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International

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SNOMED CT

# SNOMED CT Drug Content Analysis Project

*Hanne Fjeldstad Johansen, Norwegian Directorate of eHealth*  
*Julie James, Blue Wave Informatics*  
*Monica Harry, SNOMED International*

Thursday 26th January 2023, 20.00 UTC

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# AGENDA

1. Welcome
2. Update on work done
3. Points for discussion - process
4. Points for discussion - content
5. Adding the content to the International Edition
6. Next therapeutic area
7. Next meeting

<https://confluence.ihtsdotools.org/display/USRG/Drug+Content+Analysis+Project>

# Welcome

[snomedexpo.org](http://snomedexpo.org)



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# Rules of engagement

- Managing our discussions courteously
- Please mute your microphone when not speaking
- Please save questions till after presentations
- Post questions in the chat as the meeting progresses

# Update on work done



# DCAP to date

- The previous meetings
  - At the Lisbon SNOMED meeting
  - November teleconference
- Confluence work instructions
  - Updated as a result of feedback from the November teleconference
- Anti-infectives spreadsheet
  - Prepared by Norway
  - Work from Ireland, UK and India...so far



THANK YOU

# MP and MPF (so far)

- 87 rows of content
- 1 contributor (UK) so far in addition to Norway

<b>A</b>	<b>Have this</b> concept in national extension or MPD; <b>support</b> its inclusion
<b>B</b>	<b>Have very similar</b> concept in national extension or MPD; <b>support</b> its inclusion
<b>C</b>	<b>Do not have this</b> concept in national extension or MPD; <b>support</b> its inclusion
<b>D</b>	<b>Do not support</b> inclusion

Decision	A	B	C	D	blank
UK	27		31		29

	Notes on decision	Product References provided	Comments
UK	5	42	0

# CD (so far)

- 139 rows of content
- 2 contributors (UK & India) so far in addition to Norway

<b>A</b>	<b>Have this</b> concept in national extension or MPD; <b>support</b> its inclusion
<b>B</b>	<b>Have very similar</b> concept in national extension or MPD; <b>support</b> its inclusion
<b>C</b>	<b>Do not have this</b> concept in national extension or MPD; <b>support</b> its inclusion
<b>D</b>	<b>Do not support</b> inclusion

Decision	A	B	C	D	blank
Ireland	47	11	79	1	1
India	16	7	73	43	0

	Notes on decision	Product References provided	Comments
Ireland	19	38	31
India	51	20	24



# Points for discussion - process



# Who chose which classes

- MP/MPF: UK
- CD: Ireland, India
  
- How did it go?
  - Were there any elements in the file that might be redundant? Any that were insufficient/absent? Suggestions as to improve workflow?
- Was the amount of work about right or too much?
- Any situations where we had more references than needed....
  - So far does not seem to have happened
  - Thoughts as to how to handle? Are we satisfied with two, or should we have a “more is more” type of approach?

Those who have requested access....what are your plans....?

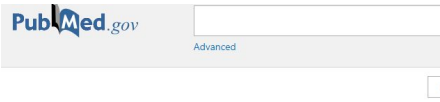
# Points for discussion - content

Just a couple of examples



# Unlicensed products

- National extensions have unlicensed product information
  - This is because unlicensed products **are** used in patient care
- Our editorial guidance requires us to have *authorised/authoritative* product information
  - This is because we need to be confident about all the attributes - especially for Clinical Drugs
- If a medicine is unlicensed in one country...it might be licensed elsewhere?
- Could/should we consider an MPF if there is sufficient support?
  - What “evidence” would be acceptable?
  - Mitomycin ocular; vancomycin ocular



Review > Expert Opin Drug Saf. 2007 Jan;6(1):27-32. doi: 10.1517/14740338.6.1.27.

Uses and complications of mitomycin C in ophthalmology






# Concentrate dose forms

- Concentrate dose forms are now included in the international content
  - <https://confluence.ihtsdotools.org/display/USRG/DEUSG+Meeting+-+December+15th+2022>
- Concentrate dose forms **may** be used for authoring of CDs
- What should we do about CDs that have been authored before it was possible to properly define a concentrate dose form?

