Background Vitamin D deficiency in children causes a failure of osteoid to calcify with deficient bone growth and clinical features of rickets. Vitamin D is produced by ultraviolet irradiation of inactive and avoidance of sunlight or poor oral intake in infants exclusively breastfed may contribute to the development of this pathology.

Objective To study the compliance of vitamin D supplementation in children from birth to 12 months of age and to educate and create awareness among healthcare professionals and people regarding vitamin D supplementation.

Methods In this re-audit we collected data prospectively using an anonymous structured collection form of all the children from birth to 1 year of age that attended our OPD and day cases clinics from August 2018 to January 2019. We then compared these recent results with 3 previous outcomes on a similar audit done in 2010 by our Team. The outcomes confronted are: children that received the vitamin D supplement, appropriateness and compliance to the therapy and education given to the families.

Results Majority of children 80% (40) had received Vitamin D and among those the 61.2% (30) were receiving the correct dose. In the previous audit 75% had received Vitamin D and among these 59% were receiving it correctly.

In this study the 85% of the parents were educated by healthcare providers, with a prevalence of Public Health Nurses 54.5% (31), 28% (16) by paediatricians and only 17.3% (10) by general practitioners, while in the previous results the 95% were educated by Health Care Providers.

Doctors advised to administer Vitamin D during the last visit to the clinic in only the 34.8% (16) of cases.

Conclusions The increased compliance of Vitamin D administration reflects a higher awareness of the importance of Vitamin D supplementation but the 41% of the population is still receiving a sub-optimal dose.

Recommendation Healthcare providers should give more information to the mothers and especially they should encourage Vitamin D administration at every visit.

Recommendations

- British Thoracic society guidelines should be followed properly managing patients with childhood community acquired pneumonia.
- Un-necessary Blood Cultures should not be done routinely in mild to moderate community acquired pneumonia.
- There should be regular teaching sessions on recent guidelines to keep updated all doctors working in Paediatric unit in Letterkenny General Hospital.