

# Health & Care Information Model: nl.nfu.Wound-v1.0

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# 1. nl.nfu.Wound-v1.0

DCM::CoderList	Werkgroep RadB Verpleegkundige Gegevens
DCM::ContactInformation.Address	*
DCM::ContactInformation.Name	*
DCM::ContactInformation.Telecom	*
DCM::ContentAuthorList	Werkgroep RadB Verpleegkundige Gegevens
DCM::CreationDate	7-7-2014
DCM::DeprecatedDate	
DCM::DescriptionLanguage	nl
DCM::EndorsingAuthority.Address	
DCM::EndorsingAuthority.Name	NFU & V&VN
DCM::EndorsingAuthority.Telecom	
DCM::Id	2.16.840.1.113883.2.4.3.11.60.40.3.19.2
DCM::KeywordList	Wond, wondzorg, WCS, TIME, ulcus
DCM::LifecycleStatus	Final
DCM::ModelerList	Werkgroep RadB Verpleegkundige Gegevens
DCM::Name	nl.nfu.Wond
DCM::PublicationDate	8-9-2015
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DCM::ReviewerList	Projectgroep RadB Verpleegkundige Gegevens & Kerngroep Registratie aan de Bron
DCM::RevisionDate	8-9-2015
DCM::Superseeds	
DCM::Version	1.0
HCIM::PublicationLanguage	EN

## 1.1 Revision History

Publicatieversie 1.0 (01-07-2015)

## 1.2 Concept

A wound is an interruption of the continuity of the skin, often caused by external influences.

A commonly used model for documenting the wound properties is the TIME ('Tissue', 'Infection', 'Moisture', 'Edge') model, which can be used to systematically describe the wound. For wound tissue (T in the TIME model), the structure of the WCS model (Woundcare Consultant Society, WCS Kenniscentrum Wondzorg) is used. The WCS model is not suited for describing oncological ulcers. There is a separate classification for that.

Oncological ulcers are skin defects which result from the tumor process. They are different from wounds resulting from cancer treatment, such as radiotherapy, chemotherapy or surgery.

The concept does not describe decubitus wounds and burn wounds. For these, the relevant building blocks can be used.

## 1.3 Mindmap

## 1.4 Purpose

Information on the wound is recorded to share this information with other healthcare providers. This information can be used to monitor the wound's healing process and provide insight into the implemented policy. In a transfer situation, it facilitates continuation of the treatment.

## 1.5 Patient Population

## 1.6 Evidence Base

Though the TIME model can be applied to all types of wounds in the list of wound types, the wound tissue classification (T in the TIME model) is different for different types.

The WCS classification is used for surgical wounds, trauma wounds, diabetic foot and venous ulcers. The following values are used:

- Red wound: granulation tissue
- Yellow wound: signs of infection or fibrin layer
- Black wound: with necrosis