Oral dose form (dose form) ☆ 📄  
SCTID: 385268001  
385268001 | Oral dose form (dose form) |  
*en* Oral dose form (dose form)  
*en* Oral dose form

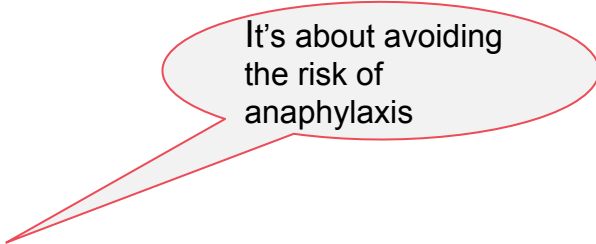
## Children (39)

-  Concentrate for conventional release oral or rectal solution (dose form)
-  Concentrate for conventional release oral solution (dose form)
-  Concentrate for conventional release oral suspension (dose form)

# Concentrate dose forms

- “RCDs are found as "concentrate for solution for infusion" still "solution for injection"
  - 781818004 |Product containing precisely ciclosporin 50 milligram/1 milliliter conventional release solution for infusion (clinical drug)|is covering the concept at international level as broader term. More granular CDs with "concentrate for solution for infusion" may be mapped in national extensions.

<p><b>1. Name of the medicinal product</b></p> <p>SANDIMMUN® Concentrate for Solution for Infusion 50mg/ml.</p> <hr/> <p><b>2. Qualitative and quantitative composition</b></p> <p>The concentrate for solution for infusion contains 50 mg/ml. Each ampoule of 1 ml contains 50 mg of ciclosporin. Each ampoule of 5 ml contains 250 mg of ciclosporin.</p> <p><u>Excipients with known effect:</u></p> <p>Ethanol: 278 mg/ml. Sandimmun 50 mg/ml concentrate for solution for infusion contains around 34% v/v ethanol (27.8% m/v ethanol).</p> <p>Macrogolglycerol ricinoleate/ Polyoxyl 35 castor oil: 650 mg/ml</p> <p>For the full list of excipients, see section 6.1.</p> <hr/> <p><b>3. Pharmaceutical form</b></p> <p>Concentrate for solution for infusion</p> <p>Clear, brown-yellow oleaginous concentrate.</p>	<p><b>6.6 Special precautions for disposal and other handling</b></p> <p>The concentrate should be diluted 1:20 to 1:100 with normal saline or 5% glucose, and given as a slow intravenous infusion over approximately 2 to 6 hours. Diluted infusion solutions must be discarded after 24 hours.</p>
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It's about avoiding the risk of anaphylaxis

# Pegylated and Liposomal Products

- Vyxeos
  - “After reconstitution the solution contains 2.2 mg/mL daunorubicin and 5 mg/mL cytarabine encapsulated in liposomes in a fixed combination in a 1:5 molar ratio”
  - The two substances are **together** inside the liposomes
- Besrими
  - “We don’t have ropeginterferon in Ireland, but for our peginterferons, we express the clinical drug in terms of the interferon with the peginterferon in brackets”
    - 0.5 mL solution contains 500 micrograms of ropeginterferon alfa-2b
    - The strength indicates the quantity of the interferon alpha-2b moiety of ropeginterferon alfa-2b without consideration of the pegylation.



## Overview

The Medicinal Product "containing only" (MP-only) concept is an abstract representation of the active ingredient(s) for a medicinal product. It means that the medicinal product must contain only the active ingredient(s) specified in the FSN but may also contain a modification of the active ingredient(s) specified in the FSN.

Example:

- Product containing only axitinib (medicinal product)
- Product containing only abacavir and lamivudine (medicinal product)

## Modeling (stated view)

MP-only concepts shall be modeled using the proximal primitive modeling pattern.

<b>Stated parent concept</b>	763158003 Medicinal product (product)
<b>Semantic tag</b>	(medicinal product)
<b>Definition status</b>	900000000000073002  Sufficiently defined by necessary conditions definition status (core metadata concept)
<b>Attribute:</b> <b>Has active ingredient</b>	<ul style="list-style-type: none"><li>• Range: 105590001 Substance (substance) - descendants only, excluding concepts representing structural groupers, dispositions, or combined substances</li><li>• Cardinality: 1..* - there is no technical limit on the number of Has active ingredient attributes that may be added to a concept; a practical limit may be imposed at a later date.</li></ul> <p>For content in the International Release, this attribute value should represent the base ingredient, not a modification, unless explicitly identified as an exception.</p> <ul style="list-style-type: none"><li>• Exceptions:<ul style="list-style-type: none"><li>• Chemical element with multiple modification (e.g. 422232005  Calcium lactate gluconate (substance) )</li><li>• Chloral hydrate (e.g. 775158004  Product containing only chloral hydrate (medicinal product) )</li><li>• Liposome or lipid complex substances(e.g. 426490000  Vincristine liposome (substance) , 425953004  Amphotericin B lipid complex (substance) , 768664009  Amphotericin B phospholipid complex (substance) , 427544000  Amphotericin B cholesteryl sulfate complex (substance) )</li><li>• Pegylated substance (e.g. 385544005  Pegfilgrastim (substance) , 770965008  Pegvaliase (substance) )</li><li>• Radiopharmaceutical (e.g. 783865003  Product containing only cyanocobalamin (58-Co) (medicinal product) , 783855009  Product containing only sodium iodide (131-I) (medicinal product) )</li><li>• Silver sulfadiazine (e.g. 864008004  Product containing only silver sulfadiazine (medicinal product) )</li><li>• Benzylpenicillin (e.g. 1234764000  Product containing only benzathine benzylpenicillin (medicinal product) )</li></ul></li></ul>

