

Diabetic Foot Ulcer database

Codebook

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Research group THUAS

Lectoraat Data Science
Faculty IT & Design
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Database owner (THUAS collaboration partner)

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Auteur(s)

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Datum

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Status

Definitief

Versie

2.0

General information

Variable	Variable label	Value labels
Categorical		
Gender	Gender	1. Male 2. Female 3. Other
Ethnicity	Ethnicity (Estimated)	1. Caucasisch 2. Hindoestaans 3. Negroide 4. Aziatisch 5. Latijns-Americaans 6. Noord-Afrikaas 7. Other 8. Unknown
Smoking	Smoking status	1. Never smoked 2. Stopped smoking 3. Current smoker
Alcoholuse	Alcohol use	1. Never drunk 2. Stopped drinking 3. Current drinker
DiabetesType	Diabetes Type	1. Type 1
DiabetesMedication	Diabetes Medication	<i>More than one option possible</i> Dapagliflozine Dulaglutide Glibenclamide Gliclazide Glimepiride Metformine Mycofenolaat Pioglitazon Tolbutamide

Variable	Variable label	Unit
Continuous		
Amountofalcohol	Amount of alcohol	Alcohol units (reflecting 10 ml of pure alcohol)
Ageyears	Age	years
Amountofsigarettes	Smoking frequency (1)	amount of sigarettes per day
Packyears	Smoking frequency (2)	packyears
Durationofdiabetes	Duration of diabetes	Months
Durationofinsulinuse	Duration of insulin use	Months
AverageserumHbA1c	Average serum HbA1c	mmol HbA1c/ mol serum
<i>An average serum HbA1c of ≤ 53 mmol/mol reflects a proper diabetes control</i>		

Health status and co-morbidities

Variable	Variable label	Value labels
Categorical		
COPD	COPD: : Chronic Obstructive Pulmonary Disease	0. No 1. Yes
COPDGOLDstadium	COPD stage according to the GOLD classification	1. Mild (stage I) 2. Moderate (stage II) 3. Severe (stage III) 4. Very severe (stage IV)
Kidneydialysis	Kidney dialysis	0. No 1. Yes

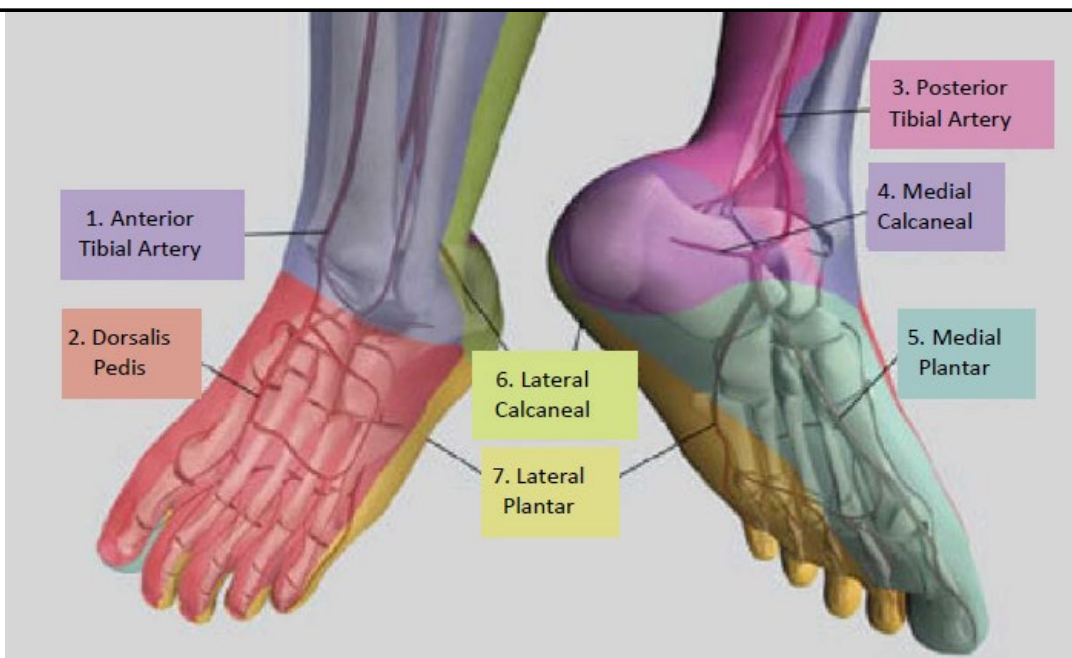
Variable	Variable label	Unit
Continuous		
AverageserumHb	Average serum Hemoglobin (Hb)	mmo/l
AverageserumeGFR	Average serum estimated	ml/min
AverageO2saturationlevel	Average Oxygen saturation level	%
Averagesystolicbloodpressure	Average systolic blood pressure	mmHg
Averagediastolicbloodpressure	Average diastolic blood pressure	mmHg
LVEF	Left Ventricle Ejection Fraction	%

