

Companionship at Hospital Discharge And Its Association With Subsequent Delirium Onset in Older Adults – The TRADE Observational Study.

Authors

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Additional file 1 (supplementary material):

Table S1: STROBE checklist

Table S2: Characteristics of study population stratified by study centers (n=163)

Table S3: Characteristics of included vs. excluded participants (available vs. missing information on companionship during discharge/transfer)

Table S4: Characteristics of study population (n=163) stratified according to the type of CSC

Table S5: Selected and excluded variables for logistic regression

Table S6: Characteristics of study population stratified according to mode of transportation (car/taxi/bus/train/tram vs. patient/disabled transport ambulance) (n=146)

Table S7: I-CAM-S, FAM-CAM and Nu-DESC in the total study population (n=212)

Table S8: Delirium detection at T1 and T2 with different instruments

Table S9: 7-days delirium incidence proportion stratified by study centers

Table S10: Logistic regression evaluating the association between companionship and 7-days-delirium incidence

Table S1: STROBE Statement for the TRADE observational study — Checklist of items that should be included in reports of cohort studies			
	Item No	Recommendation	Page No
Title and abstract	1	(a) Indicate the study’s design with a commonly used term in the title or the abstract	1
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	3-4
Introduction			
Background/ rationale	2	Explain the scientific background and rationale for the investigation being reported	5-6
Objectives	3	State specific objectives, including any prespecified hypotheses	6-7
Methods			
Study design	4	Present key elements of study design early in the paper	7, 10-11
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	7-11
Participants	6	(a) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up (b) For matched studies, give matching criteria and number of exposed and unexposed	7-11 n.a.
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	11-14
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	11-14
Bias	9	Describe any efforts to address potential sources of bias	14-15
Study size	10	Explain how the study size was arrived at	7-9
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	11-14
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding (b) Describe any methods used to examine subgroups and interactions (c) Explain how missing data were addressed (d) If applicable, explain how loss to follow-up was addressed (e) Describe any sensitivity analyses	14-15 14-15 8, 15 n.a. n.a.
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed (b) Give reasons for non-participation at each stage (c) Consider use of a flow diagram	8-9 8-9 9
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders (b) Indicate number of participants with missing data for each variable of interest (c) Summarise follow-up time (eg, average and total amount)	15-16, Table 1, Tables S2-S4, Table S6 n.a.
Outcome data	15*	Report numbers of outcome events or summary measures over time	16-20
Main results	16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included (b) Report category boundaries when continuous variables were categorized (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	17-20 n. a. n. a.

Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	18-19
Discussion			
Key results	18	Summarise key results with reference to study objectives	21-23
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	23-25
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	22-23, 25
Generalisability	21	Discuss the generalisability (external validity) of the study results	23-25
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	28
*Give information separately for exposed and unexposed groups.			

Table S2: Characteristics of study population stratified by study centers										
	Total (N=163)	Number of missings	Heidelberg - Geriatrics (N=38)	Number of missings	Heidelberg – University Hospital (N=28)	Number of missings	Tuebingen (N=31)	Number of missings	Ulm (N=66)	Number of missings
Age (years), Median (Min, Q1, Q3, Max)	80.8 (70.0,77.0,84.2,97.6)	0	84.2 (72.8,80.4,89.4,96.6)	0	79.7 (71.2,76.8,83.7,90.2)	0	79.8 (70,76,82,88.4)	0	80.8 (70.2,75,83.8,97.6)	0
Women, n (%)	91 (55.8)	0	23 (60.5)	0	9 (32.1)	0	21 (67.7)	0	38 (57.6)	0
School education, n (%)										
≤ 10 years	112 (68.7)	0	22 (57.9)	0	18 (64.3)	0	20 (64.5)	0	52 (78.8)	0
> 10 years	51 (31.3)		16 (42.1)		10 (35.7)		11 (35.5)		14 (21.2)	
Migration background, n (%)	20 (12.3)	0	3 (7.9)	0	2 (7.1)	0	5 (16.1)	0	10 (15.2)	0
Systolic blood pressure (mmHg) on admission, Median (Min, Q1, Q3, Max)	130 (86,115,145,190)	9	130 (86,118,149,180)	1	130 (110,120,150,170)	2	130 (100,115,140,190)	0	130 (90,110,145,180)	7
Diastolic blood pressure (mmHg) on admission, Median (Min, Q1, Q3, Max)	70 (40,65,80,109)	9	70 (40,60,80,109)	1	70 (60,70,80,90)	2	75 (60,70,80,100)	0	70 (45,65,80,95)	7
Smoking status, n (%)										
non-smoker	85 (52.2)	0	20 (52.6)	0	13 (46.4)	0	13 (41.9)	0	39 (59.1)	0
ex-smoker	73 (44.8)		16 (42.1)		14 (50.0)		17 (54.8)		26 (39.4)	
current smoker	5 (3.1)		2 (5.3)		1 (3.6)		1 (3.2)		1 (1.5)	
Alcohol consumption, n (%)										
never	39 (24.5)	4	8 (22.9)	3	5 (17.9)	0	16 (53.3)	1	10 (15.2)	0
formerly	33 (20.8)		10 (28.6)		5 (17.9)		4 (13.3)		14 (21.2)	
currently	87 (54.7)		17 (48.6)		18 (64.3)		10 (33.3)		42 (63.6)	
Marital status, n (%)										
married/partnership	88 (54.0)	0	14 (36.8)	0	22 (78.6)	0	14 (45.2)	0	38 (57.6)	0
single	10 (6.1)		0		1 (3.6)		3 (9.7)		6 (9.1)	
divorced/separated	5 (3.1)		4 (10.5)		0		0		1 (1.5)	
widowed	60 (36.8)		20 (52.6)		5 (17.9)		14 (45.2)		21 (31.8)	
Children, n (%)	146 (89.6)	0	37 (97.4)	0	24 (85.7)	0	29 (93.6)	0	56 (84.9)	0
Grandchildren, n (%)	119 (73.0)	0	30 (79.0)	0	19 (67.9)	0	26 (83.9)	0	44 (66.7)	0
Current housing situation, n (%)										
own household	153 (93.9)	0	36 (94.7)	0	28 (100.0)	0	30 (96.8)	0	59 (89.4)	0
household of children/ grandchildren/ other relatives	1 (0.6)		0		0		0		1 (1.5)	
assisted living	9 (5.5)		2 (5.3)		0		1 (3.2)		6 (9.1)	
Living alone, n (%)	74 (45.4)	0	23 (60.5)	0	6 (21.4)	0	17 (54.8)	0	28 (42.4)	0
Lubben										

