

Diseases

Friday, 19 May 2023 14.59

All diagnoses are extracted with diagnose types A and B, and patienttypes 0 1 2

IDC-10 diagnose codes can be checked here: <http://www.diagnosekoder.dk>

See Schmidt, M., Schmidt, S. S. A. J., Sandegaard, J. L. J., Ehrenstein, V., Pedersen, L., Sørensen, H. T., ... Sørensen, H. T. (2015). The Danish National Patient Registry: a review of content, data quality, and research potential. Clinical Epidemiology, 7, 449–90. <http://doi.org/10.2147/CLEP.S91125> for comprehensive overview on validation studies on discharge codes. You may find the paper in Mendeley in the Danish Registers folder.

Følgende koder og diagnoser er allerede beskrevet (kombineret SDS og DS 27/6-2017 og ensartet navngivning)

(5/7-2017 ændret operationskoder til altid at bruge foranstillet K):

Use lowercase in SAS, then you can copy the line directly to stata.

Diseases

NB: Not all countries use the same subclassifications after the fourth digit; some countries use „A“ to indicate „Exclusion“, „G“ for „Confirmed diagnosis“, „V“ for „Tentative diagnosis“, this could cause confusion.

Code prefix	ICD-8 codes	ICD-10 codes	Disease
acutpan		K85	Pancreatitis, acute
afli	42793 42794	I48	Atrial Fibrillation
aflis		I480 I481 I482 I489B	Atrial Fibrillation - specific
aflu		I483 I484 I489A	Atrial Flutter
aids		B21 B22 B23 B24	HIV/AIDS
alco (NY)		F100 F101 F102 F103 F104 R780 T500A T51 X65 Z714 Z721 Z358M10 Z39310 Z3932 Z502	Alcohol abuse (Chalotte/Torben, 1/1-2021)
alcorel (NY)		E244 E529A F105 F106 F107 F108 F109 G312 G621 G721 I426 K292 K70 K852 K860 L278A O354 P043	Alcohol related diseases (Chalotte/Torben, 1/1-2021)
alco	30309 30319 30320 30328 30329 30390 57110 57301 57710	E244 E529A F10 G312 G621 G721 I426 K292 K70 K860 L278A O354 T51 Z714 Z721	Alcohol related diseases
anemia	280 281 282 283 284 285	D5 D60 D61 D62 D63 D64	Anemia
antiphos		D686	Antiphospholipid antibody syndrome
aplaq		I700	Aortic plaque
avblo		I441 I442 I443	AV Block
ca	42727	I46	Cardiac arrest
cancer		C	Cancer
cancer1		C1 C2 C3 C40 C41 C42 C43 C45 C46 C47 C48 C49 C5 C6 C7 C8 C9	Cancer - excluding C44
carmyo		I42 I43	Cardio myopathy
ceramy		I680	Cerebral Amyloid

			angiopati
cf		E84	Cystic fibrosis
chd		Q20 Q21 Q22 Q23 Q24 I424A	Congenital heart disease (medfødte hjertemisdannelser)
chrglome	582 583	N02 N03 N05 N06 N07	Chronic glomerulonephritis (renal)
chrtunep	59009 59320	N11 N12 N14 N158 N159 N160 N163 N164 N169	Chronic tubulointestinal nephropathy (renal)
circdis		I870	Other circulatory disorders
cognit		F06	Cognitive impairment
copd (NY)		J44	Chronic obstructive pulmonary disease (KOL) (Torben/Thomas Decker, 1/1-2021)
cpd		J40 J41 J42 J43 J44 J45 J46 J47 J60 J61 J62 J63 J64 J65 J67 J684 J701 J703 J841 J920 J921 J982 J983	CPD - Chronic Obstructive Pulmonary Disease (KOL)
cpd1		J44	Chronic Obstructive Pulmonary Disease
cpd2	490 491 492	J961 J40 J41 J42 J43 J44	Chronic Obstructive Pulmonary Disease
crenal	24902 25002 582 583 584 59009 59320 75309 75310 75311 75319 792	E102 E112 E142 I120 I131 I132 I150 I151 N03 N05 N06 N07 N08 N110 N14 N15 N16 N18 N19 N26 N27 N280 N391 Q61	Chronic kidney disease
diablpr (NY)	249 250	E10 E11 E12 E13 E14 H360 O240 O241 O242 O243	Diabetes mellitus, broad definition (Thure/Torben, 1/1-2021)
diabcomp (NY)		E102 E103 E104 E105 E106 E107 E108 E112 E113 E114 E115 E116 E117 E118 H360	Diabetes with chronic complications (Thure/Torben, 1/1-2021)
diablpr	24900 24909 25008 25009	E100 E101 E109 E110 E111 E119	Diabetes mellitus
diab2lpr	24900 24909 25008 25009	E10 E11	Diabetes mellitus
diab3lpr	24900 24901 24902 24903 24904 24905 24906 24907 24908 24909 25000 25001 25002 25003 25004 25005 25006 25007 25008 25009	E10 E11 E14	Diabetes mellitus
diab4lpr	7611 250	E10 E11 E14	Diabetes mellitus
diab5lpr		E12	Diabetes forårsaget af underernæring
diab6lpr		E13	Diabetes, andre former