Cut offs		
AverageserumHb	< 7.2 mmol/l	Anemia
AverageserumeGFR	< 90 ml/min	Renal function loss
Stages renal function loss		
	Mild loss	60 - 89%
	Moderate loss	30 - 59%
	Severe loss	15 - 30%
	Failure	< 15%
LVEF	< 40%	Heart failure
COPD GOLD stadia		
	I. Mild	> 80 %
	II. Moderate	50 - 80 %
	III. Severe	30 - 50 %
	IV. Very severe	< 30 %
Averagesystolicbloodpressure	> 90 mmHg +	Hypertension
Averagediastolicbloodpressure	> 140 mmHg	

Wound characteristics

Variable	Variable label	Value labels
Categorical		
WoundInfection	Wound Infection	1. Yes 2. No
TexasWoundClassification	Wound categorie based on the Texas Wound Classification system	Combination of Grade and Stage Grades 0. Pre-ulcerative lesions. No skin break 1. Superficial wound. No skin penetration 2. Wound penetrating to tendon or capsule 3. Wound penetrating to bone or joint Stages A. Neither infection nor ischemia B. With infection C. With ischemia D With infection and ischemia
Locationofwound	Location of Wound	1. Anterior Tibial Artery 2. Dorsalis Pedis 3. Posterior Tibial Artery 4. Medial Calcaneal 5. Medial Plantar 6. Lateral Calcaneal 7. Lateral Plantar <i>Note: in case of more than 1 wound at the same foot, the dominant wound is classified.</i>
Ischemicandorneuropathicwound	Nature of the wound: ischemic and/or neuropathic	1. Ischemic (limited blood supply) 2. Neuropatic (dmaged nerves) 3. Combination of the abovementioned
Medicationaffectingwoundhealing	Medication affecting wound healing	Open answer field, more than one option possible. a.o.: Cellcept Fludrocortison Prograft Chemotherapie Dexamethason Everolimus
Patentpedalarch	Presence of a pedal arch measurement	0: No 1: Yes

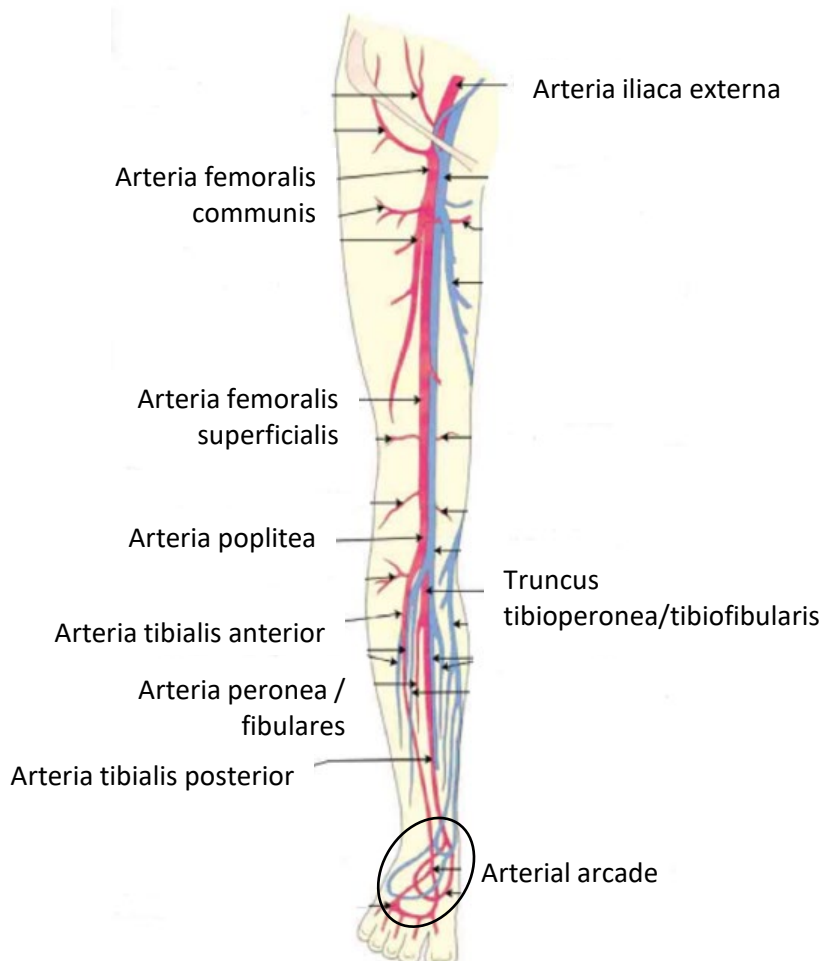
Variable	Variable label	Unit
Continuous		
Woundareameasurement	Wound area	cm2
Degreeofsloughmeasurement	Degree of slough measurement	%
Degreeofnecrotictissuemeasurement	Degree of necrotic tissue measurement	%