Table S2: Characteristics of study population stratified by study centers										
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Median (Min, Q1, Q3, Max)	16 (0,11,21,30)	10	13 (0,10,18,30)	1	16 (1,12,21,23)	3	16 (5,10,22,30)	1	17 (5,15,21,28)	5
social isolation (< 12) , n (%)	40 (26.1)		16 (43.2)		4 (16.0)		9 (30.0)		11 (18.0)	
social support (≥ 12), n (%)	113 (73.9)		21 (56.8)		21 (84.0)		21 (70.0)		50 (82.0)	
Social contact with ..., n (%)										
Spouse	90 (55.2)	0	14 (36.8)	0	22 (78.6)	0	14 (45.2)	0	40 (60.6)	0
Sister	69 (42.3)	0	14 (36.8)	0	12 (42.9)	0	10 (32.3)	0	33 (50.0)	0
Brother	64 (39.5)	1	14 (36.8)	0	12 (44.4)	1	10 (32.3)	0	28 (42.4)	0
Daughter	94 (57.7)	0	22 (57.9)	0	17 (60.7)	0	18 (58.1)	0	37 (56.1)	0
Son	96 (58.9)	0	26 (68.4)	0	15 (53.6)	0	19 (61.3)	0	36 (54.6)	0
Daughter-in-law	71 (43.6)	0	21 (55.3)	0	10 (35.7)	0	17 (54.8)	0	23 (34.9)	0
Son-in-law	72 (44.2)	0	15 (39.5)	0	12 (42.9)	0	15 (48.4)	0	30 (45.5)	0
Daughter and/or son- in-law										
one of both	24 (14.7)	0	9 (23.7)	0	5 (17.9)	0	3 (9.7)	0	7 (10.6)	0
both	71 (43.6)		14 (36.8)		12 (42.9)		15 (48.4)		30 (45.5)	
Friend	141 (86.5)	0	27 (71.1)	0	26 (92.9)	0	28 (90.3)	0	60 (90.9)	0
Neighbor	143 (89.4)	3	29 (76.3)	0	27 (96.4)	0	24 (85.7)	3	63 (95.5)	0
Barthel Index, Median (Min, Q1, Q3, Max)	85 (0,57.5,100,100)	11	70 (20,55,90,100)	0	95 (45,60,100,100)	1	97.5 (45,77.5,100,100)	7	85 (0,55,100,100)	3
Hearing problems, n (%)	81 (49.7)	0	21 (55.3)	0	14 (50.0)	0	18 (58.1)	0	28 (42.4)	0
Vision problems, n (%)	94 (57.7)	0	16 (42.1)	0	14 (50.0)	0	19 (61.3)	0	45 (68.2)	0
Fall during last 3 months, n (%)	79 (48.5)	0	21 (55.3)	0	8 (28.6)	0	10 (32.3)	0	40 (60.6)	0
Walking aid, n (%)	85 (52.2)	0	26 (68.4)	0	11 (39.3)	0	16 (51.6)	0	32 (48.5)	0
CSHA Clinical Frailty Scale (1=very fit, 9=terminally ill), median (Min, Q1, Q3, Max)	4 (1,3,6,8)	2	6 (2,4,6,7)	2	3 (1,2.5,4.5,7)	0	4 (2,3,6,7)	0	3.5 (1,3,5,8)	0
Subjective general health, n (%)										
poor/fair	83 (53.6)	8	18 (56.3)	6	16 (57.1)	0	17 (54.8)	0	32 (50.0)	2
good/very good/excellent	72 (46.5)		14 (43.8)		12 (42.9)		14 (45.2)		32 (50.0)	
Subjective mental health, n (%)										
poor/fair	30 (19.5)	9	8 (25.8)	7	3 (10.7)	0	4 (13.3)	1	15 (23.1)	1

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good/very good/excellent	124 (80.5)		23 (74.2)		25 (89.3)		26 (86.7)		50 (76.9)	
Depression in PHQ-4, n (%)	41 (26.5)	8	13 (37.1)	3	5 (19.2)	2	5 (16.1)	0	18 (28.6)	3
Anxiety in PHQ-4, n (%)	27 (17.5)	9	8 (22.9)	3	3 (11.5)	2	7 (23.3)	1	9 (14.3)	3
Comorbidities										
Cardiovascular diseases (heart attack, coronary heart disease, valvular heart diseases, heart failure, cardiac arrhythmia, peripheral artery occlusive disease, other arterial disorders), n (%)	120 (73.6)	0	29 (76.3)	0	28 (100)	0	26 (83.9)	0	37 (56.1)	0
Hypertension, n (%)	119 (73.0)	0	33 (86.8)	0	21 (75.0)	0	28 (90.3)	0	37 (56.1)	0
Diabetes mellitus, n (%)	46 (28.2)	0	11 (29.0)	0	7 (25.0)	0	11 (35.5)	0	17 (25.8)	0
Chronic lung disease, n (%)	28 (17.2)	0	9 (23.7)	0	6 (21.4)	0	8 (25.8)	0	5 (7.6)	0
Sleep apnea syndrome, n (%)	9 (5.5)	0	0	0	1 (3.6)	0	3 (9.7)	0	5 (7.6)	0
Malignant tumor disease, n (%)	42 (25.8)	0	11 (29.0)	0	6 (21.4)	0	12 (38.7)	0	13 (19.7)	0
Depression, n (%)	36 (22.1)	0	13 (34.2)	0	2 (7.1)	0	5 (16.1)	0	16 (24.2)	0
Stroke, n (%)	28 (17.2)	0	9 (23.7)	0	2 (7.1)	0	8 (25.8)	0	9 (13.6)	0
Paralysis, n (%)	14 (8.6)	0	4 (10.5)	0	0	0	2 (6.5)	0	8 (12.1)	0
Traumatic brain injury, n (%)	15 (9.2)	0	5 (13.2)	0	1 (3.6)	0	2 (6.5)	0	7 (10.6)	0
Dementia, n (%)	15 (9.2)	0	6 (15.8)	0	1 (3.6)	0	3 (9.7)	0	5 (7.6)	0
Parkinson's disease, n (%)	4 (2.5)	0	1 (2.6)	0	1 (3.6)	0	1 (3.2)	0	1 (1.5)	0
Cerebral hemorrhage, n (%)	6 (3.7)	0	1 (2.6)	0	0	0	2 (6.5)	0	3 (4.6)	0
CCI, Median (Min, Q1, Q3, Max)	2 (0,1,4,10)	0	2.5 (0,1,5,8)	0	1.5 (0,0.5,4,9)	0	2 (0,1,4,7)	0	1 (0,1,3,10)	0
Relevant diseases (poor circulation or diabetes mellitus or blood cancer or epileptic seizures), n (%)	92 (56.4)	0	21 (55.3)	0	13 (46.4)	0	24 (77.4)	0	34 (51.5)	0
Number of medicines, Median (Min, Q1, Q3, Max)	9 (2,7,12,20)	0	10.5 (3,7,13,18)	0	9 (4,6,12.5,19)	0	10 (3,7,11,20)	0	8.5 (2,6,11,18)	0