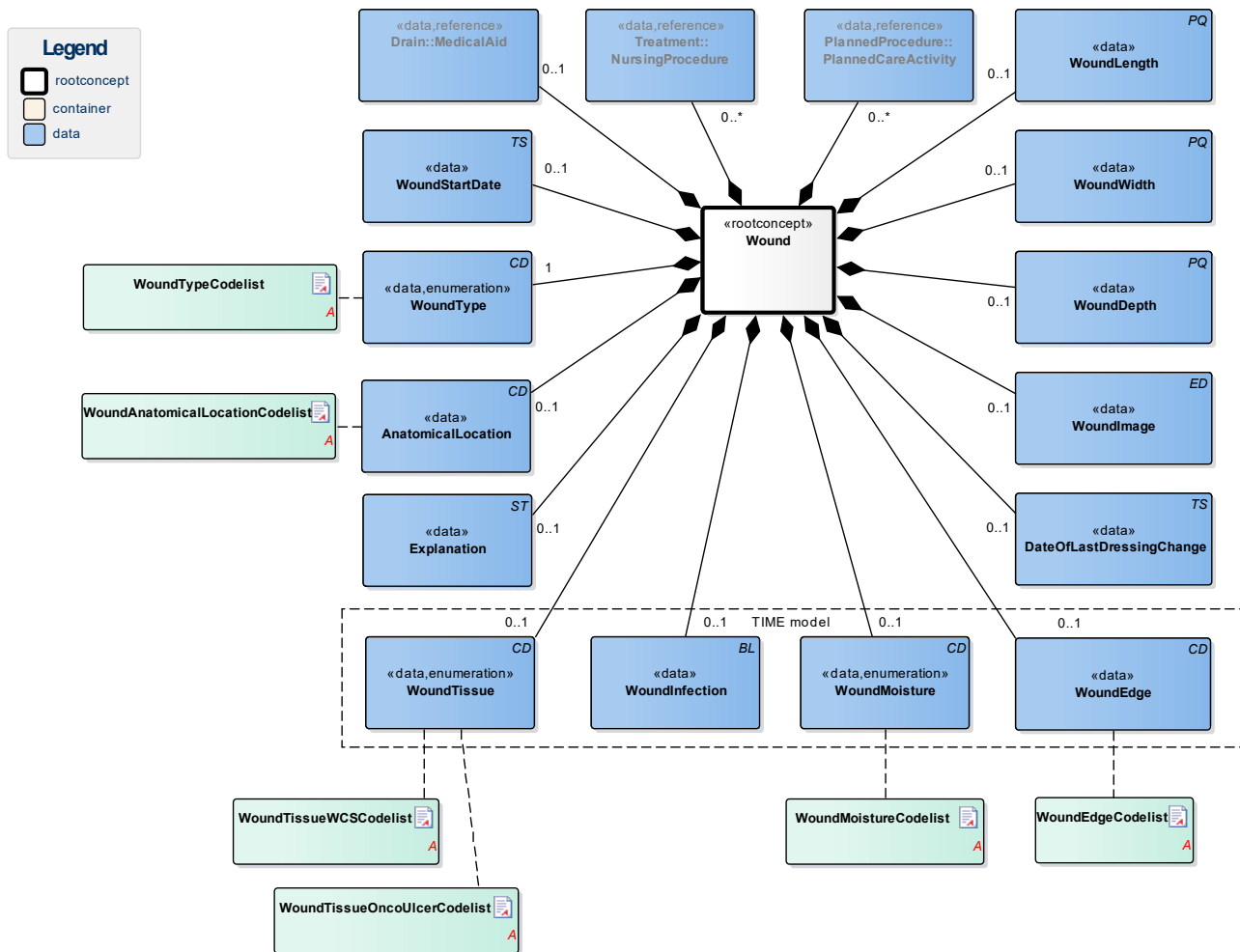
(Source: [www.wcs.nl](http://www.wcs.nl))

Tissue in oncological ulcers is classified as follows:

- Degree I: intact epidermis with imminent damage to the skin through underlying tumor tissue
- Degree II: beginning damage to the subcutis
- Degree III: deep continued growth with damaged subcutis
- Degree IV: dry and/or liquefactive necrosis of up to 30% of the wound surface
- Degree V: dry and/or liquefactive necrosis of more than 30% of the wound surface

(Source: [www.oncoline.nl](http://www.oncoline.nl))

## 1.7 Information Model



«rootconcept»	Wound	
Definitie	Root concept of the Wound building block. This root concept contains all data elements of the Wound building block.	
Datatype		
DCM::ConceptId	NL-CM:19.2.1	
Opties		

«data»	WoundType	
Definitie	Description of the type of wound.	
Datatype	CD	
DCM::ConceptId	NL-CM:19.2.5	
DCM::ExampleValue	Chirurgische wond	
DCM::ValueSet	WoundTypeCodeList	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.19.2.4
Opties		

«data»	WoundTissue	
Definitie	Description of the tissue of the wound. For this, the WCS model can be used. A different classification is used for oncological ulcers.	
Datatype	CD	
DCM::ConceptId	NL-CM:19.2.4	
DCM::ExampleValue	Rode wond	
DCM::ValueSet	WoundTissueOncoUlcerCodeList	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.19.2.2

<b>DCM::ValueSet</b>	WoundTissueWCSCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.19.2.1
<b>Opties</b>		

<b>«data»</b>	<b>WoundInfection</b>	
<b>Definitie</b>	Indication stating whether the wound is infected.	
<b>Datatype</b>	BL	
<b>DCM::ConceptId</b>	NL-CM:19.2.7	
<b>DCM::DefinitionCode</b>	SNOMED CT: 405009004 Infection status	
<b>Opties</b>		

