

# Supplementary data

Online table 1

Patient outcomes/readmission 30 days after discharge with respect to demographic, social and organisational factors				
		Not readmitted (n=619)	Readmitted (n=151)	Total (n=770)
Demographic factors		(row percentages)		(column percentages)
Age	65-77 years	309 (82)	68 (18)	377 (49)
	78-98 years	310 (79)	83 (21)	393 (51)
Gender	Female	307 (83)	61 (17)	368 (48)
	Male	312 (78)	90 (22)	402 (52)
Residence by city size	Lived in cities with ≤4999 inhabitants	352 (82)	78 (18)	430 (56)
	Lived in cities with ≥5000 inhabitants	267 (79)	73 (22)	340 (44)
Social factors				
Education	Basic school	299 (78)	85 (22)	384 (50)
	Vocational education	196 (83)	39 (16)	235 (31)
	Higher education	87 (86)	14 (14)	101 (13)
	Missing	37 (74)	13 (26)	50 (7)
Income	First quartile (lowest income)	144 (75)	48 (25)	192 (25)
	Second quartile	158 (82)	35 (18)	193 (25)
	Third quartile	154 (80)	39 (20)	193 (25)
	Fourth quartile (highest income)	163 (85)	29 (15)	192 (25)
Children living close by	No	385 (80)	94 (20)	479 (62)
	Yes	234 (80)	57 (20)	291 (38)
Spouse with or without comorbidity (based on Charlson Comorbidity Index/CCI)	Spouse with CCI of 0-1	214 (79)	56 (21)	270 (35)
	Spouse with CCI of 2+	66 (86)	11 (14)	77 (10)
	No spouse	339 (80)	84 (20)	423 (55)
Organisational factors				
Municipality of residence	Holbæk	250 (80)	61 (20)	311 (40)
	Kalundborg	179 (82)	39 (18)	218 (28)
	Odsherred	190 (79)	51 (21)	241 (31)
Distance to GP	64-2613 (median) meters	277 (79)	72 (21)	349 (45)
	More than 2613 meters	272 (82)	60 (18)	332 (43)
	Missing	70 (79)	19 (21)	89 (12)
Contact with GP within one month before index admission	1-4 contacts	363 (81)	84 (19)	447 (58)
	5+ contacts	256 (79)	67 (21)	323 (42)
Contact with emergency doctor within one month before index admission	No	363 (83)	74 (17)	437 (57)
	Yes	256 (77)	77 (23)	333 (43)
Need of <i>personal assistance</i> before admission	No	449 (81)	108 (19)	557 (72)
	Yes	170 (80)	43 (20)	213 (28)
Need of <i>practical assistance</i> before admission	No	473 (80)	116 (20)	589 (77)
	Yes	146 (81)	35 (19)	181 (24)

NOTE: The following covariates are not presented because of insufficient number of observations (<10 readmissions within 30 days): (1) Clinical assessment of strained social network and (2) clinical assessment of higher need for homecare after discharge.