Table S2: Characteristics of study population stratified by study centers										
	Total (N=163)	Number of missings	Heidelberg - Geriatrics (N=38)	Number of missings	Heidelberg – University Hospital (N=28)	Number of missings	Tuebingen (N=31)	Number of missings	Ulm (N=66)	Number of missings
Polymedication (≥ 5 medicines), n (%)	152 (93.3)	0	37 (97.4)	0	27 (96.4)	0	27 (87.1)	0	61 (92.4)	0
Cognition										
MoCA										
Blind version, n (%)	5 (3.1)		1 (2.6)		0		1 (3.2)	4	3 (4.5)	
Sum score (<u>without</u> blind), Median (Min, Q1, Q3, Max)	22 (7,19,24,29)	26	20 (7,17,24,26)	7	22 (13,21,23,29)	3	24 (16,21,25,29)	3	21.5 (13,19,24,28)	13
Sum score (<u>only</u> blind), Median (Min, Q1, Q3, Max)	17 (9,13,17,22)	0	22 (22,22,22,22)	0	-	-	17 (17,17,17,17)	0	13 (9,9,17,17)	0
Conspicuously ¹ (incl. blind), n (%)	119 (86.9)	26	29 (93.6)	7	22 (88.0)	3	23 (82.1)	3	45 (84.9)	13
Subjective memory impairment, n(%)										
yes	96 (58.9)	0	22 (57.9)	0	18 (64.3)	0	22 (71.0)	0	34 (51.5)	0
no	64 (39.3)		16 (42.1)		10 (35.7)		8 (25.8)		30 (45.5)	
unknown	3 (1.8)		0		0		1 (3.2)		2 (3.0)	
History of previous delirium, n (%)										
yes	24 (14.7)	0	10 (26.3)	0	3 (10.7)	0	4 (12.9)	0	7 (10.6)	0
no	135 (82.8)		28 (73.7)		24 (85.7)		25 (80.7)		58 (87.9)	
unknown	4 (2.5)		0		1 (3.6)		2 (6.5)		1 (1.5)	
DRAS, Median (Min, Q1, Q3, Max)	7 (1,5,8,12)	10	8 (4,7,8,12)	0	7 (2,5,8,10)	2	6 (2,5,8,9)	5	6 (1,4,8,11)	3
Discharge/transfer (T1)										
Length of hospital stay (days), Median (Min, Q1, Q3, Max)	8 (1,4,17,61)	1	18.5 (2,16,22,61)	0	7 (1,4.5,10,35)	0	2.5 (1,2,6,25)	1	8 (1,4,12,37)	0
Discharge environment, n (%)										
unknown (been there < 6 months)	53 (32.5)	0	19 (50.0)	0	2 (7.1)	0	7 (22.6)	0	25 (37.9)	0
of these n (%) never been there	44 (83.0)		18 (94.7)		2 (100)		4 (57.1)		20 (80.0)	
known (been there ≥ 6 months)	110 (67.5)		19 (50.0)		26 (92.9)		24 (77.4)		41 (62.1)	
of these n (%) home	108 (98.2)		19 (100)		26 (100)		23 (95.8)		40 (97.6)	
¹ Defined as sum < 26 (normal version) and sum < 18 (blind version)										

Table S2: Characteristics of study population stratified by study centers										
	Total (N=163)	Number of missings	Heidelberg - Geriatrics (N=38)	Number of missings	Heidelberg – University Hospital (N=28)	Number of missings	Tuebingen (N=31)	Number of missings	Ulm (N=66)	Number of missings
Abbreviations: CSHA = Canadian Study on Health and Aging; PHQ-4 = Patient Health Questionnaire-4, CCI = Charlson Comorbidity Index, MoCA = Montreal Cognitive Assessment, DRAS = Delirium Risk Assessment Score										

Table S3: Characteristics of included vs. excluded participants (available vs. missing information on companionship during discharge/transfer)

Variable	Total (n=212)	Number of missings	Study population with information on companionship (n=163)	Number of missings	Study population without information on companionship (n=49)	Number of missings
Age (years) , Median (Min, Q1, Q3, Max)	80.8 (70.0,76.8,84.6,97.6)	0	80.8 (70.0,77.0,84.2,97.6)	0	80.6 (70.2,76.0,84.8,91.0)	0
Women , n (%)	115 (54.3)	0	91 (55.8)	0	24 (49.0)	0
School education , n (%)						
≤ 10 years	148 (69.8)	0	112 (68.7)	0	36 (73.5)	0
> 10 years	64 (30.2)		51 (31.3)		13 (26.5)	
Migration background , n (%)	27 (12.7)	0	20 (12.3)	0	7 (14.3)	0
Center						
Ulm University Hospital	79 (37.3)	0	66 (40.5)	0	13 (26.5)	0
Heidelberg Geriatrics	51 (24.1)		38 (23.3)		13 (26.5)	
Heidelberg University Hospital	46 (21.7)		28 (17.2)		18 (36.7)	
Tuebingen University Hospital	36 (17.0)		31 (19.0)		5 (10.2)	
Systolic blood pressure (mmHg) on admission , Median (Min, Q1, Q3, Max)	130 (86,115,145,190)	26	130 (86,115,145,190)	9	137.5 (100,112.5,149.5,185)	17
Diastolic blood pressure (mmHg) on admission , Median (Min, Q1, Q3, Max)	70 (40,65,80,109)	26	70 (40,65,80,109)	9	72.5 (50,65,80,100)	17
Smoking status , n (%)						
non-smoker	114 (54.0)	1	85 (52.2)	0	29 (60.4)	1
ex-smoker	89 (42.2)		73 (44.8)		16 (33.3)	
current smoker	8 (3.8)		5 (3.1)		3 (6.3)	
Alcohol consumption , n (%)						
never	47 (22.9)	7	39 (24.5)	4	8 (17.4)	3
formerly	47 (22.9)		33 (20.8)		14 (30.4)	
currently	111 (54.2)		87 (54.7)		24 (52.2)	
Marital status , n (%)						
married/partnership	116 (54.7)	0	88 (54.0)	0	28 (57.1)	0
single	16 (7.6)		10 (6.1)		6 (12.2)	
divorced/separated	10 (4.7)		5 (3.1)		5 (10.2)	
widowed	70 (33.0)		60 (36.8)		10 (20.4)	
Children , n (%)	184 (86.8)	0	146 (89.6)	0	38 (77.6)	0
Grandchildren , n (%)	152 (71.7)	0	119 (73.0)	0	33 (67.4)	0
Current housing situation , n (%)						
own household	198 (93.4)	0	153 (93.9)	0	45 (91.8)	0
household of children/ grandchildren/ other relatives	1 (0.5)		1 (0.6)		0 (0.0)	
assisted living	13 (6.1)		9 (5.5)		4 (8.2)	
Living alone, n (%)	94 (44.3)	0	74 (45.4)	0	20 (40.8)	0
Lubben						
Median (Min, Q1, Q3, Max)	16 (0,11,20,30)	12	16 (0,11,21,30)	10	14 (2,10,19,25)	2
social isolation (< 12) , n (%)	54 (27.0)		40 (26.1)		14 (29.8)	
social support (≥ 12), n (%)	146 (73.0)		113 (73.9)		33 (70.2)	
Social contact with ... , n (%)						
Spouse	120 (56.6)	0	90 (55.2)	0	30 (61.2)	0
Sister	87 (41.0)	0	69 (42.3)	0	18 (36.7)	0
Brother	81 (38.4)	1	64 (39.5)	1	17 (34.7)	0
Daughter	126 (59.4)	0	94 (57.7)	0	32 (65.3)	0

