

Harmonizing SNODENT and SNOMED CT to support Dentistry EHR's

Presented by:

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SNOMED CT

The global
language of
healthcare

ADA and IHTSDO Agreement

Signed a cooperation agreement in 2012:

- Harmonize SNODENT and SNOMED CT
- Meet the electronic health and dental record clinical terminology needs of dentistry internationally
- Establish the International Dentistry SIG
- Collaboration on future products

SNODENT is a SUBSET of SNOMED CT

- Allows clinicians to record detailed oral health data in a semantically interoperable manner
- Includes oral anatomical sites, oral health conditions, findings, disorders and other clinical concepts unique to dentistry
- SNODENT enables the capture, aggregation, and analysis of detailed oral health data
- Can be used in HL7 Clinical Document Templates such as Continuing Care Documents (CCD) and other standards

International Dentistry SIG

- Supported by two Senior Terminologists
- Initial work on harmonizing SNODENT to SNOMED CT
- Future “Reference Set” (RefSet) Development
- Updating SNOMED CT dental categories
 - Dental Caries
 - Endodontic Concepts
 - Periodontic Concepts
 - Orthodontic Concepts

General Dentistry diagnoses SNOMED CT subset

- ADA developed a compact, general practice-oriented subset that can be easily implemented by general dentists and EDR vendors
- ADA Dentistry RefSet Task Force included:
 - Clinicians
 - Academia
 - Third-party payers
 - Vendors
 - IHTSDO
- Work plan 2016 for International Dentistry SIG project
- Pilot subset
- Other subsets may be developed for specialties

Future Collaborations?



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Benefits of working with Dentistry specialists

Penni Hernandez

Senior Terminologist, IHTSDO

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International Dentistry SIG

- Many benefits from working together:
 - Opportunities for collaboration
 - Opportunities for education
 - Higher quality submissions of new concepts
 - Questions answered quickly with less churn
- The SIG has made rapid progress, it worked well because all participants were open to change and learning about SNOMED CT
- SNOMED CT now has improved dental content
- It has been fun!



Tannhelsetjenestens
kompetansesenter
Midt-Norge



ihtsdo

Leading healthcare
terminology, worldwide

SNOMED CT in a dental EHR

Exporting structured data using SNOMED CT
– and using SNOMED CT to make the EHR
more structured

Jørn Andre Jørgensen

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Project goal

- Assess SNOMED CT for use in dentistry in Norway
- Make a test-extract of already structured information
 - Diagnosis
 - Teeth and surfaces
 - Status/odontogram
 - Procedures
 - Etc.
- Identify gaps – and start filling them
 - (Or just find them inside SNOMED CT...)
- Set a path for translation, implementation and data-exchange



Everyday dental EHR

Diagnose

- Kar...
- Def...
- Frak...
- Overh...
- Ob
- En...
- Pe...
- Trau...
- Kj....
- Bitt...
- Age...
- Reti...
- Overt...
- Rotr...
- Oral...
- Kir...
- Dive...

Opus Dental 7.1.945.0 - <Distriktstannklinikken i Lillevik AS> 19.10.2015 - [SNOMED Statistics]

Pasient ikke valgt...

Kommun: [] Gruppevalg: [] Inkluder undersøkte nasienter som ikke inkluderer pasienter som er sluttet/flyttet

Krets: [] Melketenner reones t. [] -åringer

Behandler: []

Organisasj: []

Utført

- U
- Rt
- Pr...
- H...
- An...
- Am...
- Ko...
- Kr...
- Midl. kr...
- Brop...
- Brol...
- Prot...
- Im...
- S...

