

## Re. “Are paediatric operations evidence based?”

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Dear Sir,

I read with interest Zani-Ruttenstock and colleagues’ paper “Are paediatric operations evidence based?” [1], it is heartening to see how far the paediatric surgical literature has progressed since Baradini et al’s paper in 1998 [2]. However, I disagree with the authors’ assertion that a “third of procedures lack sufficient evidence-based literature support” simply because no randomised controlled trial (RCT) of that procedure has been carried out.

To focus on RCTs alone as an acceptable standard of evidence is to take a very narrow view of the literature available to inform our decisions as surgeons. RCTs are not without their drawbacks, for example, they are time consuming and expensive to conduct and often produce results of limited external validity. As the authors point out, there are many additional challenges to performing RCTs in paediatric surgical procedures such as the rarity and acuity of the conditions we treat. This means that other study designs, such as case–control studies, may be far more

appropriate for the evaluation of paediatric surgical procedures.

Whilst our specialty’s literature is undoubtedly plagued by multiple case series of limited usefulness, a poorly designed, under-powered and under-recruited RCT is just as unhelpful. Any review of the evidence base in paediatric surgery should not just consider RCTs to be the “gold standard” but instead take a broader view and acknowledge that a well-constructed and executed case–control or cohort study has much to offer.

### References

1. Zani-Ruttenstock E, Zani A, Bullman E, Lapidus-Krol E, Pierro A (2015) Are paediatric operations evidence based? A prospective analysis of general surgery practice in a teaching paediatric hospital. *Pediatr Surg Int* 31:53–59
2. Baradini V, Spitz L, Pierro A (1998) Evidence-based operations in paediatric surgery. *Pediatr Surg Int* 13:331–335

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