

### Generating context notes to aid translation/validation based on editorial decisions

Use case from Norway



# What I will show you

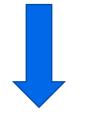
- One single use case from Norway
- The idea, the execution, and our experiences
- What it looked like in the Refset and **Translation Tool**
- Some thoughts on other methods and use cases
- Not the technical details and code

Direktoratet for e-helse

# **Context and background**

- Type of work: clinical validation of translations
  - performed by third party
  - translation agency + senior medical students
  - performed in the Refset and Translation Tool
  - high quantities (~100 000 concepts), limited time
- Our role
  - partly facilitating the work and offering terminological and linguistic advice
  - keeping track of editorial decisions along the way
  - update earlier validated translations in accordance with new editorial decisions

#### Felt like this



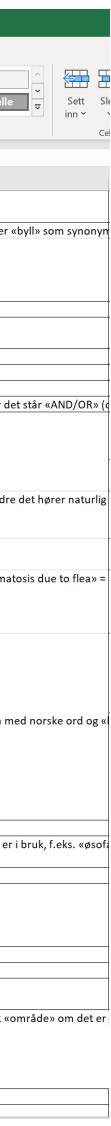


# The editorial list

Excel spreadsheet

- Editorial decisions:
  - Spelling
  - Choice of term
  - Synonyms
  - Context notes
  - What not to use
- Soon contained hundreds of lines, continuously updated