OrgNo	DisplayedNa	CustomerNo	DisplayedPe	LastName	FirstName	Dato	SCTID	Toot	SCTText	Tooth	SCTID_Surf	SCTText_Surface	SCTID	SCTText	DD
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	8014008		ISO designation 44				278661005	Tooth present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	8873007		ISO designation 45				278661005	Tooth present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	28480000		ISO designation 46				278661005	Tooth present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	40005008		ISO designation 47				278661005	Tooth present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	38994002		ISO designation 48				278661005	Tooth present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	22120004		ISO designation 11	62579006	Structure of vestibular surface of tooth (bo		278661005	Primary caries. Active caries. Outer third of dentin	548
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	11712009		ISO designation 12				278661005	Dental crown present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	23427002		ISO designation 26	90933009.6	Structure of distal surface of tooth (body st		5b32ea4b-4	Direct dental restoration present.Non-metallic colo	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	57826002		ISO designation 14				278661005	Tooth present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	80647007		ISO designation 13				278661005	Tooth present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	5140004		ISO designation 16				278661005	Tooth present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	36492000		ISO designation 15				278661005	Tooth present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	23226009		ISO designation 25	62579006	Structure of vestibular surface of tooth (bo		278553009	Dental veneer present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	68303006		ISO designation 27	72203008	Structure of lingual surface of tooth (body		6880e5d6-d	Indirect dental restoration present.Non-metallic col	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	61897005		ISO designation 24	83473006.9	Structure of occlusal surface of tooth (bod		278554003	Indirect dental restoration present.Metallic colored	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	2400006		ISO designation 34				278554003	Dental bridge present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	89625000		ISO designation 38				278554003	Dental bridge present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	24573005		ISO designation 35				278554003	Dental bridge present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	39844006		ISO designation 33				27806000	Dental prosthesis device	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	77130001		ISO designation 32	3262009	Structure of root canal of tooth (body struc		234712004	Root Canal Filling.Uloresis	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	22120004		ISO designation 11				278661005	Tooth present	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	25.06.2015	836005		Structure of oral regio				34043003	Dental consultation and report	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	5140004		ISO designation 16	90933009.6	Structure of distal surface of tooth (body st		5b32ea4b-4	Direct dental restoration present.Metallic colored d	974
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	22120004		ISO designation 11	8483002	Structure of mesial surface of tooth (body		e00718fe-b8	Primary caries. Active caries. Middle third of denti	94
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	22120004		ISO designation 11	90933009	Structure of lingual surface of tooth (body		e00718fe-b8	Primary caries. Active caries. Inner third of dentin	75
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	22120004		ISO designation 11	90933009	Structure of distal surface of tooth (body st		e00718fe-b8	Primary caries. Non-active caries. Middle third of d	94
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	22120004		ISO designation 11	245714005	Palatal surface of root (body structure)		e00718fe-b8	Primary caries. Non-active caries. Inner third of de	94
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	22120004		ISO designation 11	62579006	Structure of vestibular surface of tooth (bo		0011309a-a	Secondary caries. Active caries	91
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	8873007		ISO designation 45				234948008	Tooth absent	25
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	80647007		ISO designation 13	245718007	Mesial surface of root (body structure)		e00718fe-b8	Primary caries. Active caries. Outer third of dentin	54
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	80647007		ISO designation 13	245718007	Mesial surface of root (body structure) Pal		e00718fe-b8	Primary caries. Non-active caries. Outer half of en	97
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	57826002		ISO designation 13	245717003	Distal surface of root (body structure)		e00718fe-b8	Primary caries. Non-active caries. Inner half of en	94
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	68085002		ISO designation 18				235104008	Impacted tooth	35
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	57826002		ISO designation 14	83473006	Structure of occlusal surface of tooth (bod		36202009	Fracture of tooth	75
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	8326002		ISO designation 14	62579006	Structure of vestibular surface of tooth (bo		26748008	Hypercalcification of tooth	92
999999999	Distriktstann	10138	150765-005	Gudensen	Ronald	26.06.2015	80647007		ISO designation 13	0480003	Structure of mesial surface of tooth (body		62579006	Fracture of tooth	96

5140004

ISO designation 16

62579006

Structure of vestibular surface of tooth (bo

47222000

Abrasion of tooth

Lagre Velg Lukk

Server: jajlap/opus Database: No_71_MassaOriginal_9689 Bruker: hanne Team: Avdeling: OPUS



