Background:
In the UK, up to one quarter of people are vitamin D deficient.
This may lead to clinical consequences of vitamin D deficiency.\(^1\)
Testing of vitamin D has increased two to six fold, in the UK, leading to increased costs to the National Health Service (NHS).\(^2\)
To ensure clinical and cost effectiveness of prescribing practice NHS Greater Glasgow and Clyde (NHSGGC) issued guidance titled “Prevention and treatment of vitamin D deficiency in adults”.\(^3\)

Aim:
The aim is to evaluate the appropriateness of vitamin D level requests and prescribing within care of the elderly against NHSGGC vitamin D guidance at one NHSGGC hospital site.

Methods:
- Data were collected retrospectively, between February and April 2017, for patients newly initiated on vitamin D within care of the elderly wards at one NHSGGC hospital site.
- Data were collected on whether vitamin D level is requested and prescribed (indication, dose and preparation) in accordance to NHSGGC guidance.
- Data were analysed and standards calculated for each criterion. The achieved standard were compared to the agreed standard.
- As the project undertaken is an audit, ethics approval was not considered to be required.

Outcomes/Results:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Agreed Standard</th>
<th>Achieved Standard</th>
<th>Exceptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin D level is being requested in accordance to NHSGGC guidance</td>
<td>95%</td>
<td>50%</td>
<td>-</td>
</tr>
<tr>
<td>Indication for Vitamin D prescribing is in accordance to NHSGGC guidance</td>
<td>95%</td>
<td>92%</td>
<td>-</td>
</tr>
<tr>
<td>Vitamin D loading dose is prescribed in accordance to NHSGGC guidance</td>
<td>95%</td>
<td>0%</td>
<td>-</td>
</tr>
<tr>
<td>Vitamin D maintenance dose is prescribed in accordance to NHSGGC guidance</td>
<td>95%</td>
<td>60%</td>
<td>-</td>
</tr>
<tr>
<td>Vitamin D and calcium combination preparation used is in accordance to NHSGGC preferred formulary list</td>
<td>95%</td>
<td>20%</td>
<td>Swallowing difficulties, intolerance to preferred formulary calcium and vitamin D combination preparation</td>
</tr>
<tr>
<td>The vitamin D preparation used is in accordance to NHSGGC guidance and formulary</td>
<td>95%</td>
<td>-*</td>
<td>Allergy</td>
</tr>
</tbody>
</table>

* Unable to determine standard due to lack of information regarding colecalciferol brand supplied

Conclusions
To ensure effective prescribing and financial sustainability proposed interventions include:
- feeding back results to the guideline group, prescribers and NHSGGC laboratories
- delivering education to prescribers
- discussing the need for changing processes for vitamin D level requests

References