Lagre automatisk 💽 🛱	୬• ୯ - •	Felles redaksjonsordliste 181120	22 <sup>♀</sup> • Sist endret: 17. mars ✓	Søk (Alt+U)	
Fil <b>Hjem</b> Sett inn	Sideoppsett Formler Data Se gjennom	Visning Utvikler Hjelp	360°		
Calit	$\begin{array}{c c} bri & & 11 & A^* & A^* \\ \hline K & \_ & \blacksquare & & A^* & A^* \\ \hline K & \_ & \blacksquare & \blacksquare & A^* & A^* \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \_ & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \blacksquare & \blacksquare & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \blacksquare & \blacksquare & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \blacksquare & \blacksquare & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \blacksquare & \blacksquare & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \blacksquare & \blacksquare & \blacksquare & \blacksquare & \blacksquare & \blacksquare \\ \hline K & \blacksquare \\ \hline K & \blacksquare &$	<sup>≫</sup> ~ <sup>ab</sup> <sub>c</sub> Bryt tekst	Tekst ~	Normal Dårlig God	Nøytral Beregning
└── [] Kopier ~ Lim inn ~ ダ Kopier format				Formater Forklarende t Hyperkobling Inndata	Koblet celle Kontrollcelle
inn 🖌 🗳 Kopier format		$\stackrel{\leftarrow}{=} \stackrel{\rightarrow}{=} \textcircled{\square}$ Slå sammen og midte	still - Ce - 6000 ,00 - 50 formatering	v som tabell v	
Utklippstavle 🔽	Skrift 🛛 Ny gruppe	Justering	کا Tali	Stiler	
E43 - : × •	✓ fx				
A	ВС	E	F	G	Н
	1 Idiopathic		idiopatisk		
<ul><li>34 18.11.2019 (opphavleg)</li><li>35 18.11.2019</li></ul>	1 Abscess		abscess		Bruk eventuelt «verkebyll» eller
31.10.2022 (revidert),	1 Alveolar process		kjevekam	alveolarkam, processus alveolaris, alveolarprosess	,,,,,,,,,,,,,
,22.02.2012 (revidert),					
18.11.2019 (opphavleg) 36					
37 19.11.2019	1 Soft tissue structure		bløtvev		
19.11.2019	1 XXX (clinical)				Ikke oversett «(clinical)».
38					
<ul><li>39 08.09.2020</li><li>40 08.02.2021</li></ul>	1 Leucocyte	han	leukocytt bein	hvit blodcelle	
40 08.02.2021 41 08.02.2021	1 Bone 1 Stone	ben sten	stein		
42 19.11.2019	1 and/or		og/eller		Skriv om til små bokstaver der d
19.05.2021 (revidert),	1 Chest, Thorax		thorax	toraks, brystkasse	
22.04.2021 (revidert),					
43 19.11.2019 (opphavleg) 20.11.2019	1 Thoracic	thorakal	torakal		
44		liorakar	toruku		
19.11.2019	1 Structure / Structure of				Ikke bruk «struktur» med mindre
45					
45 20.11.2019	1 Spinal stenosis	spinalstenose	spinal stenose		
46		spinalsteriose			
22.02.2021	1 Due to		som skyldes		Kan også utelates, f.eks. «derma
47					
22.02.2021	1 Caused by		forårsaket av		
48					
09.02.2021	1 congenital	kongenitt	medfødt		I SY: Bruk «medfødt» sammen m
49					
50 09.02.2021 05.08.2021	1 oesophagus	øsofagal	øsofagus øsofageal	oesophagus, spiserør	Bruk sammensatte ord om de er
	1 esophageal	Joragai			brak sammensatte ord om de er
51			funn om		
	1 Finding of				
		tykktarm	kolon	colon	
52 04.03.2021	1 Finding of	tykktarm	kolon	colon	
52 04.03.2021 23.03.2021	1 Finding of	tykktarm	kolon	colon	
52 04.03.2021 23.03.2021 53	1 Finding of	tykktarm kolon	kolon tykktarm		
52 04.03.2021 23.03.2021 53 54 13.10.2021 55 02.11.2021	1       Finding of         1       colon         large intestine       sigmoid colon		tykktarm sigmoideum	colon sigmoideum	
52 04.03.2021 23.03.2021 53 54 13.10.2021 55 02.11.2021 02.11.2021	1     Finding of       1     colon       I     large intestine		tykktarm		
52 04.03.2021 23.03.2021 53 54 13.10.2021 55 02.11.2021 56 02.11.2021	1       Finding of         1       colon         large intestine         sigmoid colon         rectum	kolon	tykktarm sigmoideum	colon sigmoideum	Bruk helst «region» men bruk «
52 04.03.2021 23.03.2021 53 54 13.10.2021 55 02.11.2021 56	1       Finding of         1       colon         large intestine       sigmoid colon		tykktarm sigmoideum	colon sigmoideum	Bruk helst «region», men bruk «o
52 04.03.2021 23.03.2021 53 54 13.10.2021 55 02.11.2021 02.11.2021 56 57 03.05.2021 30.04.2021 58	1       Finding of         1       colon         large intestine         sigmoid colon         rectum         1         region	kolon	tykktarm sigmoideum rektum	colon sigmoideum rectum, endetarm mucosa, mukosa	Bruk helst «region», men bruk «c
52 04.03.2021 23.03.2021 53 54 13.10.2021 55 02.11.2021 02.11.2021 56 57 03.05.2021 30.04.2021 58 14.06.2021 (revidert)	1       Finding of         1       colon         large intestine         sigmoid colon         rectum         1         region	kolon	tykktarm sigmoideum rektum	colon sigmoideum rectum, endetarm	Bruk helst «region», men bruk «c
<ul> <li>53</li> <li>54 13.10.2021</li> <li>55 02.11.2021</li> <li>02.11.2021</li> <li>56</li> <li>57 03.05.2021</li> <li>30.04.2021</li> <li>58</li> </ul>	1       Finding of         1       colon         large intestine         sigmoid colon         rectum         1       region         1       mucous membrane	kolon	tykktarm sigmoideum rektum slimhinne	colon sigmoideum rectum, endetarm mucosa, mukosa	Bruk helst «region», men bruk «c



## **Difficulties using the editorial list**

- Upgraded lists were distributed by email
- Exceedingly difficult to navigate
- Difficulties keeping track of versions and updates
- Not integrated with the tool in any way

Direktoratet for e-helse

What if we can look up the relevant concepts based on the editorial list and generate translation notes to each relevant concept?



