

Practicalities of Bisphosphonate Use in UK Paediatric Tertiary Centres

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Background

- Disparity noted in service delivery between departments who prescribed IV bisphosphonates (BPs) in tertiary centre
- Issues pertinent to patient safety and hospital management
 - the need for overnight admission for the 1st infusion
 - which blood tests and when
 - monitoring for adverse events (AEs)
- We therefore decided to survey the practices of tertiary paediatric endocrinology centres to attempt to generate in the UK

Method

- Online survey was sent to all members of the British Paediatric and Adolescent Bone Group (BPABG) with 10 questions exploring how IV BPs are prescribed and monitored in their unit
- Questions included
 - choice of BP
 - blood tests pre-infusion
 - use of calcium supplementation
 - need for overnight admission after the first infusion
- We received 18 responses from 12 tertiary centres across the UK

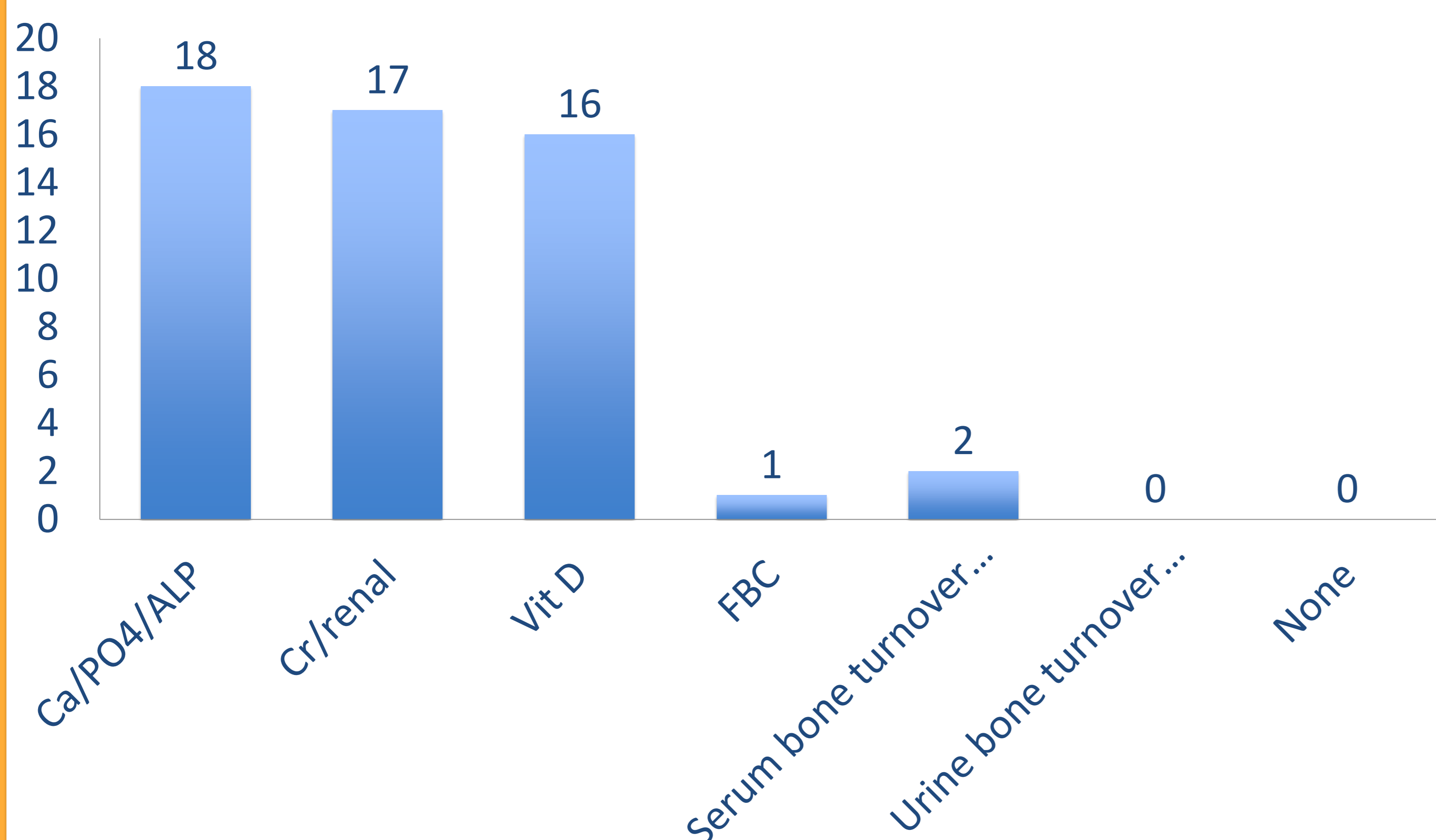
Results

- There was clear agreement regarding most aspects of BP service delivery, as well as areas of differing practices.