Table S3: Characteristics of included vs. excluded participants (available vs. missing information on companionship during discharge/transfer)

Variable	Total (n=212)	Number of missings	Study population with information on companionship (n=163)	Number of missings	Study population without information on companionship (n=49)	Number of missings
Son	121 (57.1)	0	96 (58.9)	0	25 (51.0)	0
Daughter-in-law	86 (40.6)	0	71 (43.6)	0	15 (30.6)	0
Son-in-law	98 (46.2)	0	72 (44.2)	0	26 (53.1)	0
Social contact: Daughter and/or son-in-law		0		0		0
one of both	32 (15.1)		24 (14.7)		8 (16.3)	
both	96 (45.3)		71 (43.6)		25 (51.0)	
Friend	184 (86.8)	0	141 (86.5)	0	43 (87.8)	0
Neighbor	185 (88.9)	4	143 (89.4)	3	42 (87.5)	1
Barthel Index, Median (Min, Q1, Q3, Max)	80 (0,55,100,100)	14	85 (0,57.5,100,100)	11	70 (35,50,90,100)	3
Hearing problems, n (%)	108 (50.9)	0	81 (49.7)	0	27 (55.1)	0
Vision problems, n (%)	127 (59.9)	0	94 (57.7)	0	33 (67.4)	0
Fall during last 3 months, n (%)	106 (50.0)	0	79 (48.5)	0	27 (55.1)	0
Walking aid, n (%)	119 (56.1)	0	85 (52.2)	0	34 (69.4)	0
CSHA Clinical Frailty Scale (1=very fit, 9=terminally ill), median (Min, Q1, Q3, Max)	4 (1,3,6,8)	2	4 (1,3,6,8)	2	4 (1,3,6,8)	0
Subjective general health, n (%)		10		8		2
poor/fair	117 (57.9)		83 (53.6)		34 (72.3)	
good/very good/excellent	85 (42.1)		72 (46.5)		13 (27.7)	
Subjective mental health, n (%)		11		9		2
poor/fair	40 (19.9)		30 (19.5)		10 (21.3)	
good/very good/excellent	161 (80.1)		124 (80.5)		37 (78.7)	
Depression in PHQ-4, n (%)	55 (27.2)	10	41 (26.5)	8	14 (29.8)	2
Anxiety in PHQ-4, n (%)	36 (17.9)	11	27 (17.5)	9	9 (19.2)	2
Comorbidities						
Cardiovascular diseases (heart attack, coronary heart disease, valvular heart diseases, heart failure, cardiac arrhythmia, peripheral artery occlusive disease, other arterial disorders), n (%)	155 (73.1)	0	120 (73.6)	0	35 (71.4)	0
Hypertension, n (%)	157 (74.1)	0	119 (73.0)	0	38 (77.6)	0
Diabetes mellitus, n (%)	60 (28.3)	0	46 (28.2)	0	14 (28.6)	0
Chronic lung disease, n (%)	39 (18.4)	0	28 (17.2)	0	11 (22.5)	0
Sleep apnea syndrome, n (%)	11 (5.2)	0	9 (5.5)	0	2 (4.1)	0
Malignant tumor disease, n (%)	55 (25.9)	0	42 (25.8)	0	13 (26.5)	0
Depression, n (%)	45 (21.2)	0	36 (22.1)	0	9 (18.4)	0
Stroke, n (%)	35 (16.5)	0	28 (17.2)	0	7 (14.3)	0
Paralysis, n (%)	20 (9.4)	0	14 (8.6)	0	6 (12.2)	0
Traumatic brain injury, n (%)	21 (9.9)	0	15 (9.2)	0	6 (12.2)	0
Dementia, n (%)	18 (8.5)	0	15 (9.2)	0	3 (6.1)	0
Parkinson's disease, n (%)	6 (2.8)	0	4 (2.5)	0	2 (4.1)	0
Cerebral hemorrhage, n (%)	8 (3.8)	0	6 (3.7)	0	2 (4.1)	0

Table S3: Characteristics of included vs. excluded participants (available vs. missing information on companionship during discharge/transfer)

Variable	Total (n=212)	Number of missings	Study population with information on companionship (n=163)	Number of missings	Study population without information on companionship (n=49)	Number of missings
CCI, Median (Min, Q1, Q3, Max)	2 (0,1,4,10)	0	2 (0,1,4,10)	0	2 (0,1,4,8)	0
Relevant diseases (poor circulation or diabetes mellitus or blood cancer or epileptic seizures), n (%)	116 (54.7)	0	92 (56.4)	0	24 (49.0)	0
Number of medicines, Median (Min, Q1, Q3, Max)	9.5 (2,7,12,20)	2	9 (2,7,12,20)	0	10 (3,7,12,20)	2
Polymedication (≥ 5 medicines), n (%)	195 (92.9)	2	152 (93.3)	0	43 (91.5)	2
Cognition						
MoCA						
Blind version, n (%)	8 (3.8)		5 (3.1)		3 (6.1)	
Sum score (without blind), Median (Min, Q1, Q3, Max)	21 (7,19,24,29)	43	22 (7,19,24,29)	26	20 (12,18,22,27)	17
Sum score (only blind), Median (Min, Q1, Q3, Max)	15 (9,13,17,22)	2	17 (9,13,17,22)	0	13 (13,13,13,13)	2
Conspicuously ¹ (incl. blind), n (%)	146 (87.4)	45	119 (86.9)	26	27 (90.0)	19
Subjective memory impairment, n(%)		0		0		0
yes	120 (56.6)		96 (58.9)		24 (49.0)	
no	87 (41.0)		64 (39.3)		23 (46.9)	
unknown	5 (2.4)		3 (1.8)		2 (4.1)	
History of previous delirium, n (%)		0		0		0
yes	30 (14.2)		24 (14.7)		6 (12.2)	
no	176 (83.0)		135 (82.8)		41 (83.7)	
unknown	6 (2.8)		4 (2.5)		2 (4.1)	
DRAS, Median (Min, Q1, Q3, Max)	7 (1,5,8,12)	12	7 (1,5,8,12)	10	6 (3,5,7,11)	2
Discharge/transfer (T1)						
Length of hospital stay (days), Median (Min, Q1, Q3, Max)	10 (1,5,17,61)	1	8 (1,4,17,61)	1	12 (3,8,19,47)	0
Discharge environment, n (%)		44		0		44
unknown (been there < 6 months)	57 (33.9)		53 (32.5)		4 (80.0)	
of these n (%) never been there	48 (84.2)		44 (83.0)		4 (100.0)	
known (been there ≥ 6 months)	111 (66.1)		110 (67.5)		1 (20.0)	
of these n (%) home	109 (98.2)		108 (98.2)		1 (100.0)	
¹ Defined as sum < 26 (normal version) and sum < 18 (blind version) Abbreviations: CSHA = Canadian Study on Health and Aging; PHQ-4 = Patient Health Questionnaire-4, CCI = Charlson Comorbidity Index, MoCA = Montreal Cognitive Assessment, DRAS = Delirium Risk Assessment Score						

