Monthly Prescribing Recommendation
March 2016

Vitamin D

Your CCG supported the principle of asking GP practices to focus on monthly prescribing topics to deliver further prescribing cost efficiencies. Prescribing is a major contributor to the CCG's overall QIPP plan and the realistic ambition of financial balance. Achieving the latter is essential to qualify for the quality premium payment that can bring significant financial benefits to the CCG, and allow re-investment in primary care in subsequent years. Please note that the prescribing incentive scheme for 2015/16 awards for "agreement to and active change in prescribing as a result of the circulation of monthly prescribing topics to GP practices".

During March, we ask that practices review all patients who are currently receiving vitamin D treatments to ensure that:

- The dose prescribed is in line with the guidelines below and review patients who are on different doses / strengths of vitamin D, e.g. 2000units, 5000unit etc.
- The treatment length is appropriate, as high doses of vitamin D are usually only necessary for a short course.
- Where possible, patients are switched on to the preparations recommended below. Currently the CCG spends approximately £40k per annum on the prescribing of vitamin D. These switches would enable the CCG to make considerable savings.
- Patients are only prescribed one preparation of vitamin D at a time, and that calcium and vitamin D combination preparations are not continued when patients are started on higher doses of vitamin D.

Vitamin D Deficiency

- Vitamin D deficiency is defined as a serum vitamin D level of less than 20nanomol per litre.
- Oral therapy is either:
  - colecalciferol 10,000units daily (prescribed as **Sunvit D3 10,000units tablets**) or
  - colecalciferol 60,000units once weekly (prescribed as **Sunvit D3 20,000units tablets x3)**
- Oral therapy should be continued for 8 to 12 weeks.
- If patients experience problems with compliance or malabsorption, then 300,000units of ergocalciferol can be given by intramuscular injection once a month.
  - If ergocalciferol injection is not available, then 300,000units of colecalciferol can be given by intramuscular injection (this is an unlicensed product).
  - Intramuscular therapy should be continued for two months, i.e. 2 injections should be given.
- Vitamin D levels should be repeated after 6 months **only** if the patient is still symptomatic or if there are clinical concerns. If vitamin D levels are still low or are undetectable after this time, then the patient should be referred to an endocrinologist. (At South Tees, Dr Simon Ashwell, Consultant in Endocrinology.)

Maintenance therapy

- After receiving treatment for vitamin D deficiency, as detailed above, patients with continued high risk should be given maintenance therapy, combined with lifestyle advice regarding safe sun exposure and dietary sources of vitamin D.
  - colecalciferol 1000units daily by mouth. This may be **prescribed or purchased OTC. If prescribed, prescribe as Valupak colecalciferol 1000unit tablets, or**
  - colecalciferol 10,000units once a week by mouth**, prescribed, as Sunvit D3 10,000unit tablets.**

Vitamin D Insufficiency

- Vitamin D insufficiency is defined as a serum vitamin D level of between 20 and 60nanomol per litre.
- Insufficiency should be treated by either:
  - colecalciferol 1000units daily by mouth **(prescribe as Valupak colecalciferol 1000unit tablets) for 3 months or**
  - colecalciferol 10,000units once a week by mouth **(prescribe as Sunvit D3 10,000unit tablets) for 3 months.**
- Thereafter, patients should be given lifestyle advice regarding safe sun exposure and dietary sources of vitamin D. In addition they may purchase OTC vitamin D preparations containing 800 to 1000 units and take one daily.

Vitamin D Sufficiency

- This is defined as a serum vitamin D level of greater than 60nanomol per litre.
- Patients in this category should be given lifestyle advice regarding safe sun exposure and dietary sources of vitamin D.
- Food sources which can contribute to vitamin D status are:
  - Oily fish such as herring, sardines, mackerel, salmon and tuna.
  - Eggs and meat contain small amounts.
  - Vitamin D fortified foods such as margarines and cereals & powdered milk (check product labels).

Special groups of patients

- GP's should also consider paediatric patients and the need to treat. In some cases, referral to a paediatrician may be appropriate.
- In patients with chronic kidney disease, if the GFR is less than 30ml /min, refer to the renal physicians.
- Patients with both normocalcaemic hyperparathyroidism and vitamin D deficiency should be referred to endocrinology or chemical pathology.

Summary of Oral Therapy

Vitamin D level <20nanomol/L (Deficient)	**Vitamin D level 20 - 60nanomol/L (Insufficient)**	**Vitamin D level >60nanomol/L (Sufficient)**
Colecalciferol 10,000 units po daily **(as Sunvit D3 10,000unit tablets)** **or** Colecalciferol 60,000units po once weekly **(as Sunvit D3 tablets - 3 x 20,000 units)**	Colecalciferol 1000 units po daily **(as Valupak colecalciferol 1000unit tablets)** **or** Colecalciferol 10,000 units po once weekly **(as Sunvit D3 10,000unit tablets)**	Lifestyle advice

Points to note:

- All patients with vitamin D deficiency, insufficiency and sufficiency should be given lifestyle advice regarding vitamin D.
- 90% of the body's vitamin D requirement is obtained from ultraviolet B sunlight exposure, with only a minimal amount obtainable from food. It follows that adequate exposure to sunlight is essential for good health.
- During the summer, two or three exposures of 20 minutes (of at least the face and arms without sunscreen and not behind glass) each week should provide adequate amounts of vitamin D for most fair skinned individuals. In the UK, from October to April sun exposure is not adequate for synthesis of vitamin D and levels must be maintained by using tissue stores and dietary sources.
- **There is currently a lack of evidence to support the routine screening of vitamin D levels in general practice. It may be appropriate for all older patients to be taking vitamin D supplements without the need to test levels.**

- Many vitamin D preparations are not licensed medicines. Although expensive licensed medicines may exist, it is recognised that manufacturers of many dietary supplements do not pursue licenses as medicines. The CCG does not consider the use of licenced products for nutritional supplements to be as critical as it is for regular medications.
- Some preparations may contain peanut/soya oil. Prescribers should check product is suitable prior to prescribing in patients with allergies.
- There is now a licensed preparation of vitamin D liquid called Invita D3, containing colecalciferol, which is available in two strengths:
    - 2,400units per ml (one drop contains 67units of vitamin D)
    - 25,000units per ml (1ml ampoules).

NHS Cost of 28 tablets

Strength (units)	**Valupak colecalciferol (unlicensed)**	**Sunvit D3 (unlicensed)**	**Pro-D3 (unlicensed)**	**Generic colecalciferol**
1000units	28p	£3.56	£6.52	No set price in Drug Tariff
10,000units	-	£6.99	£13.99	No set price in Drug Tariff
20,000units	-	£4.40	£18.66	£29.00

The prescribing support team is available to help practices implement this change. HRW versions of OptimiseRx and SystmOne and EMIS formularies will be amended to incorporate this recommendation.

Should you have any queries, recommendations or ideas about these or future initiatives then we would be pleased to hear from you.

Yours sincerely,

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