<b>«data»</b>	<b>WoundMoisture</b>	
<b>Definitie</b>	Description of the moisture in the wound.	
<b>Datatype</b>	CD	
<b>DCM::ConceptId</b>	NL-CM:19.2.6	
<b>DCM::DefinitionCode</b>	SNOMED CT: 298007001 Moistness of wound	
<b>DCM::ExampleValue</b>	Droge wond	
<b>DCM::ValueSet</b>	WoundMoistureCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.19.2.3
<b>Opties</b>		

<b>«data»</b>	<b>WoundEdge</b>	
<b>Definitie</b>	Description of the condition of the outer edges of the wound.	
<b>Datatype</b>	CD	
<b>DCM::ConceptId</b>	NL-CM:19.2.11	
<b>DCM::DefinitionCode</b>	SNOMED CT: 449747006 Wound edge finding	
<b>DCM::ValueSet</b>	WoundEdgeCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.19.2.5
<b>Opties</b>		

<b>«data»</b>	<b>WoundLength</b>	
<b>Definitie</b>	The length of the wound.	
<b>Datatype</b>	PQ	
<b>DCM::ConceptId</b>	NL-CM:19.2.12	
<b>DCM::DefinitionCode</b>	SNOMED CT: 401238003 Length of wound	
<b>DCM::ExampleValue</b>	100 mm	
<b>Opties</b>		

<b>«data»</b>	<b>WoundWidth</b>	
<b>Definitie</b>	The width of the wound.	
<b>Datatype</b>	PQ	
<b>DCM::ConceptId</b>	NL-CM:19.2.13	
<b>DCM::DefinitionCode</b>	SNOMED CT: 401239006 Width of wound	
<b>DCM::ExampleValue</b>	30 mm	
<b>Opties</b>		

«data»	WoundDepth	
Definitie	The depth of the wound.	
Datatype	PQ	
DCM::ConceptId	NL-CM:19.2.14	
DCM::DefinitionCode	SNOMED CT: 425094009 Depth of wound	
DCM::ExampleValue	8 mm	
Opties		

«data»	AnatomicalLocation	
Definitie	The location of the wound on the body.	
Datatype	CD	
DCM::ConceptId	NL-CM:19.2.8	
DCM::ExampleValue	Linker bovenbeen	
DCM::ValueSet	WoundAnatomicalLocationCodelist	OID: 2.16.840.1.113883.2.4.3.11.60.40.2.19.2.6
Opties		

«data»	WoundStartDate	
Definitie	The date on which the wound appeared.	
Datatype	TS	
DCM::ConceptId	NL-CM:19.2.2	
DCM::ExampleValue	12-04-2014	
Opties		

«data»	DateOfLastDressingChange	
Definitie	Date on which the dressing was last changed.	
Datatype	TS	
DCM::ConceptId	NL-CM:19.2.3	
DCM::ExampleValue	15-08-2014	
Opties		

«data»	Drain::MedicalAid	
Definitie	A drain is a medical aid placed to drain blood and exudate from the wound area.	
Datatype		
DCM::ConceptId	NL-CM:19.2.17	
DCM::DefinitionCode	SNOMED CT: 258646005 Wound drain	
DCM::ReferencedConceptId	NL-CM:10.1.1	This is a reference to concept MedischHulpmiddel in information model MedischHulpmiddel.
Opties		

«data»	Treatment::NursingProcedure	
Definitie	The nursing procedures required to care for the wound, such as cleaning the wound. Things like the used dressing and bandage materials and the frequency of the dressing changes can be described as well.	