Table S4: Characteristics of study population (n=163) stratified according to the type of CSC

Variable	Total (n=163)	Number of Missings	Optimal CSC (n=61)	Number of Missings	No/not-optimal CSC (n=102)	Number of Missings	p-value
Age (years) , Median (Min, Q1, Q3, Max)	80.8 (70.0,77.0,84.2,97.6)	0	80.8 (70.2,77.4,85.2,97.6)	0	80.9 (70.0,76.6,84.0,96.6)	0	0.468
Women , n (%)	91 (55.8)	0	29 (47.5)	0	62 (60.8)	0	0.099
School education , n (%)							
≤ 10 years	112 (68.7)	0	44 (72.1)	0	68 (66.7)	0	0.467
> 10 years	51 (31.3)		17 (27.9)		34 (33.3)		
Migration background , n (%)	20 (12.3)	0	8 (13.1)	0	12 (11.8)	0	0.799
Center							
Ulm University Hospital	66 (40.5)		25 (41.0)		41 (40.2)		
Heidelberg Geriatrics	38 (23.3)		16 (26.2)		22 (21.6)		
Heidelberg University Hospital	28 (17.2)	0	15 (24.6)	0	13 (12.8)	0	0.024
Tuebingen University Hospital	31 (19.0)		5 (8.2)		26 (25.5)		
Systolic blood pressure (mmHg) on admission , Median (Min, Q1, Q3, Max)	130 (86,115,145,190)	9	130 (86,120,145,170)	4	130 (89,115,145,190)	5	0.578
Diastolic blood pressure (mmHg) on admission , Median (Min, Q1, Q3, Max)	70 (40,65,80,109)	9	70 (40,69,81,90)	4	70 (40,65,80,109)	5	0.536
Smoking status , n (%)							
non-smoker	85 (52.2)	0	34 (55.7)	0	51 (50.0)	0	0.074
ex-smoker	73 (44.8)		23 (37.7)		50 (49.0)		
current smoker	5 (3.1)		4 (6.6)		1 (1.0)		
Alcohol consumption , n (%)							
never	39 (24.5)	4	13 (22.0)	2	26 (26.0)	2	0.049
formerly	33 (20.8)		7 (11.9)		26 (26.0)		
currently	87 (54.7)		39 (66.1)		48 (48.0)		
Marital status , n (%)							
married/partnership	88 (54.0)	0	38 (62.3)	0	50 (49.0)	0	0.048
single	10 (6.1)		0 (0.0)		10 (9.8)		
divorced/separated	5 (3.1)		1 (1.6)		4 (3.9)		
widowed	60 (36.8)		22 (36.1)		38 (37.3)		
Children , n (%)	146 (89.6)	0	58 (95.1)	0	88 (86.3)	0	0.075
Grandchildren , n (%)	119 (73.0)	0	45 (73.8)	0	74 (72.6)	0	0.087
Current housing situation , n (%)							
own household	153 (93.9)	0	55 (90.2)	0	98 (96.1)	0	0.134
household of children/ grandchildren/ other relatives	1 (0.6)		0 (0.0)		1 (1.0)		
assisted living	9 (5.5)		6 (9.8)		3 (2.9)		
Living alone, n (%)	74 (45.4)	0	21 (34.4)	0	53 (52.0)	0	0.030
Lubben							
Median (Min, Q1, Q3, Max)	16 (0,11,21,30)	10	17 (5,12,19,26)	4	16 (0,11,21,30)	6	0.504
social isolation (< 12) , n (%)	40 (26.1)		14 (24.6)		26 (27.1)		0.731
social support (≥ 12), n (%)	113 (73.9)		43 (75.4)		70 (72.9)		
Social contact with ... , n (%)							
Spouse	90 (55.2)	0	39 (63.9)	0	51 (50.0)	0	0.083
Sister	69 (42.3)	0	28 (45.9)	0	41 (40.2)	0	0.476
Brother	64 (39.5)	1	27 (45.0)	1	37 (36.3)	0	0.273
Daughter	94 (57.7)	0	42 (68.9)	0	52 (51.0)	0	0.025
Son	96 (58.9)	0	33 (54.1)	0	63 (61.8)	0	0.336
Daughter in law	71 (43.6)	0	26 (42.6)	0	45 (44.1)	0	0.852

Table S4: Characteristics of study population (n=163) stratified according to the type of CSC