# Thoughts?

- If a substance has an INN, we might “expect” it to have have MP and MPF
- The attribute is “Has active ingredient” without modification
  - So liposomal substances and pegylated substances are considered exceptions

Parents

▶  Interferon alfa (substance)

 Peginterferon alfa-2b (substance)  

SCTID: 395823000

395823000 | Peginterferon alfa-2b (substance) |

*en* Peginterferon alfa-2b (substance)

*en* Peginterferon alfa-2b

Has disposition → Antiviral

Has disposition → Immunomodulator

Is modification of → Interferon alfa-2b

# Pegylation (1)

- If a substance has an INN, we might “expect” it to have have MP and MPF
- The attribute is “Has active ingredient” without modification
  - So liposomal substances and pegylated substances are considered exceptions and have MP and MPF

Parents

▶ ● Interferon alfa (substance)

● Peginterferon alfa-2b (substance) ☆

SCTID: 395823000

395823000 | Peginterferon alfa-2b (substance) |

*en* Peginterferon alfa-2b (substance)

*en* Peginterferon alfa-2b

Has disposition → Antiviral

Has disposition → Immunomodulator

Is modification of → Interferon alfa-2b

# Pegylation (2)

- At CD, the BoSS is (usually) stated as the unpegylated substance
  - Not least because we don't know the strength of the pegylated substance

☰ Product containing only peginterferon alfa-2b in parenteral dose form (medicinal product form) ☆

SCTID: 780147001

780147001 | Product containing only peginterferon alfa-2b in parenteral dose form (medicinal product form) |

*en* Product containing only peginterferon alfa-2b in parenteral dose form (medicinal product form)

*en* Peginterferon alfa-2b only product in parenteral dose form

Has manufactured dose form → Parenteral dose form

Count of base of active ingredient → 1

Plays role → Antineoplastic therapeutic role

Has active ingredient → Peginterferon alfa-2b

- Children (9)
- ☰ Product containing precisely interferon alfa-2b (as peginterferon alfa-2b) 100 microgram/1 vial powder for conventional release solution for injection (clinical drug)
  - ☰ Product containing precisely interferon alfa-2b (as peginterferon alfa-2b) 120 microgram/1 pen powder for conventional release solution for injection (clinical drug)
  - ☰ Product containing precisely interferon alfa-2b (as peginterferon alfa-2b) 120 microgram/1 vial powder for conventional release solution for injection (clinical drug)
  - ☰ Product containing precisely interferon alfa-2b (as peginterferon alfa-2b) 150 microgram/1 pen powder for conventional release solution for injection (clinical drug)
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  - ☰ Product containing precisely interferon alfa-2b (as peginterferon alfa-2b) 50 microgram/1 pen powder for conventional release solution for injection (clinical drug)
  - ☰ Product containing precisely interferon alfa-2b (as peginterferon alfa-2b) 50 microgram/1 vial powder for conventional release solution for injection (clinical drug)
  - ☰ Product containing precisely interferon alfa-2b (as peginterferon alfa-2b) 80 microgram/1 pen powder for conventional release solution for injection (clinical drug)
  - ☰ Product containing precisely interferon alfa-2b (as peginterferon alfa-2b) 80 microgram/1 vial powder for conventional release solution for injection (clinical drug)

# Pegylation (3)

- But not always....
  - Sometimes we only know the strength of the pegylated substance
  - There is no unpegylated “visomant”
  - It’s a growth hormone analogue protein that has the PEG integral with it