diabgest		O244	Gestationel Diabetes
diabkata		H280	Diabetisk katarakt
diabnep	25002	E102 E112 E132 E142 N083	Renal - Diabetic nephropathy
diabpoly		G632	Diabetisk polyneuropati
diabreti		H360	Diabetisk retinopati
diabund er		E12	Diabetes foårsaget af underernæring
drenal		Z992	Dependence on renal dialysis
dvtall (NY)		I636 I676 I801 I802 I803 I808 I809 I819 I822 I823 I828 I829 O223 O229 O871 O879	Deep venous thrombosis, broad definition (Ida/Chalotte, 1/1-2021)
dvtstr (NY)		I801 I802 I803 I808 I809	Deep venous thrombosis, strict definition (Ida/Chalotte, 1/1-2021)
dvt	451	I801 I802 I803 I808 I809 I819 I636 I676 I822 I823 I828 I829	DVT
dvt1		I801 I802 I803 I808 I809 I822 I823 I829	Deep Venous Thrombosis
epi		G40	Epilepsy
gbleed	53091 53098 531 532 533 534	K25 K26 K27 K28 K29	Gastrointestinal bleeding
gbleed2	53091 53098 531 532 533 534	K250 K252 K254 K260 K262 K264 K270 K272 K274 K280 K282 K290 K921 K922	Gastrointestinal bleeding, strict version
gibleed		I850I 864A K226 K228F K250 K252 K254 K256 K260 K262 K264 K266 K270 K272 K274 K276 K280 K282 K284 K286 K290 K298A K625 K638B K638C K661 K838F K868G K920 K921 K922	Gastrointestinal bleeding, October 2020 (arbejdsgruppe)
genblee d		D500 D62 D683 D698 D699 R58 T792A T792B	General bleeding, October 2020 (arbejdsgruppe)
gout		M16 M17	Rheumatoid diseases
gubleed		N830A N920 N924 N938 N939 N02 R31	Genitourinary bleeding, October 2020 (arbejdsgruppe)
hbleed		N488D N488E N501A N501B N501C N501D N501E N831A N837 N857 N857A N897A N908D S003A S378A S601A S902A T140D T140K T810A T876D	Haematoma, October 2020 (arbejdsgruppe)
hcimp		Z95	Heart or cardiac

			implants or crafts
hemato		N02 R319	Hematuri
hfall (NY)		I110 I130 I132 I420 I50 I426 I427 I429	Heart failure, broad definition (incl. cardiomyopathies) (Line/Thure, 1/1-2021)
hfstr (NY)		I110 I130 I132 I420 I50	Heart failure, strict definition (excl. some cardiomyopathies) (Line/Thure, 1/1-2021)
hf	42709 42710 42711 42719 42899 78249	I110 I130 I132 I50	Congestive heart failure
hf2	42709 42710 42711 42719 42899 78249	I110 I130 I132 I420 I50	Congestive heart failure, version 2
hf3	42401 42402 42408 42409 42411 42418 42419 42490 42491 42492 42499 42599 424709 42711 42719	I34 I35 I36 I37 I42 I43 I50	Congestive heart failure - Vadman version
hyplpr (NY)	400 401 402 403 404	I10 I11 I12 I13 I15	Hypertension (Thure/Torben, 1/1-2021)
hypnep	40039 403 404	I120	Renal - Hypertensive nephropathy
hypthy	24200 24208 24209 24219 24220 24228 24229	E05 E06	Hyperthyroidism
ibleed	430 431	I60 I61 I62	Haemorrhagic stroke / Intracranial bleeding
icbleed		I60 I61 I62 I690 I691 I692	Intracranial bleeding, October 2020 (arbejdsgruppe)
ihd (NY)		I20 I21 I23 I24 I25	Ischemic heart disease (Chalotte/Ida, 1/1-2021)
imblee d		E078B E274B G951A I312 I319A I230 J942 M250 R04 S259A S368A S368B S368D T143C T144A	Bleeding in other important organ system, October 2020 (arbejdsgruppe)
infbowel	563	K50 K51	Inflammatory bowel disease
intermit	44389 44390 44391 44392 44393 44394 44395 44396 44397 44398 44399	I739	Intermittent claudication
ischd	41009 41099 41109 41199 41209 41299 41309 41399 41409 41499	I20 I21 I22 I23 I24 I25	Ischemic heart diseases
istroke	43300 43309 43409 43499 43601 43690	I63 I64 (ingen registreringer på I64.0, kun I64.9)	Stroke
kidtralpr		Z940	Kidney transplantation status
lbleed		J942 R04 S259A	Bleeding related to