CT scan details (1)

Variable	Variable label	Unit
Continuous		
Toepressureaffectedside	2.22 Toe pressure affected side	mmHg
Toepressurecontralateralside	2.23 Toe pressure contralateral side	mmHg
ABPIaffectedside	2.24 Ankle Brachial Pressure Index affected side	mmHg
ABPIcontralateralside	2.25 Ankle Brachial Pressure Index contralateral side	mmHg
Categorical		
CTA	3.1 CTA scan available?	0: No; 1: Yes
Radiologyreportcta	3.3. CT scan results	0: No; 1: Yes
Radiologyreportcta#AIEAFC	Scan result of the AIE/ AFC	0. No obstruction; 1 obstruction
Radiologyreportcta#AFS	Scan result of the AFS	0: No obstruction; 1: obstruction
Radiologyreportcta#APOP	Scan result of the APOP	0: No obstruction; 1: obstruction
Radiologyreportcta#ATA	Scan result of the ATA	0: No obstruction; 1: obstruction
Radiologyreportcta#ATP	Scan result of the ATP	0: No obstruction; 1: obstruction
Radiologyreportcta#APER	Scan result of the APER	0: No obstruction; 1: obstruction
Radiologyreportcta#ARCADE	Scan result of the ARCADE	0: No obstruction; 1: obstruction
Radiologyreportcta#Truncus	Scan result of the Truncus	0: No obstruction; 1: obstruction

Abbreviations	
AIE	Arteria iliaca externa
AFC	Arteria femoralis communis
AFS	Arteria femoralis superficialis
AP	Arteria poplitea
ATA	Arteria tibialis anterior
ATP	Arteria tibialis posterior
APER	Arteria peronea/fibulares
ARCH	Arterial arcade
Truncus	Truncus tibioperonea/tibiofibularis



CT scan details (2)

Variable	Variabel label	Value labels
<i>Details of the obstructions</i>		
Open = not obstructed		
Stenose = partly obstructed		
Occlusie = fully obstructed		
Open collatarale = alternate circulation around the obstructed artery		
AIEAFC#Open	Scan detail of the AIE/AFC: Open	0: No ; 1: Yes
AIEAFC#Stenose	Scan detail of the AIE/AFC: Stenose	0: No ; 1: Yes
AIEAFC#Occlusie	Scan detail of the AIE/AFC: Occlusion	0: No ; 1: Yes
AIEAFC#Open_collaterale	Scan detail of the AIE/AFC: Open collaterale	0: No ; 1: Yes
AFS#Open	Scan detail of the AFS: Open	0: No ; 1: Yes
AFS#Stenose	Scan detail of the AFS: Stenose	0: No ; 1: Yes
AFS#Occlusie	Scan detail of the AFS: Occlusion	0: No ; 1: Yes
AFS#Open_collaterale	Scan detail of the AFS: Open collaterale	0: No ; 1: Yes
APOP#Open	Scan detail of the APOP: Open	0: No ; 1: Yes
APOP#Stenose	Scan detail of the APOP: Stenose	0: No ; 1: Yes
APOP#Occlusie	Scan detail of the APOP: Occlusion	0: No ; 1: Yes
APOP#Open_collaterale	Scan detail of the APOP: Open collaterale	0: No ; 1: Yes
ATA#Open	Scan detail of the ATA: Open	0: No ; 1: Yes
ATA#Stenose	Scan detail of the ATA: Stenose	0: No ; 1: Yes
ATA#Occlusie	Scan detail of the ATA: Occlusion	0: No ; 1: Yes
ATA#Open_collaterale	Scan detail of the ATA: Open collaterale	0: No ; 1: Yes
APER#Open	Scan detail of the APER: Open	0: No ; 1: Yes
APER#Stenose	Scan detail of the APER: Stenose	0: No ; 1: Yes
APER#Occlusie	Scan detail of the APER: Occlusion	0: No ; 1: Yes
APER#Open_collaterale	Scan detail of the APER: Open collaterale	0: No ; 1: Yes
ATP#Open	Scan detail of the ATP: Open	0: No ; 1: Yes
ATP#Stenose	Scan detail of the ATP: Stenose	0: No ; 1: Yes
ATP#Occlusie	Scan detail of the ATP: Occlusion	0: No ; 1: Yes
ATP#Open_collaterale	Scan detail of the ATP: Open collaterale	0: No ; 1: Yes
ARCH#Open	Scan detail of the ARCH: Open	0: No ; 1: Yes
ARCH#Stenose	Scan detail of the ARCH: Stenose	0: No ; 1: Yes
ARCH#Occlusie	Scan detail of the ARCH: Occlusion	0: No ; 1: Yes
ARCH#Open_collaterale	Scan detail of the ARCH: Open collaterale	0: No ; 1: Yes
TRUNCUS#Open	Scan detail of the TRUNCUS: Open	0: No ; 1: Yes
TRUNCUS#Stenose	Scan detail of the TRUNCUS: Stenose	0: No ; 1: Yes
TRUNCUS#Occlusie	Scan detail of the TRUNCUS: Occlusion	0: No ; 1: Yes
TRUNCUS#Open_collaterale	Scan detail of the TRUNCUS: Open collaterale	0: No ; 1: Yes