Record detail



21	Ml				Komplisert fraktur tann - emalje/dentin/pulpa
					Aveles nå retting av journalen



424399000, 245660001, 109753007



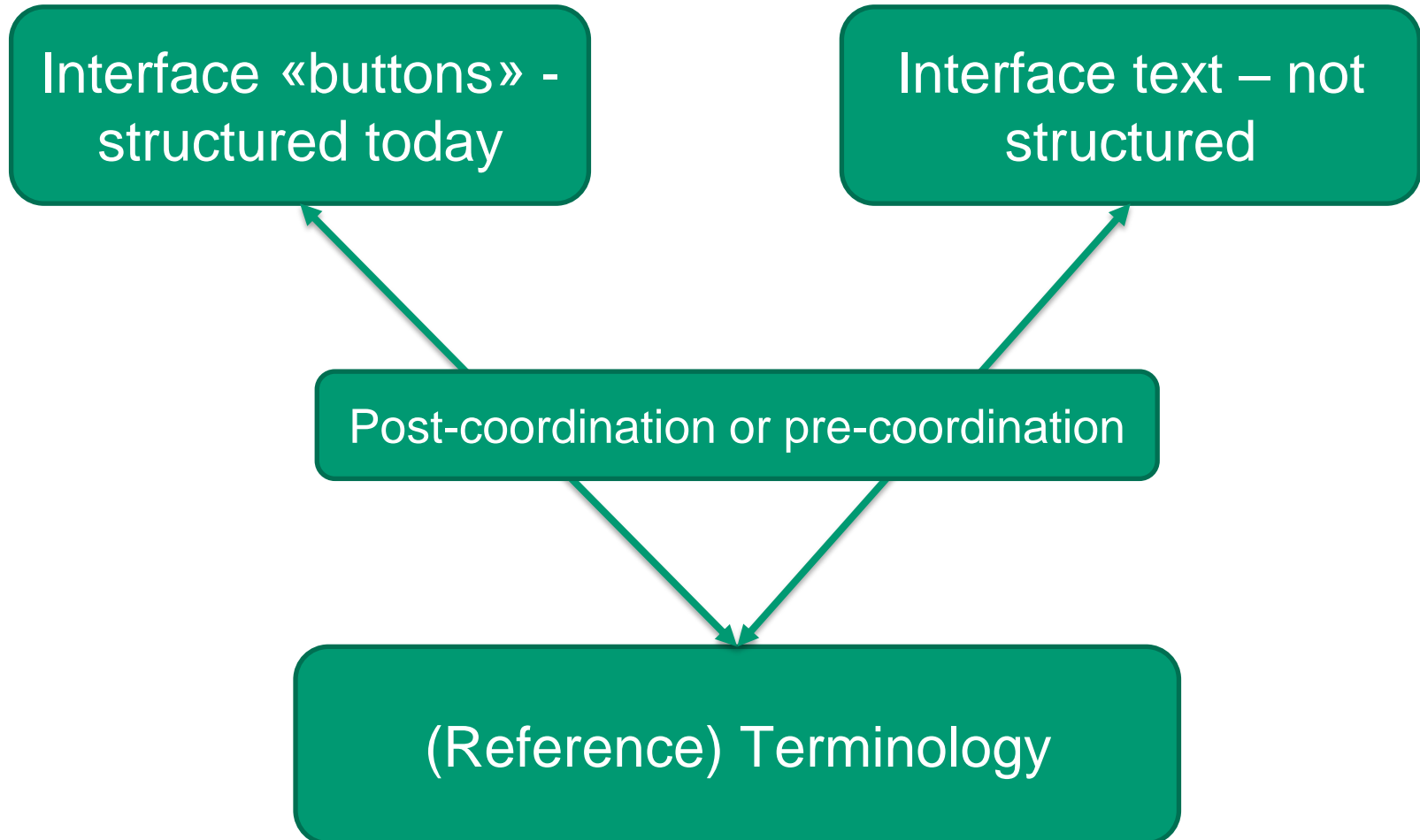
Structure of permanent maxillary left central incisor tooth



Mesial-incisal



Fracture of crown of tooth, enamel and dentin, with pulp exposure





Preliminary conclusions

- High degree of structured information, combined with a limited complexity, makes dentistry well suited for using SNOMED CT
- General dentistry is well covered
 - some minor needs for additions to SNOMED CT
- Already existing structured information from the EHR can be represented using SNOMED CT
- Adjustments to the EHR are needed to get full benefit from SNOMED CT within all areas of dentistry
- Sub sets or reference sets are probably needed for national implementation