			respiratory/lung/thorax, use together with Lbleedopr, October 2020 (arbejdsgruppe)
liver (NY)		B150 B160 B162 B18 B190 I85 K700 K701 K702 K703 K704 K709 K71 K72 K73 K74 K760 K766	Clinically relevant liver disease (Thure/Torben, 1/1-2021)
liver	07000 07002 07004 07006 07008 57300 4560	B150 B160 B162 B190 K704 K72 K766 I85	Moderate/severe liver Disease
lvd	4271	I501 I509	LVD
mbleed1		D629 J942 N02 R04 R31 R58	Extracranial or unclassified major bleeding version 1
mbleed2		D629 J942 R04 R310 R58	Extracranial or unclassified major bleeding version 2 without hematori UNS
mbleed3		D62 J942 H113 H356 H431 N02 R04 R31 R58	Extracranial or unclassified major bleeding version 3
miall (NY)		I21 I23 I24	Myocardial infarction, broad definition (Chalotte/Ida, 1/1-2021)
mistr (NY)		I21	Myocardial infarction, strict version (Chalotte/Ida, 1/1-2021)
mi	410	I21 (I22 bruges ikke) I23	Myocardial infarction
mi2	410	I21	Myocardial infarction STRICT VERSION
minbleed		H922 K089A K645 N921 N950 S098A	Other/minor bleeding, October 2020 (arbejdsgruppe)
mitrheu (NY)		I05 I080A I081A I083A	Rheumatic mitral valve disease (Line/Thure, 1/1-2021)
mitsten (NY)		I050 I052 I342	Mitral stenosis, rheumatic and non-rheumatic (not congenital mitralstenosis) (Line/Thure, 1/1-2021)
mitsten		I05	Mitral stenosis
mrenal		R809	Renal - Mild renal impairment - proteinuria
muscu		G71	Muscular impairment
myelodis	208 2871	D45 D473	Myeloproliferative disorders

neoplas m	14 15 16 17 18 19 200 201 202 203 204 205 206 207 208 209	C0 C1 C2 C3 C4 C5 C6 C7 C8 C90 C91 C92 C93 C94 C95 C96	Neoplasm
nephsyn dr		N04	Nephrotic syndrome
neschren	25002 40039 403 404 581 582 583 584 59009 59320 75310 75311 75319	E102 E112 E132 E142 I120 M321B M300 M313 M319 N02 N03 N04 N05 N06 N07 n08 N11 N12 N14 N158 N159 N160 N162 N163 N164 N168 N18 N19 N26 Q612 Q613 Q615 Q619	Non-end-stage chronic kidney disease
oacuthd		I24	Other acute heart diseases
ocbleed		H052A H313 H356 H431 H450	Intraocular bleeding, October 2020 (arbejdsgruppe)
obeseall (NY)		E65 E66 E67 E68	Obesity (inkl. „følger af overvægt“ og „anden overernæring“) (Ida/Thure, 1/1-2021)
obese25 (NY)		E65 E66	Obesity (BMI >= 25) (Ida/Thure, 1/1-2021)
obese30 (NY)		E660B E660C E660D E660E E660F E660G E660H	Obesity (BMI >= 30) (Ida/Thure, 1/1-2021)
obese	27799	E65 E66	Obesity (tidligere også adipo på DS)
obese1	277	E660B E660C E660D E660E E660F E660G E660H	Obesity
obese2		E65 E66 E67 E68	Obesity (tidligere også adipo på SDS)
ofrac		M80	Osteoporotic fracture - general
ofrach		M809b	Osteoporotic fracture - hip
ofracv		M809A	Osteoporotic fracture - vertebra
ofracw		M809C	Osteoporotic fracture - wrist
opbleed		T810B T810C T810E T810F T810G T810H T810I T810J T810K T811A T811B T818F	Peroperative and postoperative bleeding, October 2020 (arbejdsgruppe)
ost		M81 M82	Osteoporosis
otherhd		I3 I4 I50 I51 I52	Other heart diseases
padall (NY)		I70 I73 I74	Peripheral arterial disease, broad definition (Chalotte/Nikolaj, 1/1-2021)
padstr		I702 I739A I739C I74	Peripheral arterial