Treatment details (1)

Variable	Variable label	Value labels
<i>Types of treatment</i>		
Debridementsurgery	Surgery to properly clean the wound	0: No 1: Yes
Surgicalrevascularization	Surgical revascularisation (bypass)	
Typeofsurgicalrevascularization	Type of surgical vascularisation	N/A: Open text field
HyperbaricOxygenationTherapy	Hyperbaric Oxygenation Therapy (supportive, non evidence based treatment, HBOT)	0: No 1: Yes
NumberofcompletesessionsofHBOT	Number of complete HBOT sessions	Count
Revascularisation	Endorevascularisation, often via percutaneous Transluminal Angioplasty (PTA, in Dutch 'dotteren')	<i>Details on the next page</i>
SecondPTA	Second endorevascularisation via PTA	

<i>Clinical outcomes</i>		
Completestoundhealing	Complete healing of the wound	0: No; 1: Yes
Mortality	Mortality	0: No; 1: Yes
Amputation	Amputation (first)	0: No; 1: Yes
Reamputation	Amputation (second)	0: No; 1: Yes
Secondreamputation	Amputation (third)	0: No; 1: Yes
Number of amputations	Number of amputations	Count

<i>Clinical outcome details (could be repeated)</i>		
Levelofamputation	Level of the amputation	1. Toe amputation 2. TMTA of one toe 3. TMTA of multiple toes 4. TMT of the forefoot 5. Proximal forefoot 6. Transtibial foot 7. Transfemoral foot 8. Knee
Levelofreamputation	Level of the second amputation	See 'level of amputaion'

Treatment details (2)

Variable	Variabel label	Value labels
<i>Details of revascularisation via stent</i>		
Locationofstent#Segment_0	Stent located at segment 0	0: No; 1: Yes
Locationofstent#Segment_1	Stent located at segment 1	0: No; 1: Yes
Locationofstent#Segment_2	Stent located at segment 2	0: No; 1: Yes
Locationofstent#Segment_3A	Stent located at segment 3a	0: No; 1: Yes
Locationofstent#Segment_3B	Stent located at segment 3b	0: No; 1: Yes
Locationofstent#Segment_3C	Stent located at segment 3c	0: No; 1: Yes
Locationofstent#Segment_3D	Stent located at segment 3d	0: No; 1: Yes
Locationofstent#Segment_4	Stent located at segment 4	0: No; 1: Yes

<i>Segments explained</i>		
Artery	Segment	Abbreviations
Arteria iliaca externa	Segment 0	AIE
Arteria femoralis communis	Segment 0	AFC
Arteria femoralis superficialis	Segment 1	AFS
Arteria poplitea	Segment 2	AP
Arteria tibialis anterior	Segment 3a	ATA
Arteria peronea/fibulares	Segment 3b	APER
Arteria tibialis posterior	Segment 3c	ATP
Truncus tibioperonea/tibiofibularis	Segment 3d	Truncus
Arterial arcade	Segment 4	Arcade

