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)

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

- Yes 61%
- No 28%
- Depends on patient’s age 11%

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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.