(NY)			ishcemic disease, strict definition (Chalotte/Nikolaj,1/1-2021)
pademb o (NY)		I74	Peripheral arterial thromboembolism, for S2 in CHA2DS-VASc (Chalotte/Nikolaj, 1/1-2021)
padvasc (NY)		I700 I702 I708 I709 I739	Peripheral vascular/ischemic disease and aortic plaque, used in CHA2DS2-VASc (Chalotte/Nikolaj, 1/1-2021)
pad	440 441 442 443 444 445	I70 I71 I72 I73 I74 I77	Peripheral vascular/ischemic disease
pad2	440 441 442 443 444 445	I702 I703 I704 I705 I706 I707 I708 I709 I71 I739 I74	Peripheral vascular/ischemic disease version 2 limited codes
pad3	440 441 442 443 444 445	I702 I703 I704 I705 I706 I707 I708 I709 I71 I739	Peripheral vascular/ischemic disease version 3 for part of VASc in chadsvasc
pain		M796	Pain
pcos		E282	Polycystic ovarian syndrome (PCOS)
pe	450	I26	Pulmonary embolism
peta		I30 I312 I313	Perikardie temponade
plate	286 287 288 289	D65 D66 D67 D68 D69	Platelet defect (comment as Anemia)
pmicd		Z950	Pacemaker
pnh		D595	Paroxysmal nocturnal hemoglobinuria
pneu (NY)		J12 J13 J14 J15 J16 J17 J18	Pneumonia (Torben/Thomas Decker, 1/1-2021)
pneu		J12 J13 J14 J15 J16 J17 J18 A481 A709	Pneumonia
pneu1	480 481 482 483 484 485 486 073 471	J12 J13 J14 J15 J16 J17 J18	Pneumonia
polyren	75310 75319	Q612 Q613 Q619	Adult polycystic kidney disease
pregblee d		O081G O208 O209 O441 O438E O469 O717 O72 O902	Pregnancy-related bleeding, October 2020 (arbejdsgruppe)

pregnacy	63 68	O0 O1 O2 O3 O4 O5 O6 O7 O8 O9	Pregnacy
pregpuer		Z33 O0 O1 O20 O21 O20 O21 O220 O221 O222 O223 O224 O226 O227 O228 O3 O4 O5 O6 O7 O80 O81 O82 O83 O84 O85 O86 O870 O872 O874 O875 O876 O877 O878 O9	Pregnacy or puerperium
pregvte		O223 O229 O871 O879 O882	Pregnacy related VTE
probleed		J950C N986	Procedure-related bleeding, use together with probleedopr, October 2020 (arbejdsgruppe)
pts		I870	Post thrombotic syndrome
rartrit		M05 M06	Reumatiod Arthritis
rheudis		M00 M01 M02 M03 M05 M06 M07 M08 M09 M10 M11 M12 M13 M14 M46 M47	Reumatic Disorder
renal (NY)		I12 I13 N00 N01 N02 N03 N04 N05 N07 N11 N14 N18 N19 Q61 N17	Renal disease (Thure/Torben, 1/1-2021)
renalchr (NY)		E102 E112 E142 I120 I131 I132 I150 I151 N03 N04 N05 N06 N07 N08 N11 N14 N15 N16 N18 N19 N26 N27 N391 Q61	Chronic renal disease (Thure/Torben, 1/1-2021)
renal	581 582 583 584 59009 59320 59321 59322	I12 I13 N00 N01 N02 N03 N04 N05 N07 N11 N14 N17 N18 N19 Q61	Renal - Moderate/severe renal Disease (SDS)
renal_kk h	403 404 580 581 582 583 584 59009 59319 7531 792	I12 I13 N00 N01 N02 N03 N04 N05 N07 N11 N14 N17 N18 N19 Q61	Renal - Moderate/severe renal Disease (Not implemented, but used in KKH002)
renal2	581 582 583 584 59009 59320 59321 59322	I12 I13 N00 N01 N02 N03 N04 N05 N07 N08 N11 N12 N140 N141 N142 N143 N144 N158 N160 N162 N163 N164 N168 N17 N18 N19 Q61 E102 E112 E132 E142	Moderate/severe renal Disease - Lines version fra bl.a. Olesen 2012 NEJM
renal3	582 583 584 5900 5901 5932	I12 I13 I150 I151 N00 N01 N03 N05 N07 N08 N11 N14 N15 N16 N18 N19 N26 N27 Q611 Q162 Q163 Q164	Renal Disease
renalst1		N181	Chronic kidney disease, stage 1
renalst2		N182	Chronic kidney disease, stage 2
renalst3		N183	Chronic kidney disease, stage 3
renalst4		N184	Chronic kidney disease,