# **Creating a lookup function**

#### Creating the master file

- Add a column containing a regular expression string for each line
- Combine the entry to a short note, stamped with date
- Run every line through Swagger to identify relevant concept IDs
- Pair each concept ID with the notes in a master file
- Combine notes if a concept has more than one
- We used Power Query in Excel

Swagger		Select a definition snowstorm	~
Supported by SMARTBEAR			
		29.04.2022: Fra redaksionsordlista:	
110026000	PREFERRED	· · · · · · · · · · · · · · · · · · ·	
47848000	FILLERINED		
87172002			
87173003	FREFERRED		
00225006			
0001000	PREFERRED		
EE974001			
55874001	PREFERRED		
56642004	DREEEDED		
//148/004	PREFERRED		
707407000			
16674931000119109	PREFERRED		
15011021000110102			
12911931000119102	PREFERRED		
70000000			
86962004	PREFERRED		
11207201000110101			
1130/201000119104	PREFERRED		
36778005	PREFERRED		
07506065	000000000000000000000000000000000000000		
24424003	PREFERRED	29.04.2022: Fra redaksjonsordlista:	
1011707-	PREFERRED	29.04.2022: Fra redaksjonsordlista: Fracture: «fraktur» (PT), «brudd» (SY).	
19417000			
19417000 20013001	PREFERRED	29.04.2022: Fra redaksjonsordlista:	
20013001	PREFERRED	29.04.2022: Fra redaksjonsordlista: Fracture: «fraktur» (PT), «brudd»	
20013001 275338001	PREFERRED	29.04.2022: Fra redaksjonsordlista: Fracture: «fraktur» (PT), «brudd» (SY). femur: «femur» (PT), «lårbein» (SY).	
20013001 275338001 297131007	PREFERRED PREFERRED PREFERRED	29.04.2022: Fra redaksjonsordlista: Fracture: «fraktur» (PT), «brudd» (SY). femur: «femur» (PT), «lårbein» (SY). 29.04.2022: Fra redaksjonsordlista: Fracture: «fraktur» (PT), «brudd» (SY).	
20013001 275338001	PREFERRED	29.04.2022: Fra redaksjonsordlista: Fracture: «fraktur» (PT), «brudd» (SY). femur: «femur» (PT), «lårbein» (SY).	
	Swagger. I10026000 111645003 125166001 47848000 87173003 87173003 90235006 78383001 79110007 65061006 55874001 65061006 55874001 66517001 67130000 771487004 16674931000119109 15911931000119102 788939003 86962004 11307201000119104 15385006 426164005 301878001 428764005 301878001 428764005 301878001 428764005 301878001 428764005 301878001 428764005 301878001 428764005 301878001 428764005 301878001 428764005 301878001 428764005 301878001 428764005 301878001 428764005 301878001 428764005 301878001 428764005 301878001 301878001 301878001 301878001 301878001 301878001 301878001 301878001 301878001 301878001 301878005 30	Autorský SMARTELEAR         1110026000       PREFERRED         111645003       PREFERRED         125166001       PREFERRED         47848000       PREFERRED         87173003       PREFERRED         90235006       PREFERRED         78383001       PREFERRED         79110007       PREFERRED         65061006       PREFERRED         55874001       PREFERRED         56642004       PREFERRED         6517001       PREFERRED         66517001       PREFERRED         787487000       PREFERRED         787487000       PREFERRED         15911931000119102       PREFERRED         788939003       PREFERRED         86962004       PREFERRED         6954003       PREFERRED         6954003       PREFERRED         6954003       PREFERRED         6954003       PREFERRED         6954003       PREFERRED         11307201000119104       PREFERRED         6954003       PREFERRED         301878001       PREFERRED         301878001       PREFERRED         301878001       PREFERRED         301878001       PREFERRED </td <td>29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» (SY). 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» (SY). 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» (SY). 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» (SY). 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» (SY). 5025006 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» (SY). 50561006 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» (SY). 55874001 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» (SY). 55874001 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» (SY). 56642004 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» (SY). 77.1487004 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» (SY). 56642004 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «brudd» (SY). 29.04.2022: Fra redaksjonsordlista.cbr&gt;cbr&gt;fracture: «fraktura (PT), «br</td>	29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» (SY). 29.04.2022: Fra redaksjonsordlista.cbr>cbr>cbr>fracture: «fraktura (PT), «brudd» (SY). 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» (SY). 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» (SY). 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» (SY). 5025006 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» (SY). 50561006 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» (SY). 55874001 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» (SY). 55874001 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» (SY). 56642004 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» (SY). 77.1487004 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» (SY). 56642004 PREFERRED 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «brudd» (SY). 29.04.2022: Fra redaksjonsordlista.cbr>cbr>fracture: «fraktura (PT), «br



