12.05 An audit into the optimization of bone health in the paediatric CF population

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This audit looks as how the treatment provided in CUH compares to the European guidelines as well as the prevalence of osteoporosis and osteopenia. Cystic fibrosis (CF) is one of the most common life-limiting autosomal recessive disorders, with Ireland having a high incidence of CF. (1)
This study is a cross-sectional prospective chart-review. The European CF bone mineralisation guidelines were used as a benchmark. Participants included 98 children with CF between 6 months - 16 years.
The lowest compliance was with optimal BMI (69.4% BMI >50th centile) and vitamin K supplements (91%). There was full compliance in monitored calcium intake and exercise regime. No patients required bisphosphonates or long-term steroid use. No patients reported a history of fragility fractures. The average vitamin K was 3.5 ng/ml. The average vitamin D was 77 nmol/L. The average DEXA score was 1.3 and the average age at the first DEXA scan was 10 years 3 months. The prevalence of osteopenia was 2% and no incidence of osteoporosis.
This shows that the guideline's recommendations have been implemented in CUH leading to better bone density outcomes for these patients, and a better understanding of screening practices and allocation of resources.

References:

1. HSE national clinical programme; Cystic fibrosis 2015 Cystic Fibrosis - HSE.ie accessed 12/06/2022

Conflict of Interest: None to declare