Variable	Total (n=163)	Number of Missings	Optimal CSC (n=61)	Number of Missings	No/not-optimal CSC (n=102)	Number of Missings	p-value
Son-in-law	72 (44.2)	0	34 (55.7)	0	38 (37.3)	0	0.022
Daughter and/or son-in-law		0		0		0	0.046
one of both	24 (14.7)		10 (16.4)		14 (13.7)		
both	71 (43.6)		33 (54.1)		38 (37.3)		
Friend		0		0		0	0.559
Neighbor	143 (89.4)	3	57 (95.0)	1	86 (86.0)	2	0.074
Barthel Index, Median (Min, Q1, Q3, Max)	85 (0,57.5,100,100)	11	90 (0,60,100,100)	2	80 (20,55,100,100)	9	0.578
Hearing problems, n (%)	81 (49.7)	0	30 (49.2)	0	51 (50.0)	0	0.919
Vision problems, n (%)	94 (57.7)	0	36 (59.0)	0	58 (56.9)	0	0.788
Fall during last 3 months, n (%)	79 (48.5)	0	28 (45.9)	0	51 (50.0)	0	0.612
Walking aid, n (%)	85 (52.2)	0	27 (44.3)	0	58 (56.9)	0	0.119
CSHA Clinical Frailty Scale (1=very fit, 9=terminally ill), median (Min, Q1, Q3, Max)	4 (1,3,6,8)	2	3 (1,3,5,7)	0	4 (1,3,6,8)	2	0.207
Subjective general health, n (%)		8		3		5	0.309
poor/fair	83 (53.6)		28 (48.3)		55 (56.7)		
good/very good/excellent	72 (46.5)		30 (51.7)		42 (43.3)		
Subjective mental health, n (%)		9		4		5	0.965
poor/fair	30 (19.5)		11 (19.3)		19 (19.6)		
good/very good/excellent	124 (80.5)		46 (80.7)		78 (80.4)		
Depression in PHQ-4, n (%)	41 (26.5)	8	15 (26.3)	4	26 (26.5)	4	0.977
Anxiety in PHQ-4, n (%)	27 (17.5)	9	6 (10.7)	5	21 (21.4)	4	0.093
Comorbidities							
Cardiovascular diseases (heart attack, coronary heart disease, valvular heart diseases, heart failure, cardiac arrhythmia, peripheral artery occlusive disease, other arterial disorders), n (%)	120 (73.6)	0	44 (72.1)	0	76 (74.5)	0	0.739
Hypertension, n (%)	119 (73.0)	0	42 (68.9)	0	77 (75.5)	0	0.356
Poor circulation, n (%)	50 (30.7)	0	12 (19.7)	0	38 (37.3)	0	0.019
Diabetes mellitus, n (%)	46 (28.2)	0	12 (19.7)	0	34 (33.3)	0	0.061
Chronic lung disease, n (%)	28 (17.2)	0	9 (14.8)	0	19 (18.6)	0	0.526
Sleep apnea syndrome, n (%)	9 (5.5)	0	2 (3.3)	0	7 (6.9)	0	0.486
Malignant tumor disease, n (%)	42 (25.8)	0	20 (32.8)	0	22 (21.6)	0	0.113
Blood cancer	5 (3.1)	0	4 (6.6)	0	1 (1.0)	0	0.066
Depression, n (%)	36 (22.1)	0	13 (21.3)	0	23 (22.6)	0	0.854
Stroke, n (%)	28 (17.2)	0	8 (13.1)	0	20 (19.6)	0	0.288
Paralysis, n (%)	14 (8.6)	0	4 (6.6)	0	10 (9.8)	0	0.573
Traumatic brain injury, n (%)	15 (9.2)	0	5 (8.2)	0	10 (9.8)	0	0.731
Dementia, n (%)	15 (9.2)	0	7 (11.5)	0	8 (7.8)	0	0.438
Parkinson's disease, n (%)	4 (2.5)	0	0 (0.0)	0	4 (3.9)	0	0.298
Cerebral hemorrhage, n (%)	6 (3.7)	0	2 (3.3)	0	4 (3.9)	0	1.000
Epileptic seizures, n (%)	8 (4.9)	0	6 (9.8)	0	2 (2.0)	0	0.053
CCI, Median (Min, Q1, Q3, Max)	2 (0,1,4,10)	0	2 (0,1,4,9)	0	2 (0,1,4,10)	0	0.718

Table S4: Characteristics of study population (n=163) stratified according to the type of CSC

Variable	Total (n=163)	Number of Missings	Optimal CSC (n=61)	Number of Missings	No/not-optimal CSC (n=102)	Number of Missings	p-value
Relevant diseases (poor circulation or diabetes mellitus or blood cancer or epileptic seizures), n (%)	92 (56.4)	0	27 (44.3)	0	65 (63.7)	0	0.015
Number of relevant diseases		0		0		0	0.033
1	77 (47.2)		22 (36.1)		55 (53.9)		
2	14 (8.6)		4 (6.6)		10 (9.8)		
3	0 (0.0)		0 (0.0)		0 (0.0)		
4	1 (0.6)		1 (1.6)		0 (0.0)		
Number of medicines , Median (Min, Q1, Q3, Max)	9 (2,7,12,20)	0	8 (2,6,11,19)	0	10 (3,7,12,20)	0	0.213
Polymedication (≥ 5 medicines) , n (%)	152 (93.3)	0	57 (93.4)	0	95 (93.1)	0	0.940
Cognition							
MoCA							
Blind version, n (%)	5 (3.1)		3 (4.9)		2 (2.0)		
Sum score (<u>without</u> blind), Median (Min, Q1, Q3, Max)	22 (7,19,24,29)	26	21 (7,19,24,28)	8	22 (10,19,25,29)	18	0.978
Sum score (<u>only</u> blind), Median (Min, Q1, Q3, Max)	17 (9,13,17,22)	0	13 (9,9,17,17)	0	19.5 (17,17,22,22)	0	0.139
Conspicuously ¹ (incl. blind), n (%)	119 (86.9)	26	47 (88.7)	8	72 (85.7)	18	0.617
Subjective memory impairment , n(%)		0		0		0	0.600
yes	96 (58.9)		33 (54.1)		63 (61.8)		
no	64 (39.3)		27 (44.3)		37 (36.3)		
unknown	3 (1.8)		1 (1.6)		2 (2.0)		
History of previous delirium , n (%)		0		0		0	0.799
yes	24 (14.7)		8 (13.1)		16 (15.7)		
no	135 (82.8)		51 (83.6)		84 (82.4)		
unknown	4 (2.5)		2 (3.3)		2 (2.0)		
DRAS , Median (Min, Q1, Q3, Max)	7 (1,5,8,12)	10	7 (1,6,8,11)	3	7 (2,5,8,12)	7	0.031
Discharge/transfer (T1)							
Length of hospital stay (days) , Median (Min, Q1, Q3, Max)	8 (1,4,17,61)	1	10 (1,5,17,61)	0	8 (1,3,17,35)	1	0.064
Discharge environment , n (%)		0		0		0	0.095
unknown (been there < 6 months)	53 (32.5)		15 (24.6)		38 (37.3)		
of these n (%) never been there	44 (83.0)		11 (73.3)		33 (86.8)		
known (been there ≥ 6 months)	110 (67.5)		46 (75.4)		64 (62.8)		
of these n (%) home	108 (98.2)		45 (97.8)		63 (98.4)		
Mode of transportation , n (%)		4		2		2	0.005
ambulance/patient transport	54 (34.0)		12 (20.3)		42 (42.0)		
car/taxi/bus/train/tram	105 (66.0)		47 (79.7)		58 (58.0)		

¹ Defined as sum < 26 (normal version) and sum < 18 (blind version)