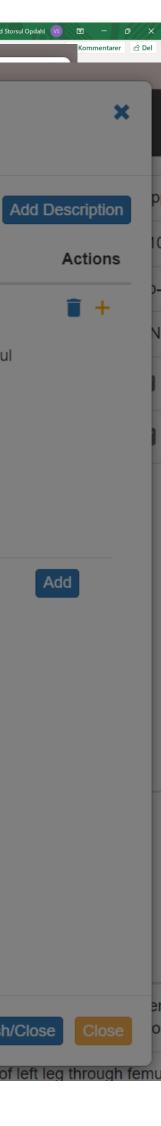


## Uploading a batch with notes

- Generate new master file from most recent editorial list
- Look up concept IDs in the batch file and combine with notes from the master file, in the notes column
- When uploaded to the Refset and Translation Tool, notes will show up in the notes field



omatisk 🗸 🌒 🕎		Kliniske_377 • Sist endret: 03.05.2022 ∨					V
	ers is not guaranteed.						
	Edit Concept 263 Translation Author(s):	Concept Notes					
OME		Name	Supracondyla	Supracondylar fracture femur			
	Concept Details	Concept Id	263235001				Ē
OME	Parents	Notes (1)					or
DME		Concept Notes		Date	Author		
	> 240172008 : Disorder Concept	29.04.2022: Fra redaksjo	onsordlista:	2023-04-03 13:27:58	vopdahl	Î	d Sto
DME	263235001 Supracondyla	Fracture: «fraktur» (PT),	«brudd» (SY).	15.27.56			
OME	Descriptions	femur: «femur» (PT), «lå	rbein» (SY).				
DME	<ul> <li>Supracondylar fractur</li> <li>(disorder)</li> <li>suprakondylær femur</li> </ul>	<ul><li>♠ I Formats</li></ul>	- B <i>I</i> ⊻	<del>\$</del> Ω∂			l
DME	<ul> <li>Supracondylar fractur</li> <li>suprakondylært lårbe</li> <li>suprakondylært brude</li> </ul>						ate)
OME	Attributes						
	• 1 44351 Finding of fem						
OME	site					Add Close	
	Associated abnorm	· · · ·					
		007 Traumatic event (event)	)				
	Due to						
	Children (1)						
	79978005 : Open supra (disorder)	condylar fracture of femur	• •				
				Save/N	ext Finish/Next	Save/Close	Fi
				2265240004	10102	History of am	outotic



## **Experiences and learning**

#### Notes

- Deemed generally helpful The method was developed specifically to be used for validation of translated concepts in the Refset and Translation The notes are «dumb»: Tool.
- This was based on our knowledge and technical competence at the time.
- Regular expressions are tricky. ECL searches could be a better alternative.

Learning points

- Terms appeared in contexts we had not anticipated – the notes were irrelevant and/or confusing
- Must be used for what it is: a helpful tool, not a source of absolute truth.



### Thank you for your time

Direktoratet for e-helse

