Use of SNOMED CT in the Swedish National Medication List

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The National Board of Health and Welfare

The Swedish eHealth Agency

Swedish Association of Local Authorities and Regions

Swedish Medical Products Agency
Background

• One **structured** medication list per citizen
• Uses include
  – Patient care
  – Pharmacy systems
  – Billing
  – Follow-up and research
• One repository with multiple clients
  – Typically EHRs
Background

- FHIR is used for communication
- Routine use starts June 1 2020-2022
Value sets for the medication list

<table>
<thead>
<tr>
<th>Medication list act</th>
<th>Standards: IDMP, EDQM, FHIR</th>
<th>Clinical requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Means of administration</td>
<td>• Route of administration</td>
<td></td>
</tr>
<tr>
<td>• Dose</td>
<td>• Administration method</td>
<td></td>
</tr>
<tr>
<td>• Reason for treatment</td>
<td>• Administration site</td>
<td></td>
</tr>
<tr>
<td>• ...</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Means of administration

ocular instillation eye left

intravenous infusion arm right infusion pump
Means of administration

- **ocular instillation** eye left
- **intravenous infusion** arm right infusion pump
- **route** method site specification medical device
Additional information

• Dose unit
• Reason for prescription
  – Existing SNOMED CT subset
## Value sets for the medication list

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<td>● Means of administration</td>
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</tr>
<tr>
<td>● ...</td>
<td></td>
<td>● Administration site specification</td>
</tr>
</tbody>
</table>

### Clinical requirements:
- Route of administration
- Administration method
- Administration site
- Administration site specification
- Medical device
- Dose unit
- Reason for prescription
EDQM and SNOMED CT

- Medicinal product data from EU MPAs will use EDQM
- EDQM has relevant terminology for
  - Route of administration
  - Administration method
  - Intended site
- ...but built for regulatory use (intended or registered use) not clinical use
  - Extension is necessary
Development process

- Virtual meetings
- Draft
- Health care requirements
- SNOMED CT coding
- Linguistic assessment
Results

- Mappings from EDQM to SNOMED CT for route of administration
- SNOMED CT was used for 6 value sets
  - Five value sets for means of administration
  - One value set for dose units
- Terms for professionals and patients
## Results

<table>
<thead>
<tr>
<th>Category</th>
<th>Total concepts</th>
<th>Added</th>
<th>Not in EDQM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route of administration</td>
<td>73</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Administration method</td>
<td>26</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Medical device</td>
<td>26</td>
<td>2</td>
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</tr>
<tr>
<td>Site</td>
<td>43</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Site specification</td>
<td>12</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Dose unit</td>
<td>58</td>
<td>15</td>
<td>-</td>
</tr>
</tbody>
</table>
Thanks!