			stage 4
renalst5		N185	Chronic kidney disease, stage 5
renalst9		N189	Chronic kidney disease, unspecified
se	444	I74	Systemic embolism (arterial thromboembolism)
senhb		I690 I691 I692	Senscade efter hjerneblødning
sepsis		A021 A282B A267 A327 A392 A392A A394 A400 A401 A402 A403 A408 A409 A41 A410 A411 A411A A412 A413 A414 A415 A418 A419 A427 A499A B377 R572	Sepsis (used in T051)
sepsis1		A40 A41	Sepsis
sevsepsis		A419C R572	Severe Sepsis and septic shock
sle		L93	Lupus Erythematosus
sliver	07000 07002 07004 07006 07008 57300 4560	B150 B160 B162 B190 K704 K72 K766 I85	Severe Liver Disease
stroke	431 432 433 434	I160 I61 I62 I64	Stroke (kombination af istroke og iblead)
syslupus		L93 M32	Systemic Lupus
syslupus 1	6954	L93	Lupus Erythematosus
swel		R600 R224 R223	Swelling of the limb
tachy	42790 42794	I471 I479	Atrial Tachycardia
tbleed		S063C S064 S065 S066 S068B S068D S141C S141D S141E S241D S241E S241F S341D S341E S341F	Traumatic CNS bleeding, October 2020 (arbejdsgruppe)
tendfall		R296	Tendency to fall
thromph i		D685	Inherited thrombophilia
tia	43509 43599	G45	Transient ischemic disease
tiBleed		S063C S064 S065 S066	Traumatic intercranial bleeding
tobleed		S003A S098A S259A S368A S368B S368D S378A T143C T792A T792B	Other traumatic bleeding (beyond traumatic CNS bleeding), October 2020 (arbejdsgruppe)
trauma	8 90 91 920 921 922 923 934 935 936 937 938 929 950 951 952 953 954 955 956 957 958 959 /	S T10 T11 T12 T13 T14	Fracture/Trauma
ua	413	I20	Unstable Angina (NB

			includes stable and unspecified angina!)
ulcer	53091 53098 531 532 533 534	K221 K25 K26 K27 K28	Ulcer Disease
unsnep	581 584	N04 N18 N19 N26	Renal - Unknown type nephropathy
uti		N30	Urinary tract infection
valve		Z952 Z953 Z954	Mecanical Heart Valve
varice		I830 I831 I832 I839	Lower extremity varicose veins
varivein	454	I83	Varicose veins
vteall (NY)		H348E H348F I26 I636 I676 I801 I802 I803 I808 I809 I81 I822 I823 I828 I829 O223 O225 O229 O871 O879 O873 O882 T817C T817D	Venous thromboembolism, broad definition (Ida/Chalotte, 1/1-2021)
vtestr (NY)		I26 I801 I802 I803 I808 I809	Venous thromboembolism, strict definition (Ida/Chalotte, 1/1-2021)
vte	450 45100 45108 45109 45190 45192 45199 45299 45302 45304 321 67101 67102 67103 67108 67109 67309 67319 67399	I26 I801 I802 I803 I808 I809 I828 I829 I81 I822 I823 I636 I676 H348E H348F O882 O223 O229 O871 O879 O225 K751 O873	Venus Thromboembolism
vte1		I26 I801 I802 I803 I808 I809 I828 I829 I822 I823 O223 O229 O871 O879 O882	Venus Thromboembolism

Educational Achievement

Friday, 19 May 2023 15.04

„ Educational achievement among longterm survivors of congenital heart defects: a Danish populationbased followup study

Morten Olsen, Vibeke E. Hjortdal, Laust H. Mortensen, Thomas D. Christensen, Henrik T. Sørensen and Lars Pedersen

Cardiology in the Young / Volume 21 / Issue 02 / February 2011, pp 197 203

DOI: 10.1017/S1047951110001769, Published online: 22 December 2010“

Der er Uddannelsesniveau klassificeret efter International Standard Classification of Education (ISCED 1997), og er inddelt i følgende niveauer;

- Niveau 2 - Grundlæggende skolegang, 9 eller 10 års obligatorisk undervisning,
- Niveau 3 – Ungdomsuddannelser, herunder gymnasium og erhvervsuddannelse
- Niveau 4 – Kort videregående uddannelse, gymnasiale suppleringskurser
- Niveau 5 – Mellemlange og lange videregående uddannelser
- (Niveau 6 - Avancerede forskningsprogrammer, ph.d. og doktorgrad)

Riskscores

Friday, 19 May 2023 15.04

When nothing else is agreed upon risk scores are defined as follows: Component refers to the Prefix's given above, present status is given value 1, else 0. Note for medication that status will depend on how treatment indication is defined, often we just look for at prescription in the last 3 months or 1 year before index date. As regards hospital diagnoses no time limit is used.

Score	Component	Prefix	weight
CHADS2	Heart failure	HFstr or (Loop and Renin)	1
	Hypertension	HypLPR or ((Alfa+NonLoop+Vaso+Beta+Calcium+Renin)>1 or combination drug>0)	1
	Age	age>75	1
	Diabetes	DiabLPR or DiabATC>1	1
	Stroke	ISroke or TIA	2

Redigér

Score	Component	Prefix	weight
CHA2DS2-VASc	Heart failure or LVD	HFstr or (Loop and Renin)	1
	Hypertension	HypLPR or ((Alfa+NonLoop+Vaso+Beta+Calcium+Renin)>1 or combination drug>0)	1
	Age	age>65	1
		age>75	1
	Diabetes	DiabLPR or DiabATC>1	1
	Stroke	ISroke or SE or TIA	2
	Vascular disease	MIstr or PADvasc	1
	Sex	Female sex	1