Consensus on

- Choice of BP** (all centres use Pamidronate, of whom 78% also use Zoledronic Acid)
- Blood tests pre-infusion** (over 89% check renal and bone profiles and vitamin D)
- Duration of infusion** (78% centres give Pamidronate over 4 hours, 82% give Zoledronic Acid over 30-60 mins)
- Calcium supplementation** (75% routinely prescribe calcium after Zoledronic Acid and 33% after Pamidronate)

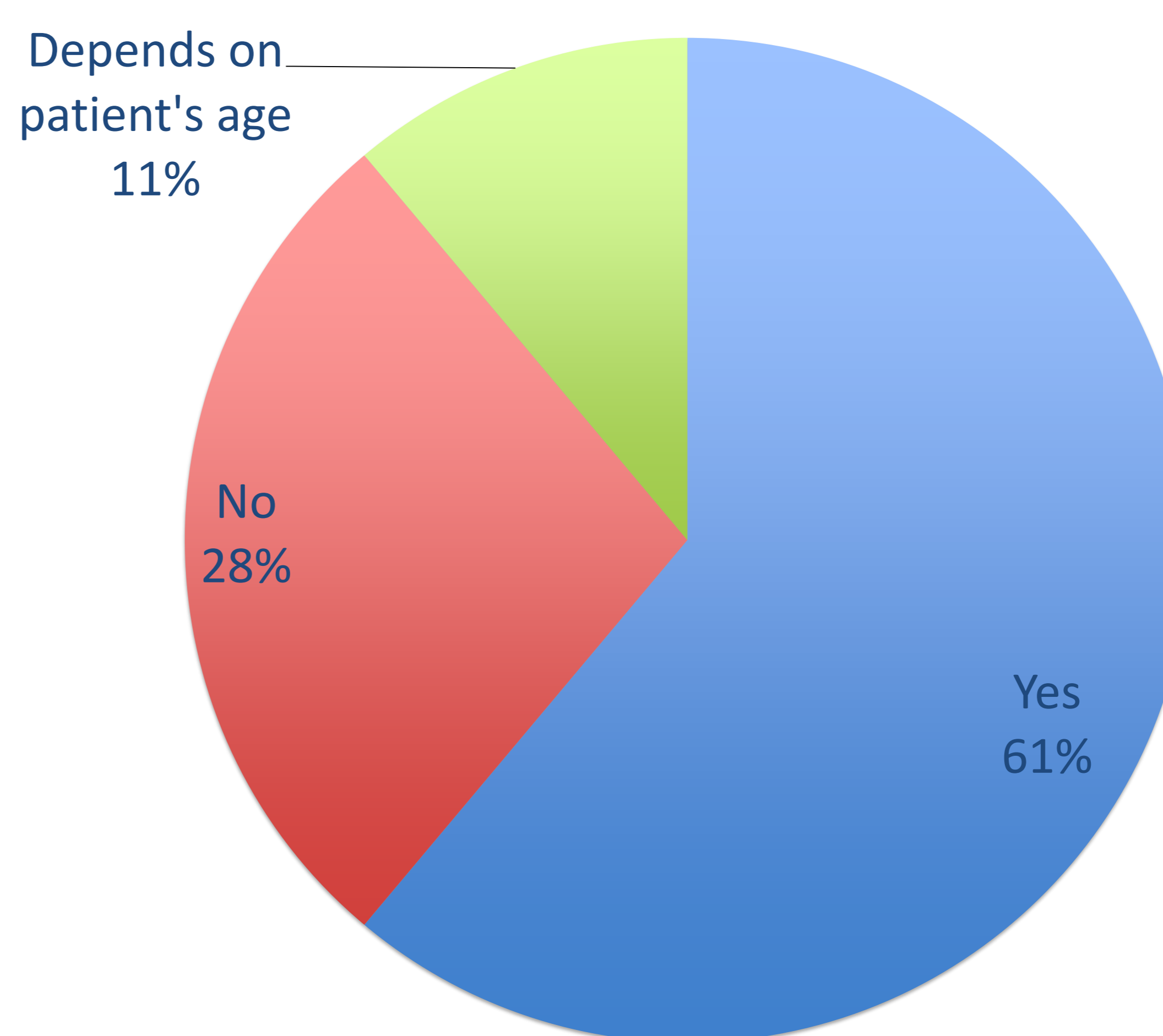
Number of responders who perform blood tests pre-infusion



Discussion regarding

- Post-infusion serum calcium monitoring** (50% do not)
- Overnight admission** (61% admit children for the first infusion, 11% admit younger children, and 28% do not routinely admit)
- Prophylactic anti-inflammatory/antipyretics** (56% do not routinely use prophylactic analgesia)

Percentage of responders who admit children for the first infusion of BP



- Discussion of survey results at the BPABG meeting indicated that anecdotal evidence of early AEs influenced practice

Conclusion

Clinical governance around prescribing IV BPs in most UK Paediatric Endocrine units is good. However, whether hospital admission is required remains a difficult issue. More evidence on occurrence, timing and severity of AEs of BPs is needed in order to generate a consensus on practicalities of their use.

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