The screenshot displays a SNOMED CT interface for a product. The main entry is a blue box with the following text:

- ☰ Product containing only pegvisomant in parenteral dose form (medicinal product form) ☆
- SCTID: 786267007
- 786267007 | Product containing only pegvisomant in parenteral dose form (medicinal product form) |
- en Product containing only pegvisomant in parenteral dose form (medicinal product form)
- en Pegvisomant only product in parenteral dose form

To the right, there are two light blue boxes with dropdown menus:

- Has manufactured dose form → Parenteral dose form
- Count of base of active ingredient → 1
- Has active ingredient → Pegvisomant

Below this, a section titled "Children (4)" lists four related products:

- ☰ Product containing precisely pegvisomant 10 milligram/1 vial powder for conventional release solution for injection (clinical drug)
- ☰ Product containing precisely pegvisomant 15 milligram/1 vial powder for conventional release solution for injection (clinical drug)
- ☰ Product containing precisely pegvisomant 20 milligram/1 vial powder for conventional release solution for injection (clinical drug)
- ☰ Product containing precisely pegvisomant 30 milligram/1 vial powder for conventional release solution for injection (clinical drug)

Similar pattern with pegaptinib, used in AMD - it’s an anti-vascular endothelial growth factor aptamer (so a VEGF antagonist) with the PEG as an intrinsic part of the active molecule

# Adding the content to the International Edition



# Promotion of existing concepts

**Required:** Minimum 3 countries agree on concepts from collated xls

**Options:**

1. Retain local ID choosing earliest effective date; must be published in national extension
2. Create new International ID
3. Unpublished net new concepts to be submitted via CRS as per BAU

# Next therapeutic area....





# Some Suggestions

- By dose form
  - E.g. all pulmonary products
- By (high level) disposition (of substance)
  - 373272007 | Respiratory system agent (substance) |
  - 373247007 | Cardiovascular agent (substance) |
- We can use ECL to make queries more targeted if needed
- Gastro-intestinal agents

# Business Meeting



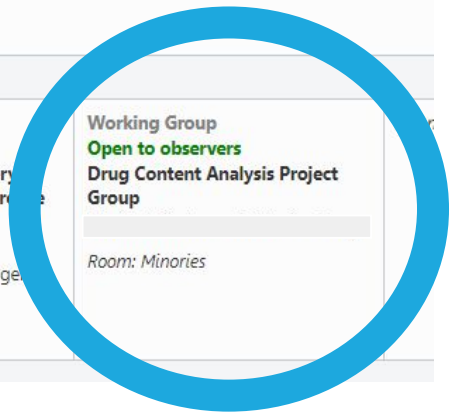
## APRIL 2023 BUSINESS MEETINGS HYBRID CONFERENCE | APRIL 1-11, 2023

**In-Person:** Andaz Liverpool Street, London, UK

**Online:** Zoom links will be shared on the What's on this Week calendar

Wednesday, April 5, 2023 (In-Person & Online) (Times in BST)

<b>08:30 BST</b>	<b>Registration Desk Open</b>			
<b>09:00-12:30</b> (Catered break: 10:30-11:00 in Great Eastern Gallery)	<b>Governance</b> <b>Closed - GA only</b> <b>Closed General Assembly (pt.2)</b> Chair: Alex Elias <i>Room: Great Eastern</i>	<b>Advisory Group</b> <b>Open to observers</b> <b>Modeling AG</b> Chairs: Peter G Williams & Yongsheng Gao <i>Room: Fenchurch</i>	<b>Working Group</b> <b>Open to all</b> <b>Pathology &amp; Laboratory Medicine Clinical Reference Group</b> Chairs: W. Scott Campbell, Thomas Rüdiger & James Campbell <i>Room: Bishopsgate</i>	<b>Working Group</b> <b>Open to observers</b> <b>Drug Content Analysis Project Group</b> <i>Room: Minories</i>
<b>12:30-13:30</b>	<b>Catered Lunch Break (1001 Ballroom)</b>			



A photograph of children in a science classroom. In the foreground, a child's hands are visible, holding a blue stick with a white ball. In the background, another child in a red plaid shirt is looking at something. There are various science supplies like test tubes and a rack on the table.

## NEXT STEPS

- Next meeting -  
*Thurs. 23rd March 10:00 UTC*

# THANK YOU

The logo consists of a solid blue square containing the text "SNOMED International" in white, sans-serif font. "SNOMED" is on the top line and "International" is on the bottom line.

SNOMED  
International