Redigér

Score	Component	Prefix	weight
HAS-Bled	Hypertension	HypLPR or ((Alfa+NonLoop+Vaso+Beta+Calcium+Renin)>1 or combination drug>0)	1
	Renal disease	Renal	1
	Liver disease	Liver	1
	Stroke	ISroke or TIA	1
	Bleeding	GIbleed or ICbleed or Impleed or Genbeed or Ocbleed	1
	Age	age>65	1
	Drugs	Aspirin or clopidogrel or NSAID (redemption within 6 months before idate)	1
	Alcohol	Alco (diagnosis within 6 months before idate)	1

Redigér

Score	Component	Prefix	weight
Atria Bleeding	Anemia	anemia	3

score			
	eGFR>30 or dialysis	renal	3
	Age	age>75	2
	Bleeding	IBleed or MBleed3 or GBleed2 or TIBleed	1
	Hypertension	(Alfa+NonLoop+Vaso+Beta+Calcium+Renin)>1	1

Redigér

Score	Component	Prefix	weight without prior stroke	weight with prior stroke
Atria Stroke score	Age	Age>=85	6	9
	Age	75≤Age<85	5	7
	Age	65≤Age<75	3	7
	Age	Age<65	0	8
	Sex	Female Sex	1	1
	Diabetes	diabLPR or diabATC	1	1
	Heart failure	diabLPR or diabATC	1	1
	Hypertension	(alfa + nonloop + vaso + calcium + renin)>1 or combination drug	1	1
	Proteinuria	Mrenal	1	1
	eGFR<45 pr ESRD	renal	1	1
	Diabetes	diabLPR or diabATC	1	1
	Stroke	Istroke* (used for age calculation)		

Redigér

Score	Component	Prefix	weight
Orbit score	Age	age>=75	1
	Anemia/Red.haem	anemia	2
	Bleeding	IBleed or MBleed3 or GBleed2 or TIBleed	2
	<60mL/min/1.73m2	Renal	1
	Antiplatelet	Aspirin or Thienpyrides	1

Comorbidity

Friday, 19 May 2023 15.03

Sometimes comorbidity is defined through a combination of hospital discharge information and medical treatment:

Condition	Prefix	ICD	ATC	Rule	Reference
Hypertension	HYPLprTreatment	HypIpr	Alfa NonLoop Vaso Beta Calcium Renin	ICD & at least 2 ATC groups	
Hypertension	HYPTreatment		Alfa NonLoop Vaso Beta Calcium Renin	At least 2 ATC groups	Olesen (10.1136/bmj.d124)
			C09BB04 Perindopril og amlodipin; C09DA Angiotensin II-antagonist og diuretika; C09DB Angiotensin II receptorblokker (ARBs) og kalciumantagonist; C09DX04 Valsartan og sakubitril; C07B Beta-receptorblokker og tiazider	or combination drug	
Heart failure	HFLprTreatment	HF2Ipr	loop = HFATC	HFLpr & loop	Olesen (10.1136/bmj.d124) excluding J819 but with I130 & I132

Charlson Cormorbidity Index

Friday, 19 May 2023 15.03

Reference: BMC Medical Research Methodology 2011: The predictive value of ICD-10 diagnostic coding used to assess Charlson comorbidity index conditions in the population-based Danish National Registry of Patients.

Sandra K Thygesen Email author, Christian F Christiansen, Steffen Christensen, Timothy L Lash and Henrik T Sørensen.

Weight	Disease	ICD-10	ICD-8
1	Myocardial infarction	I21 I22 I23	410
1	Congestive heart failure	I50 I110 I130 I132	42709 42710 42711 42719 42899 78249
1	Peripheral vascular disease	I70 I71 I72 I73 I74 I77	440 441 442 443 444 445
1	Cerebrovascular disease	I60 I61 I62 I63 I64 I65 I66 I67 I68 I69 G45 G46	430 431 432 433 434 435 436 437 438
1	Dementia	F00 F01 F02 F03 F051 G30	29009 29010 29011 29012 29013 29014 29015 29016 29017 29018 29019 29309
1	Chronic pulmonary disease	J40 J41 J42 J43 J44 J45 J46 J47 J60 J61 J62 J63 J64 J65 J66 J67 J684 J701 J703 J841 J920 J961 J982 J983	490 491 492 493 515 516 517 518
1	Connective tissue disease	M05 M06 M08 M09 M30 M31 M32 M33 M34 M35 M36 D86	712 716 734 446 13599
1	Ulcer disease	K221 K25 K26 K27 K28	53091 53098 531 532 533 534
1	Mild liver disease	B18 K700 K701 K702 K703 K709 K71 K73 K74 K760	571 57301 57304
1	Diabetes Mellitus	E100 E101 E109 E110 E111 E119	249 250
2	Hemiplegia	G81 G82	344
2	Moderate to severe renal disease	I12 I13 N00 N01 N02 N03 N04 N05 N07 N11 N14 N17 N18 N19 Q61	403 404 580 581 582 583 584 59009 59319 7531 792
2	Diabetes with chronic complications	E102 E103 E104 E105 E106 E107 E108 E112 E113 E114 E115 E116 E117 E118	24901 24902 24903 24904 24905 24908 25001 25002 25003 25004 25005 25008
2	Any tumor	C0 C1 C2 C3 C4 C5 C6 C70 C71 C72 C73 C74 C75	14 15 16 17 18 190 191 192 193 194
2	Leukemia	C91 C92 C93 C94 C95	204 205 206 207
2	Lymphoma	C81 C82 C83 C84 C85 C88 C90 C96	200 201 202 203 27559
3	Moderate to severe liver disease	B150 B160 B162 B190 K704 K72 K766 I85	07000 07002 07004 07006 07008 57300 4560
6	Metastatic solid tumor	C76 C77 C78 C79 C80	195 196 197 198 199
6	AIDS	B21 B22 B23 B24	07983

