Medicines Optimisation Update
Vitamin D

Partners in improving local health

NHS Cumbria Clinical Commissioning Group

What this includes:
Management of vitamin D deficiency and insufficiency states. Looking at testing, treatment, drug choices, prevention and self-care.

Identifying the problem:
In-practice systems and ePACT searches will identify areas that require action – see suggested actions. In Cumbria 2015/16 a total of 155,000 items of vitamin D were prescribed at a cost of £645,000. 10,000 vitamin D samples were processed in North Cumbria and at the current rate of increase, the number of samples requested is predicted to double in the next 12 months.

Suggested actions

- Disseminate and promote the vitamin D guidelines around your practice - issue all clinicians with a copy of the 'Quick Guide.'
- Use ScriptSwitch® messages and make switches wherever appropriate.

Testing: (Refer to page 7 of guidance)

- Test request form – provide as much clinical detail as possible and justify why the request is being made if within 12 months
- Audit a sample of 10 patients who have had a vitamin D test in the last 6 months - did the request fall within the guidelines?

Self Care - Maintenance & Prevention (Refer to page 16 & Appendix 4, page 23 of guidance)

- Encourage patients to take responsibility for taking vitamin D as part of their nutrition. Vitamin D is widely available reasonably from pharmacies, health food shops and supermarkets (1,000 units for <3p/day).
- Birth - 4 years, pregnancy, breastfeeding and the at-risk population are recommended to supplement 400 units daily all year round and 4 years – adult in the winter months. Take the opportunity to educate patients about diet, sunlight and self care treatment.

Treatment (Refer to Appendix 3, page 22 of guidance)

- Encourage compliance with **licensed preparations**. Remove all unlicensed preparations from your in-practice formulary to minimise risk of prescribing
- Encourage the most cost-effective loading dose: **Colecalciferol 40,000 units weekly for 7 weeks is the (£10.50 for 7 capsules)**
- Note: InvitaD3® 50,000 units are more cost-effective than 2 x 25,000 units
- The following **should NOT** be prescribed . Search within your practice to identify patients on these medications for review:
    - **Calcium and ergocalciferol** – for many reasons: EXPENSIVE £400/year (vs. £35/year for calcium 1.2g + colcecalciferol 800 units); colecalciferol is the 1st line choice; it has a very low calcium component (192mg vs 1.2g in formulary choices)
    - **Liquid specials** – EXPENSIVE and UNLICENSED. Licensed alternatives available in liquid form: Invita D3® and Thorens®
    - **Colecalciferol 400 units** – UNLICENSED dose. This is a prevention dose that should be bought OTC. IF a clinical need to prescribe, then 800 units can be prescribed daily or alternate days
    - **Cacit D3® sachets** – EXPENSIVE £100/yr (vs. £50/year for Calfovit D3®); if a soluble form of calcium and vitamin D is required, prescribe Calfovit.
    - **Pro D3®** - EXPENSIVE and UNLICENSED. This costs 67p per 20,000 unit dose compared to 13p for generic colecalciferol

NECS medicines optimisation website. Available at http://medicines.necsu.nhs.uk/guidelines/cumbria-guidelines/
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Suggested actions:

Calcium Debate (Refer to page 11 & Appendix 3, page 22 of guidance)

We should assess dietary calcium more carefully and only prescribe calcium supplements in patients with an inadequate diet

- Review patients who are taking calcium, or calcium and vitamin D supplementation, and assess their dietary calcium intake – consider stopping calcium in those with adequate/high intake (though vitamin D should be continued). Now vitamin D supplements are available separately, there is an opportunity to tailor the supplementation for patients with osteopenia or osteoporosis more effectively.
- Use of an online calcium intake calculator at review: http://www.cgem.ed.ac.uk/research/rheumatological/calcium-calculator/
- **IF** calcium is required, prescribe the most cost-effective combination in a formulation that is most suited to the patient. Evacal® chewable, Accrete D3® tablets and Adcal D3 caplets are suitable. Calcichew D3 Forte® is the most expensive option – opportunity for review.
- Audit a test sample of 10 patients having been prescribed a loading dose of vitamin D to ensure that serum adjusted calcium is checked at 4 weeks after last dose.

IM Ergocalciferol

- Search for any patients on IM ergocalciferol – this now has a RED traffic light classification.

Resources:

Cumbria guidance on the management of vitamin D deficiency and insufficiency
http://medicines.necsu.nhs.uk/download/cumbria-vitamin-d-guidelines-november-2016/

Quick guide: Vitamin D Management in Adults
http://medicines.necsu.nhs.uk/download/cumbria-vitamin-d-quick-guide-november-2016/

Vitamin D Fact Sheet, produced by the UK Association of British Dieticians
https://www.bda.uk.com/foodfacts/VitaminD.pdf

References:

Vitamin D and Health: Scientific Advisory Group on Nutrition, July 2016.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/537616/SACN_Vitamin_D_and_Health_report.pdf

Vitamin D: increasing supplement use among at-risk groups. November 2014 Public Health England Guidance 56. https://www.nice.org.uk/guidance/ph56/

Vitamin D and Bone Health: A Practical Clinical Guideline for Patient Management (2013) National Osteoporosis Society https://www.nos.org.uk/document.doc?id=1352

Vitamin D and Bone Health: A Practical Clinical Guideline for Management in Children and Young People (2015) National Osteoporosis Society
https://www.nos.org.uk/document.doc?id=1989&erid=0

Vitamin D and Bone Health: GP Update handbook (Red Whale) 2016-17