Online table 2

Patient outcome/readmission 30 days after discharge with respect to health-related factors				
		Not readmitted n=619	Readmitted n=151	Total n=770
Health-related factors		Absolute no. (horizontal frequency)		Absolute no. (vertical frequency)
Main diagnosis related to atypical symptoms	No	463 (79)	123 (21)	586 (76)
	Yes	156 (85)	28 (15)	184 (24)
Main diagnosis related to the respiratory system	No	546 (81)	125 (19)	671 (87)
	Yes	73 (74)	26 (26)	99 (13)
Main diagnosis related to the circulatory system	No	432 (80)	109 (20)	541 (70)
	Yes	187 (82)	42 (18)	229 (30)
Charlson Comorbidity Index score (median=2; range, 0-12)	0-1	256 (86)	43 (14)	308 (40)
	2-3	215 (79)	56 (21)	271 (35)
	4+	139 (73)	52 (27)	191 (25)
Polypharmacy (5 drugs or more)	No	192 (86)	32 (14)	224 (29)
	Yes	427 (78)	199 (22)	546 (71)
Previous hospitalization within 3-month period	No	464 (82)	102 (18)	566 (74)
	Yes	155 (76)	49 (24)	204 (27)
Length of hospital stay (median=5 (range 0-145) days)	Five days or less	341 (83)	68 (17)	409 (53)
	more than five days	278 (77)	83 (23)	361 (47)
Clinical assessment of cognitive problems (not dementia)	No	583 (81)	137 (19)	720 (94)
	Yes	36 (72)	14 (28)	50 (6)
Clinical assessment of loss in ADL	No	508 (81)	123 (20)	631 (82)
	Yes	111 (80)	28 (20)	139 (18)
Thyroid disease	No	580 (81)	136 (19)	716 (93)
	Yes	39 (72)	15 (28)	54 (7)
Rheumatologic condition	No	514 (81)	122 (19)	636 (83)
	Yes	105 (78)	29 (22)	134 (17)
Respiratory disease	No	478 (82)	104 (18)	582 (76)
	Yes	141 (75)	47 (25)	188 (24)
Psychological disorder (sleep disorder, depression)	No	410 (83)	84 (17)	494 (64)
	Yes	209 (76)	67 (24)	276 (36)
Pain	No	355 (83)	72 (17)	427 (61)
	Yes	264 (77)	79 (23)	343 (39)
Gout disease	No	577 (81)	140 (20)	717 (93)
	Yes	42 (79)	11 (21)	53 (7)
Glaucoma	No	596 (81)	140 (19)	736 (96)
	Yes	23 (68)	11 (32)	34 (4)
Acid disorder	No	432 (84)	80 (16)	512 (65)
	Yes	187 (73)	71 (28)	258 (35)
Bone diseases	No	567 (80)	138 (20)	705 (92)
	Yes	52 (80)	13 (20)	65 (8)
Epilepsy	No	562 (81)	135 (19)	697 (91)
	Yes	57 (78)	16 (22)	73 (9)
Diabetes	No	517 (81)	122 (19)	639 (83)
	Yes	102 (78)	29 (22)	131 (17)
Cardiovascular disease	No	130 (84)	25 (16)	155 (20)
	Yes	489 (80)	126 (21)	615 (80)

NOTE: The following covariates are not presented because of insufficient number of observations (<10 readmissions within 30 days): (1) Dementia (both from clinical assessment and register-based information), (2) cancer, (3) intestinal disease, (4) anemia, (5) migraine, (6) psychosis, (7) tuberculosis, (8) HIV, Parkinson (5) and (9) hyperlipidemia.

### Online table 3

Population characteristics for A) all patients discharged from 16 February 2012 to 14 September 2012 from Department of Medicine, Holbæk University Hospital, B) patients for whom screening data were incomplete, and C) the patients who were screened and included in this study.				
		A) All patients discharged (n=2,026)	B) Patients for whom screening data were incomplete (n=366)	C) Patients screened and included (n=770)
		Absolute no. (column percentages)		
Age	Median (min-max)	77 (65-102)	76 (65-102)	78 (65-98)
	77 years or less	1046 (52)	195 (53)	377 (49)
	78 years or more	980 (48)	171 (47)	393 (51)
Gender	Female	1016 (50)	189 (52)	368 (48)
	Male	1010 (50)	177 (48)	402 (52)
Municipality	Holbæk	875 (43)	180 (49)	311 (40)
	Kalundborg	558 (29)	81 (22)	218 (28)
	Odsherred	593 (28)	105 (29)	241 (31)
Educational level	Primary school	1018 (50)	118 (51)	434 (50)
	Vocational education	616 (30)	95 (26)	235 (31)
	Higher education	255 (13)	52 (14)	101 (13)
	Missing	137 (7)	31 (9)	50 (7)

### Online Figure 1: Receiver Operating Curve (ROC).

Online figure 1

Online Figure 2: Calibration diagram with four groups

Online figure 2

Online figure 3: Calibration diagram with ten groups

Online figure 3