Redigér

Anne: Jeg vil opfordre jer, der anvender Charlson indexet, til at afprøve Hude Quans

opdaterede version.

Den er 10 år gammel, men valideret i adskillige settings på administrative data og ICD-10 koder. Se fx Am J Epidemiol, 2011: <https://pubmed.ncbi.nlm.nih.gov/21330339/>

Procedures

Friday, 19 May 2023 15.03

Procedure information from sksube

Prefix	SKS code	Operation
abla	BFFB	Ablation
afliab	BFFB04	Atrial fibrillation ablation
afluab	BFFB03	Atrial flutter ablation
angio	UXAG UXAC10	Angiography
cag	UXAC85	Coronary angiography (kranspulsåreundersøgelse)
ct	UXC	CT scan
ct1	UXCG UXCC	CT scan
ctlow	UXCG	CT examination of lower extremities
ctscan	UXCA	CT scan of the head
cvk	BMBZ61 BMBZ71 BMBZ51 BMLA01 BMBLA02 BMBLA03	Central venous catheter
dc	BFFA01	DC-konvertering
dialys	BJFD	Acute and chronic dialysis, haemo & peritoneal
dialys2	BJFD2	Dialysis in Chronic kidney disease, haemo & peritoneal
doppler	UXUG05	Doppler waveform analysis
ec	BFFA00 BFFA01 BFFA04	Electrical cardioversion
ecco	UXUC80 UXUC81	Ultrasonography including echocardiography
hrtube	BBHG0	Hormone replacement therapy
mr1ow	UXMG	MR examination of lower extremities
mrscan	UXMA	MR scan of the head
mrveno	UXZ52	MR venography
myelosks	ZM99503 ZM99623	Myeloproliferative disorders (polycythemia vera, essential thrombocytemia)
obesube	BQFT03 BQFS01	obesity
phlebo	UXAG05	Phlebography of lower extremities
pletys	WPVST	Venous plethysmography
pm	BFCA0 BFCA6 BFCA9	Pacemaker
radio	UX	General radiological procedures
ul1ow	UXUG	Ultrasound examination of lower extremities
ultra	UXU	Ultrasound examination
ventperf	WLHGS	Ventilation-perfusion examination

Operations

Friday, 19 May 2023 15.02

Operation information from sksope (Codes are with prefix K)

Prefix	SKS code	Operation
allopr	KA KB KF KG KH KJ KK KL KM KN KP	All operations (nix, der er undladt nogen) use Msurg
arrhyo	KFP	Heart arrhythm operations
arrhyt	KFPA KFPB KFPD KFPW	Hjerterytme operationer (færre koder end arrhyo)
cabg	KFNA KFNC KFND KFNE	CABG: Coronary artery bypass graft (bypass-operation)
caesar	KMCA	Caesarian section
chopr	KAA	Intra cranial procedure
fn	KFN	Percutaneous coronary intervention or coronary artery bypass craft
hip	KNFB KNFC KNFU	Hip replacement surgery
kidtra	KKAS00 KKAS10 KKAS20	Kidney transplant
knee	KNGB KNGC KNGU	Knee replacement surgery
kneeHip	KNGB KNGC KNGU KNFB KNFC KNFU	Knee / hip
lbleedopr	KGWD KGWD02 KGWE	Bleeding related to respiratory/lung/thorax, use together with Lbleed, October 2020 (arbejdsgruppe)
mechvalve	KFGE00 KFKD00 KFJF00 KFMD00	Mechanical heart valve
msurg	KA KB KD KF KG KH KJ KK KL KM KN KP	Major surgery (SDS name) others?
pci	KFNG	PCI: Percutaneous coronary intervention (ballonudvidelse)
pmicd	KFPG KFPE	Pacemaker / ICD (up to yr2000)
probleedopr	KAAB30 KAAD00 KAAD05 KAAD10 KAAD15 KABB40 KAWD KAWD00A KAWD KBWD KBWE KCKD90 KCWD KCWE KDWD	Procedure-related bleeding, use

