

advances that are available and have been made in clinical medicine, the failure to eradicate vitamin D deficiency and particularly rickets is an indictment on the health professionals' and national governments' commitment to address the problem. Perhaps now that research is suggesting that a poor vitamin D status might have consequences on the health of adults, our legislators might pay more attention to eradicating vitamin D deficiency.

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Is Single Oral Dose of 300,000 IU Vitamin D3 Adequate for Treatment of Nutritional Rickets?

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Nutritional Rickets has recently re-emerged as a problem in many countries where it was thought to have been eradicated [1]. Recent analysis shows that hospitalization rates for rickets in England are now the highest in five decades [2].

Still, many modern clinicians in developed countries have little experience or training in the management of this condition. The study published in this issue [3] is helpful in highlighting the efficacy of a simple single dose

regimen, and shows that the lower dose of 300,000 units is not inferior to double this dose. It is also important to stress that the dose is effective orally. Many children are treated with the same dose by intra-muscular injection which is painful and unnecessary. This study shows good clinical outcomes, and is in line with other clinical and pharmacokinetic studies showing effectiveness of oral Vitamin D therapy [4,5]. The practice of injecting children should stop, except for rare instances – such as

rickets associated with severe malabsorption – where even high oral doses are ineffective.

The authors comment on the risk of hypercalcaemia, but this study was not designed or powered to assess this potential side-effect of vitamin D therapy. Hypercalcemia may be due to other causes and should not prevent clinicians treating rickets with adequate doses of vitamin D and/or calcium. Also it is important to remember that after effective treatments, such as those used in this study, a satisfactory blood level of vitamin D at follow-up should not encourage clinicians or families to stop the regular low-dose prevention of doses of vitamin D which are required long-term to prevent relapse of rickets. It is my practice to recommend children diagnosed with rickets to take 1000 units of vitamin D daily to until they have finished growing, which would be more than 10 years for most of the children in this study. Appropriate vitamin D and calcium intake should be also encouraged for their siblings. That way many cases of rickets can be prevented. The financial savings in terms of blood tests,

X-rays and clinical follow-up should more than balance the cost of the vitamin D.

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