<i>Succesful treatment effects</i>		
SuccesfulSegment#Segment_0	First stent successful in segment 0	0: No; 1: Yes
SuccesfulSegment#Segment_1	First stent successful in segment 1	0: No; 1: Yes
SuccesfulSegment#Segment_2	First stent successful in segment 2	0: No; 1: Yes
SuccesfulSegment#Segment_3A	First stent successful in segment 3a	0: No; 1: Yes
SuccesfulSegment#Segment_3B	First stent successful in segment 3b	0: No; 1: Yes
SuccesfulSegment#Segment_3C	First stent successful in segment 3c	0: No; 1: Yes
SuccesfulSegment#Segment_3D	First stent successful in segment 3d	0: No; 1: Yes
SuccesfulSegment#Segment_4	First stent successful in segment 4	0: No; 1: Yes
Succesfulsegmentsecond#Segment_0	Second stent successful in segment 0	0: No; 1: Yes
Succesfulsegmentsecond#Segment_1	First stent successful in segment 1	0: No; 1: Yes
Succesfulsegmentsecond#Segment_2	First stent successful in segment 2	0: No; 1: Yes
Succesfulsegmentsecond#Segment_3A	First stent successful in segment 3a	0: No; 1: Yes
Succesfulsegmentsecond#Segment_3B	First stent successful in segment 3b	0: No; 1: Yes
Succesfulsegmentsecond#Segment_3C	First stent successful in segment 3c	0: No; 1: Yes
Succesfulsegmentsecond#Segment_3D	First stent successful in segment 3d	0: No; 1: Yes
Succesfulsegmentsecond#Segment_4	First stent successful in segment 4	0: No; 1: Yes

Treatment details (3)

Variable	Variabel label	Value labels
<i>Unsuccesfull treatment effects</i>		
UnsuccessfulSegment#Segment_0	First stent unsuccessful in segment 0	0: No; 1: Yes
UnsuccessfulSegment#Segment_1	First stent unsuccessful in segment 1	0: No; 1: Yes
UnsuccessfulSegment#Segment_2	First stent unsuccessful in segment 2	0: No; 1: Yes
UnsuccessfulSegment#Segment_3A	First stent unsuccessful in segment 3a	0: No; 1: Yes
UnsuccessfulSegment#Segment_3B	First stent unsuccessful in segment 3b	0: No; 1: Yes
UnsuccessfulSegment#Segment_3C	First stent unsuccessful in segment 3c	0: No; 1: Yes
UnsuccessfulSegment#Segment_3D	First stent unsuccessful in segment 3d	0: No; 1: Yes
UnsuccessfulSegment#Segment_4	First stent unsuccessful in segment 4	0: No; 1: Yes
Unsuccessfulsegmentsecond#Segment_0	Second stent unsuccessful in segment 0	0: No; 1: Yes
Unsuccessfulsegmentsecond#Segment_1	First stent unsuccessful in segment 1	0: No; 1: Yes
Unsuccessfulsegmentsecond#Segment_2	First stent unsuccessful in segment 2	0: No; 1: Yes
Unsuccessfulsegmentsecond#Segment_3A	First stent unsuccessful in segment 3a	0: No; 1: Yes
Unsuccessfulsegmentsecond#Segment_3B	First stent unsuccessful in segment 3b	0: No; 1: Yes
Unsuccessfulsegmentsecond#Segment_3C	First stent unsuccessful in segment 3c	0: No; 1: Yes
Unsuccessfulsegmentsecond#Segment_3D	First stent unsuccessful in segment 3d	0: No; 1: Yes
Unsuccessfulsegmentsecond#Segment_4	First stent unsuccessful in segment 4	0: No; 1: Yes

Date variables

Variable	Variable label
Dates	
Dateofinjury	Date of injury
StartdateoftreatmentatWEC	Start date of treatment at Wound Expert Clinic
DateofCTA	Date of CT scan
Dateofcompletewoundhealing	Date of complete wound healing
Dateofdeath	Date of death
<i>Repeated measures</i>	
Dateofrevascularization	Date of first revacularisation
Dateofsecondrevascularization	Date of second revacularisation
....	Date of last revascularisation
Dateofamputation	Date of first amputation
Dateofreamputation	Date of second amputation (first re-amputation)
Dateofsecondreamputation	Date of third amputation
....	Date of last amputation