<b>Datatype</b>		
<b>DCM::ConceptId</b>	NL-CM:19.2.10	
<b>DCM::ReferencedConceptId</b>	NL-CM:14.2.9	This is a reference to concept VerpleegkundigeActie in information model VerpleegkundigeInterventie.
<b>Opties</b>		

<b>«data»</b>	<b>PlannedProcedure::PlannedCareActivity</b>	
<b>Definitie</b>	The planned (nursing) procedure or 'clinical reminder'. This could for example be a reminder for the time at which the wound dressing is to be replaced or at which the drain is to be placed.	
<b>Datatype</b>		
<b>DCM::ConceptId</b>	NL-CM:19.2.16	
<b>DCM::ReferencedConceptId</b>	NL-CM:16.1.1	This is a reference to concept GeplandeZorgActiviteit in information model OverdrachtGeplandeZorgActiviteit.
<b>Opties</b>		

<b>«data»</b>	<b>WoundImage</b>	
<b>Definitie</b>	A photo of the wound.	
<b>Datatype</b>	ED	
<b>DCM::ConceptId</b>	NL-CM:19.2.15	
<b>Opties</b>		

<b>«data»</b>	<b>Explanation</b>	
<b>Definitie</b>	Explanation of the wound.	
<b>Datatype</b>	ST	
<b>DCM::ConceptId</b>	NL-CM:19.2.9	
<b>DCM::DefinitionCode</b>	LOINC: 48767-8 Annotation comment	
<b>Opties</b>		

<b>«document»</b>	<b>WoundAnatomicalLocationCodelist</b>	
<b>Definitie</b>		
<b>Datatype</b>		
<b>DCM::ValueSetId</b>	2.16.840.1.113883.2.4.3.11.60.40.2.19.2.6	
<b>Opties</b>		
<b>WondAnatomischeLocatieCodelijst</b>		<b>OID: 2.16.840.1.113883.2.4.3.11.60.40.2.19.2.6</b>
Codes	Coding Syst. Name	Coding System OID
SNOMED CT: <<91723000   anatomical structure	SNOMED CT	2.16.840.1.113883.6.96

<b>«document»</b>	<b>WoundEdgeCodelist</b>	
<b>Definitie</b>		
<b>Datatype</b>		
<b>DCM::ValueSetId</b>	2.16.840.1.113883.2.4.3.11.60.40.2.19.2.5	
<b>Opties</b>		



WondRandCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.19.2.5		
Concept Name	Concept Code	CodeSys. Name	CodeSystem OID	Description
Wound epithelialisation	449743005	SNOMED CT	2.16.840.1.113883.6.96	Epithelisatie
Skin irritation	367466007	SNOMED CT	2.16.840.1.113883.6.96	Irritatie
Wound tissue undermining	449752001	SNOMED CT	2.16.840.1.113883.6.96	Ondermijning
Macerated skin	3644009	SNOMED CT	2.16.840.1.113883.6.96	Verweking
Other	OTH	NullFlavor	2.16.840.1.113883.5.1008	Anders

«document»	WoundTissueOncoUlcerCodelist	
Definitie		
Datatype		
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.19.2.2	
Opties		

OncoUlcerWeefselCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.19.2.2		
Concept Name	Concept Code	CodeSys. Name	CodeSystem OID	Description
Graad I	GRAAD1	OncoUlcerWeefsel	2.16.840.1.113883.2.4.3.11.60.40.4.7.1	Graad I
Graad II	GRAAD2	OncoUlcerWeefsel	2.16.840.1.113883.2.4.3.11.60.40.4.7.1	Graad II
Graad III	GRAAD3	OncoUlcerWeefsel	2.16.840.1.113883.2.4.3.11.60.40.4.7.1	Graad III
Graad IV	GRAAD4	OncoUlcerWeefsel	2.16.840.1.113883.2.4.3.11.60.40.4.7.1	Graad IV
Graad V	GRAAD5	OncoUlcerWeefsel	2.16.840.1.113883.2.4.3.11.60.40.4.7.1	Graad V

«document»	WoundTissueWCSCodelist	
Definitie		
Datatype		
DCM::ValueSetId	2.16.840.1.113883.2.4.3.11.60.40.2.19.2.1	
Opties		

WondWeefselWCSCodelijst		OID: 2.16.840.1.113883.2.4.3.11.60.40.2.19.2.1		
Concept Name	Concept Code	CodeSys. Name	CodeSystem OID	Description
Rode wond	ROOD	WondWeefselWCS	2.16.840.1.113883.2.4.3.11.60.40.4.7.2	granulerend weefsel
Gele wond	GEEL	WondWeefselWCS	2.16.840.1.113883.2.4.3.11.60.40.4.7.2	met infectieverschijnselen of fibrinebeslag
Zwarte wond	ZWART	WondWeefselWCS	2.16.840.1.113883.2.4.3.11.60.40.4.7.2	met necrose