Abbreviations: CSHA = Canadian Study on Health and Aging; PHQ-4 = Patient Health Questionnaire-4, CCI = Charlson Comorbidity Index, MoCA = Montreal Cognitive Assessment, DRAS = Delirium Risk Assessment Score

Table S5: Selected and excluded variables for logistic regression	
Selected variables	Excluded variables
Sex	
Center	
Smoking status	
Alcohol consumption	
Living alone	Marital status
	Social contact with spouse
Social contact with daughter and/or son-in-law	Children
	Grandchildren
	Social contact with daughter
	Social contact with son-in-law
Social contact with neighbor	
Anxiety in PHQ-4	
Relevant diseases (poor circulation or diabetes mellitus or blood cancer or epileptic seizures)	Poor circulation
	Diabetes mellitus
	Blood cancer
	Epileptic seizures
	Number of relevant diseases
Length of hospital stay	
Mode of transportation	Discharge environment

Table S6: Characteristics of study population stratified according to mode of transportation (car/taxi/bus/train/tram vs. patient/disabled transport ambulance) (n=146)

Variable	Total (n=146)	Number of missings	Study population transported by car (n=95)	Number of missings	Study population transported by ambulance (n=51)	Number of missings
Age (years) , Median (Min, Q1, Q3, Max)	80.7 (70.0,76.6,84.2,97.6)	0	80.0 (70.0,75.2,83.2,94.6)	0	82.4 (70.2,78.2,86.8,97.6)	0
Women , n (%)	83 (56.9)	0	51 (53.7)	0	32 (62.8)	0
School education , n (%)						
≤ 10 years	100 (68.5)	0	69 (72.6)	0	31 (60.8)	0
> 10 years	46 (31.5)		26 (27.4)		20 (39.2)	
Migration background , n (%)	17 (11.6)	0	11 (11.6)	0	6 (11.8)	0
Center						
Ulm University Hospital	63 (43.2)	0	36 (37.9)	0	27 (52.9)	0
Heidelberg Geriatrics	31 (21.2)		14 (14.7)		17 (33.3)	
Heidelberg University Hospital	26 (17.8)		24 (25.3)		2 (3.9)	
Tuebingen University Hospital	26 (17.8)		21 (22.1)		5 (9.8)	
Systolic blood pressure (mmHg) on admission , Median (Min, Q1, Q3, Max)	130 (86,115,145,190)	9	130 (90,117.5,147,180)	7	130 (86,115,145,190)	2
Diastolic blood pressure (mmHg) on admission , Median (Min, Q1, Q3, Max)	70 (40,65,80,109)	9	70 (40,70,80,100)	7	70 (40,60,80,109)	2
Smoking status , n (%)						
non-smoker	76 (52.1)	0	52 (54.7)	0	24 (47.1)	0
ex-smoker	67 (45.9)		41 (43.2)		26 (51.0)	
current smoker	3 (2.1)		2 (2.1)		1 (2.0)	
Alcohol consumption , n (%)						
never	36 (24.7)	0	26 (27.4)	0	10 (19.6)	0
formerly	30 (20.6)		14 (14.7)		16 (31.4)	
currently	80 (54.8)		55 (57.9)		25 (49.0)	
Marital status , n (%)						
married/partnership	78 (53.4)	0	55 (57.9)	0	23 (45.1)	0
single	10 (6.9)		5 (5.3)		5 (9.8)	
divorced/separated	5 (3.4)		3 (3.2)		2 (3.9)	
widowed	53 (36.3)		32 (33.7)		21 (41.2)	
Children , n (%)	131 (89.7)	0	86 (90.5)	0	45 (88.2)	0
Grandchildren , n (%)	106 (72.6)	0	70 (73.7)	0	36 (70.6)	0
Current housing situation , n (%)						
own household	136 (93.2)	0	92 (96.8)	0	44 (86.3)	0
household of children/grandchildren/ other relatives	1 (0.7)		0		1 (2.0)	
assisted living	9 (6.2)		3 (3.2)		6 (11.8)	
Living alone, n (%)	68 (46.6)	0	39 (41.1)	0	29 (56.9)	0
Lubben						
Median (Min, Q1, Q3, Max)	16 (0,11,20.5,30)	10	17 (5,12.5,21,30)	7	14.5 (0,9,19,28)	3
social isolation (< 12) , n (%)	36 (26.5)		17 (19.3)		19 (39.6)	
social support (≥ 12), n (%)	100 (73.5)		71 (80.7)		29 (60.4)	
Social contact with ... , n (%)						
Spouse	80 (54.8)	0	56 (59.0)	0	24 (47.1)	0
Sister	61 (41.8)	0	45 (47.4)	0	16 (31.4)	0
Brother	56 (38.6)	1	32 (34.0)	1	24 (47.1)	0
Daughter	85 (58.2)	0	57 (60.0)	0	28 (54.9)	0
Son	86 (58.9)	0	54 (56.8)	0	32 (62.8)	0

Table S6: Characteristics of study population stratified according to mode of transportation (car/taxi/bus/train/tram vs. patient/disabled transport ambulance) (n=146)

