Jaffe and Cohen, in their commentary, describe video assisted thoracic surgery, while Spencer discusses diagnosis and management and the need to define appropriate outcomes measures in order to compare therapeutic options. Recently three landmark studies once again highlighted the need for randomised clinical trials.[1][2][3] Although hormone replacement therapy is not a childhood disease, 20 years of observational evidence led to the widespread practice of hormone replacement therapy for postmenopausal women. A single, well done, large RCT, has dramatically altered care. In two recent placebo-controlled RCTs, allergen-impermeable bed covers were found ineffective for adults with either asthma or rhinitis even among those subjects who were allergic to dust mites. Again, conventional wisdom was tested experimentally and found lacking.

Kaptchuk recently wrote about interpretive bias—that the interpretation of data is often subjective and can lead to erroneous conclusions.[4] He describes yet another group of biases—confirmation bias, rescue bias, auxiliary bias, mechanism bias, "time will tell" bias and orientation bias. Essentially he suggests that consumers of the research literature are more likely to read those reports that confirm their views, or certainly be less "critical" of them. In contrast, they are more likely to find fault with those papers that do not confirm their beliefs. Given the many methodologic issues with non-experimental reports, interpretive bias is far more prevalent when there are no RCTs that address a particular issue. The biases he outlines are clearly at work in our attempt to define the best treatment for empyema. We must strive to conduct more RCTs in pediatrics.

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#### **RENAL TRANSPLANTATION**

For children with end stage renal disease, renal transplantation is life transforming. Webb and colleagues review the improved prognosis for children who undergo renal transplantation, factors that influence outcome, changes in the approach to immunosuppressive therapy, and speculate about the future. Unfortunately, the UK does not fare well in comparison to much of Europe with respect to the cadaveric organ donation rate. The US has struggled with the same issue, and recently, Don Berwick, and the Institute for Healthcare Improvement, has become involved in using techniques of continuous quality improvement to enhance the cadaver donation rate.

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#### 31 FORMULA PREPARATIONS—IS THAT ENOUGH?

A few months ago I was at morning report (residents presenting cases to attendings). A young infant had been admitted to the hospital with an afebrile seizure and a serum sodium of 126. The admitting resident thought that the likely cause was a metabolic abnormality. However, on close questioning, it was discovered that the mother had been mixing the formula inappropriately with too much water. Renfrew and colleagues have searched the literature and found five recent studies that assess how 524 mothers mix formula. They point out that there are 31 different formula preparations available in the UK with a range of scoop sizes. Wouldn't it be nice if scoop size could be standardised?

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#### REFERENCES

- 1 Writing Group for the Women's Health Initiative Investigators. Risk and benefits of estrogen plus progestin in healthy postmenopausal women: principal results from the Women's Health Initiative randomized controlled trial. JAMA 2002;288:321–33.
- 2 Woodward A, Forster L, Matthews E, et al. Control of exposure to mite allergen and allergen-impermeable bed covers for adults with asthma. N Eng J Med 2003;349:225–36.
- 3 Terreehorst I, Hak E, Oosting AJ, et al. Evaluation of impermeable covers for bedding in patients with allergic rhinitis. N Eng J Med 2003;349:237–46.
- 4 Kaptchuk TJ. Effect of interpretive bias on research evidence. BMJ 2003;326:1453-5.