«document»	WoundTypeCodelist
Definitie	
Datatype	

<b>DCM::ValueSetId</b>	2.16.840.1.113883.2.4.3.11.60.40.2.19.2.4			
<b>Opties</b>				
<b>WondSoortCodelijst</b>		<b>OID: 2.16.840.1.113883.2.4.3.11.60.40.2.19.2.4</b>		
Concept Name	Concept Code	CodeSys. Name	CodeSystem OID	Description
Surgical wound	112633009	SNOMED CT	2.16.840.1.113883.6.96	Chirurgische wond
Wound	416462003	SNOMED CT	2.16.840.1.113883.6.96	Traumatische wond
Ulcer of lower extremity	95344007	SNOMED CT	2.16.840.1.113883.6.96	Ulcus cruris
Secondary malignant neoplasm of skin	94579000	SNOMED CT	2.16.840.1.113883.6.96	Oncologische ulcer
Radiation ulcer	403722002	SNOMED CT	2.16.840.1.113883.6.96	Stralingswond
Diabetic foot ulcer	371087003	SNOMED CT	2.16.840.1.113883.6.96	Ulcus van diabetische voet
Other	OTH	NullFlavor	2.16.840.1.113883.5.1008	Anders

<b>«document»</b>	<b>WoundMoistureCodelist</b>			
<b>Definitie</b>				
<b>Datatype</b>				
<b>DCM::ValueSetId</b>	2.16.840.1.113883.2.4.3.11.60.40.2.19.2.3			
<b>Opties</b>				
<b>WondVochtigheidCodelijst</b>		<b>OID: 2.16.840.1.113883.2.4.3.11.60.40.2.19.2.3</b>		
Concept Name	Concept Code	CodeSys. Name	CodeSystem OID	Description
Droge wond	DROOG	WondVochtigheid	2.16.840.1.113883.2.4.3.11.60.40.4.7.3	Droge wond
Vochtige wond	VOCHTIG	WondVochtigheid	2.16.840.1.113883.2.4.3.11.60.40.4.7.3	Vochtige wond
Natte wond	NAT	WondVochtigheid	2.16.840.1.113883.2.4.3.11.60.40.4.7.3	Natte wond

## 1.8 Example Instances

Wond	
WondSoort	Chirurgische wond
AnatomischeLocatie	Bovenbuik rechts
WondOntstaansdatum	10-10-2014
WondWeefsel	Gele wond
WondInfectie	Nee
WondVochtigheid	Vochtige wond
WondRand	Ondermijning
Wondlengte	5 cm
Wondbreedte	2 cm
Wonddiepte	1 cm
DatumLaatsteVerbandwissel	18-10-2014
Behandeling	
Activiteit	Dagelijks behandelen met jodium, niet klevend gaasverband en hydrofyber.
Toelichting	Wond lekt steeds minder.

## 1.9 Instructions

## 1.10 Interpretation

## 1.11 Care Process

## 1.12 Example of the Instrument

## 1.13 Constraints

## 1.14 Issues

## 1.15 References

1. Richtlijn Wondzorg (Nederlandse Vereniging voor Heelkunde, 2013) [Online] Beschikbaar op: <http://www.heelkunde.nl/uploads/o1/hl/o1hIRR2oR4QDojTm5pGjGA/Richtlijn-Wondzorg-final.pdf> [Geraadpleegd: 13 februari 2015]
2. Richtlijn Oncologische ulcera (2010) [Online] Beschikbaar op: [http://www.oncoline.nl/index.php?pagina=/richtlijn/item/pagina.php&id=32570&richtlijn\\_id=769](http://www.oncoline.nl/index.php?pagina=/richtlijn/item/pagina.php&id=32570&richtlijn_id=769) [Geraadpleegd: 13 februari 2015]
3. WCS [Online] Beschikbaar op: [www.wcs.nl](http://www.wcs.nl) [Geraadpleegd: 13 februari 2015]
4. Oncoline [Online] Beschikbaar op: [www.oncoline.nl](http://www.oncoline.nl) [Geraadpleegd: 13 februari 2015]

## 1.16 Functional Model

## 1.17 Traceability to other Standards

## 1.18 Disclaimer

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