Variable	Total (n=146)	Number of missings	Study population transported by car (n=95)	Number of missings	Study population transported by ambulance (n=51)	Number of missings
Daughter-in-law	63 (43.2)	0	42 (44.2)	0	21 (41.2)	0
Son-in-law	64 (43.8)	0	47 (49.5)	0	17 (33.3)	0
Daughter and/or son-in-law		0		0		0
one of both	23 (15.8)		12 (12.6)		11 (21.6)	
both	63 (43.2)		46 (48.4)		17 (33.3)	
Friend	129 (88.4)	0	87 (91.6)	0	42 (82.4)	0
Neighbor	131 (89.7)	0	88 (92.6)	0	43 (84.3)	0
Barthel Index, Median (Min, Q1, Q3, Max)	85 (0,60,100,100)	9	100 (25,80,100,100)	6	55 (0,45,65,100)	3
Hearing problems, n (%)	69 (47.3)	0	48 (50.5)	0	21 (41.2)	0
Vision problems, n (%)	88 (60.3)	0	62 (65.3)	0	26 (51.0)	0
Fall during last 3 months, n (%)	72 (49.3)	0	36 (37.9)	0	36 (70.6)	0
Walking aid, n (%)	74 (50.7)	0	35 (36.8)	0	39 (76.5)	0
CSHA Clinical Frailty Scale (1=very fit, 9=terminally ill), median (Min, Q1, Q3, Max)	4 (1,3,5,7)	1	3 (1,3,4,7)	0	5 (2,4,6,7)	1
Subjective general health, n (%)		3		2		1
poor/fair	77 (53.9)		47 (50.5)		30 (60.0)	
good/very good/excellent	66 (46.2)		46 (49.5)		20 (40.0)	
Subjective mental health, n (%)		4		3		1
poor/fair	27 (19.0)		15 (16.3)		12 (24.0)	
good/very good/excellent	115 (81.0)		77 (83.7)		38 (76.0)	
Depression in PHQ-4, n (%)	38 (26.2)	1	20 (21.1)	0	18 (36.0)	1
Anxiety in PHQ-4, n (%)	24 (16.4)	0	13 (13.7)	0	11 (21.6)	0
Comorbidities						
Cardiovascular diseases (heart attack, coronary heart disease, valvular heart diseases, heart failure, cardiac arrhythmia, peripheral artery occlusive disease, other arterial disorders), n (%)	106 (72.6)	0	71 (74.7)	0	35 (68.6)	0
Hypertension, n (%)	105 (71.9)	0	74 (77.9)	0	31 (60.8)	0
Diabetes mellitus, n (%)	39 (26.7)	0	30 (31.6)	0	9 (17.7)	0
Chronic lung disease, n (%)	24 (16.4)	0	14 (14.7)	0	10 (19.6)	0
Sleep apnea syndrome, n (%)	9 (6.2)	0	5 (5.3)	0	4 (7.8)	0
Malignant tumor disease, n (%)	38 (26.0)	0	25 (26.3)	0	13 (25.5)	0
Depression, n (%)	33 (22.6)	0	15 (15.8)	0	18 (35.3)	0
Stroke, n (%)	25 (17.1)	0	14 (14.7)	0	11 (21.6)	0
Paralysis, n (%)	9 (6.2)	0	5 (5.3)	0	4 (7.8)	0
Traumatic brain injury, n (%)	12 (8.2)	0	8 (8.4)	0	4 (7.8)	0
Dementia, n (%)	11 (7.5)	0	6 (6.3)	0	5 (9.8)	0
Parkinson's disease, n (%)	4 (2.7)	0	2 (2.1)	0	2 (3.9)	0
Cerebral hemorrhage, n (%)	6 (4.1)	0	5 (5.3)	0	1 (2.0)	0
CCI, Median (Min, Q1, Q3, Max)	2 (0,1,4,10)	0	2 (0,1,4,10)	0	2 (0,1,4,8)	0

Table S6: Characteristics of study population stratified according to mode of transportation (car/taxi/bus/train/tram vs. patient/disabled transport ambulance) (n=146)

Variable	Total (n=146)	Number of missings	Study population transported by car (n=95)	Number of missings	Study population transported by ambulance (n=51)	Number of missings
Relevant diseases (poor circulation or diabetes mellitus or blood cancer or epileptic seizures), n (%)	81 (55.5)	0	51 (53.7)	0	30 (58.8)	0
Number of medicines, Median (Min, Q1, Q3, Max)	9 (2,6,12,20)	0	9 (2,6,11,20)	0	11 (5,7,13,18)	0
Polymedication (≥ 5 medicines), n (%)	135 (92.5)	0	84 (88.4)	0	51 (100)	0
Cognition						
MoCA						
Blind version, n (%)	4 (2.7)		3 (3.2)		1 (2.0)	
Sum score (without blind), Median (Min, Q1, Q3, Max)	22 (10,19,24,29)	22	22 (13,20,25,29)	9	20 (10,17,24,29)	13
Sum score (only blind), Median (Min, Q1, Q3, Max)	15 (9,11,19.5,22)	0	13 (9,9,17,17)	0	22 (22,22,22,22)	0
Conspicuously ¹ (incl. blind), n (%)	106 (85.5)	22	72 (83.7)	9	34 (89.5)	13
Subjective memory impairment, n(%)		0		0		0
yes	84 (57.5)		52 (54.7)		32 (62.8)	
no	59 (40.4)		41 (43.2)		18 (35.3)	
unknown	3 (2.1)		2 (2.1)		1 (2.0)	
History of previous delirium, n (%)		0		0		0
yes	21 (14.4)		10 (10.5)		11 (21.6)	
no	122 (83.6)		82 (86.3)		40 (78.4)	
unknown	3 (2.1)		3 (3.2)		0	
DRAS, Median (Min, Q1, Q3, Max)	7 (1,5,8,12)	8	6 (1,5,8,12)	6	7 (2,6,8,11)	2
Discharge/transfer (T1)						
Length of hospital stay (days), Median (Min, Q1, Q3, Max)	8 (1,4,15,61)	0	6 (1,3,11,26)	0	15 (2,8,22,61)	0
Discharge environment, n (%)		0		0		44
unknown (been there < 6 months)	46 (31.5)		4 (4.2)		42 (82.4)	
of these n (%) never been there	39 (84.8)		3 (75.0)		36 (85.7)	
known (been there ≥ 6 months)	100 (68.5)		91 (95.8)		9 (17.7)	
of these n (%) home	98 (98.0)		90 (98.9)		8 (88.9)	

¹ Defined as sum < 26 (normal version) and sum < 18 (blind version)

Abbreviations: CSHA = Canadian Study on Health and Aging; PHQ-4 = Patient Health Questionnaire-4, CCI = Charlson Comorbidity Index, MoCA = Montreal Cognitive Assessment, DRAS = Delirium Risk Assessment Score

Table S7: I-CAM-S, FAM-CAM and Nu-DESC in the total study population (n=212)				
instrument	available, n	positive, n (%)	missing, n	possibly missed delirium cases, n
I-CAM-S	175	5 (2.9)	37	1
FAM-CAM	78	9 (11.5)	134	15
Nu-DESC	60	6 (10)	152	15

Table S8: Delirium detection at T1 and T2 with different instruments					
Delirium positive at timepoint	Delirium cases/n	I-CAM-S	FAM-CAM	Nu-DESC	FAM-CAM + Nu-DESC
T1 only	8	2	4	2	
T2 only	5	2	2	1	
T1 + T2	2		1		1
T1 (missing data at T2)	1	1			
T2 (missing data at T1)	3		1	2	

Table S9: 7-days delirium incidence proportion stratified by study centers		
Study population with information on companionship and delirium (n=92)	Delirium cases/n	7-days delirium incidence proportion (%) [95 % CI]
Ulm University Hospital	6/30	20.0 [9.5; 37.3]
Heidelberg Geriatrics	9/28	32.1 [17.9; 50.7]
Heidelberg University Hospital	0/14	0.0 [0.0; 19.3]
Tuebingen University Hospital	4/20	20.0 [8.1; 41.6]

Table S10: Logistic regression evaluating the association between companionship and 7-days delirium incidence			
		Model 1 unadjusted OR [95% CI]	Model 2 adjusted for the DRAS and center OR [95% CI]
Cross-sectoral companionship	not-optimal	Ref.	Ref.
	optimal	1.58 [0.56; 4.46]	1.87 [0.60; 5.85]
C-index		0.553	0.684