	KDWE KEWD KEWE KFWD KFWE KGWD KGWD02 KGWE KHWD KHWE KJWD KJWE KKEV KKEV02 KKWD KKWE KLWD KLWE KMBC40 KMWD KMWE KNAW79 KNAW89 KNBW79 KNBW89 KNCW79 KNCW89 KNDW79 KNDW89 KNEW79 KNEW89 KNFW79 KNFW89 KNGW79 KNGW89 KNHW79 KNHW89 KPWD KPWE KQWD KQWE	together with Probleed, October 2020 (arbejdsgruppe)
valveo	KFG KFK KFM	Heart valve operation

Medication

Friday, 19 May 2023 15.01

Medication based comorbidity (By ATC codes):

Code prefix	ATC codes	Disease/treatment
ace	C09A	ACE-inhibitors
aldo	C03DA	Aldosterone antagonists
alfa	C02A C02B C02C	Alfa adrenic block
amio	C01BD01	Amiodarone
antiand	G03HB	Antiandrogens
antiThy	H03B	Antithyroids
apixa	B01AF02	Apixaban
arb	C09C	Angiotension II receptor blockers/antagonists
arolnhib	L02BG	Aromatase inhibitors
aspirin	B01AC06	Aspirin
benzo	N03AE N05BA N05CD N05CF	Benzodiazepines
beta	C07	Beta blocker
bloodlow	A10B	Blood glucose lowering drugs, excl. insulins
calcium	C07F C08 C09BB C09DB	Calcium channel blocker
carba	N03AF01	Carbamizipine
clarit	J01FA09	Clarithromycin
clomi	G03GB02	Clomifen
clopi	B01AC04	Clopidogrel
coumarin	B01AA	Coumarin derivatives (warfarin, phenprocoumon)
cyclo	L04AD01	Cyclosporine
dbgtran	B01AE07	Dabigatran
diabATC	A10	Antidiabetika - Diabetes mellitus
digoxin	C01AA05	Digoxin
drone	C01BD07	Dronedarone
edoxa	B01AF03	Edoxaban
fleca	C01BC04	Flecainid
fluco	J02AC01	Fluconazol
fonda	B01AX05	Fondaparinux
gp	B01AC16	GPIIb/IIIa antagonists (eptifibatide)
h2	A02BA	H2-receptor antagonistis
heparins	B01AB	Low molecular weight heparins
hfatc	C03C	Congestive heart failure bør være i kombination med Renin jf http://nbv.cardio.dk/chf

hivprot	J05AE10 J05AE08 J05AR14 J05AR15	HIV-protease inhibitors
hormcnt	G03A	Hormonal contraceptives
hrt	G03C G03F	Hormone replacement therapy
insulin	A10A	Insulins
itracon	J02AC02	Itraconazole
ivabrad	C01EB17	Ivabradine
keto	J02AB02	Systemic ketoconazole
loop	C03C C03EB	Loop diuretics
metform	A10BA02	Metformin
nonloop	C02DA C02L C03A C03B C03D C03EA C03X C07C C07D C08G C09BA C09DA C09XA52	Non-loop diuretics
nsaid	M01AA M01AB M01AC M01AE M01AG M01AH M01AX01	NSAIDs
otherdiab	A10X	Other drugs used in diabetes
persantin	B01AC07	Persantin
phen	B01AA04	Phenprocoumon
prasu	B01AC22	Prasugrel
proton	A02BC	Proton-pump inhibitors
quin	C01BA01	Quinidine (sikkert ikke i brug)
renin	C09	Renin-angiotensin inhibitor (ARB or ACE inhibitor)
riva	B01AF01	Rivaroxaban
sota	C07AA07	Sotalol
ssri	N06AB	Selective serotonin reuptake inhibitors
statins	C10	Statins
sulfin	M04	Sulfinpyrazone
syscort	H02	Systemic corticosteroids
tacrol	L04AD02	Tacrolimus
tathale	L02BA01 L04AX04 L04AX02	Tamoxifen Thalidomide Lenalidomide
thiazol	A10BG	Thiazolidinediones
thien	B01AC04 B01AC24 B01AC22	Thienopyridines (clopidogel, ticagrelor, prasugrel)
tica	B01AC24	Ticagrelor
vaso	C02DB C02DD C02DG C04 C05	Vasodilators
vera	C08DA01	Verapamil
warfarin	B01AA03	Warfarin

Combination medication indicating hypertension (By ATC codes):

Code prefix	ATC codes	Disease/treatment
	C09BB04	ACE-inhibitors and Calcium antagonists
	C09DA	Angiotensin II antagonists and thiazide

	C09DB	Angiotensin II antagonists and Calcium antagonists
	C09DX01	Angiotensin II antagonists, Calcium antagonists and hydrochlorthiazid
	C09DX04	Angiotensin II antagonists and neprilysin inhibitor
	C07B	Betablocker and thiazide