Geriatrisch co-management voor kwetsbare ouderen

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Key messages

Giving older people who are admitted to hospital access to specialist co-ordinated geriatric assessment (CGA) services on admission to hospital increases the chances that they will be alive in their own homes at follow-up.

KCE

Federaal Kenniscentrum voor de Gezondheidszorg
Centre Fédéral d'Expertise des Soins de Santé
Belgian Health Care Knowledge Centre

COMPREHENSIVE GERIATRIC CARE IN HOSPITALS: THE ROLE OF INPATIENT GERIATRIC CONSULTATION TEAMS

MIEKE DESCHODT, VEERLE CLAES, BASTIAAN VAN GROOTVEN, KOEN MILISEN, BENOIT BOLAND, JOHAN FLAMAING, ALAIN DENIS, FRANÇOIS DAUE, LUT MERGAERT, CARL DEVOS, PATRIEK MISTIAEN, KOEN VAN DEN HEEDE

Internal geriatric liaison is needed

Current practice: high level of variability

Reactive consultation models not likely to be effective

Proactive models are needed

1. Proactive consultation
2. Co-management

Geriatric co-management

“A shared responsibility and decision making between at least one primary treating physician and a geriatrician or an interdisciplinary geriatric team”

- CGA – based model
- International perspective: medically oriented

Effectiveness of in-hospital geriatric co-management: a systematic review and meta-analysis

Bastiaan Van Grootven[1], Johan Flamaing[2,3], Bernadette Dierckx de Casterlé[1], Christophe Dubois[4], Katleen Fagard[3], Marie-Christine Herregods[4,5], Miek Hornikx[6], Annouschka Laenen[7], Bart Meuris[4], Steffen Rex[5,8], Jos Tournoy[2,3], Koen Milisen[1,3], Mieke Deschodt[1,3,9]

Current Opinion

Impact of geriatric co-management programmes on outcomes in older surgical patients: update of recent evidence

Bastiaan Van Grootven[a,b], Daniel Ari Mendelson[c,d], and Mieke Deschodt[e,f]

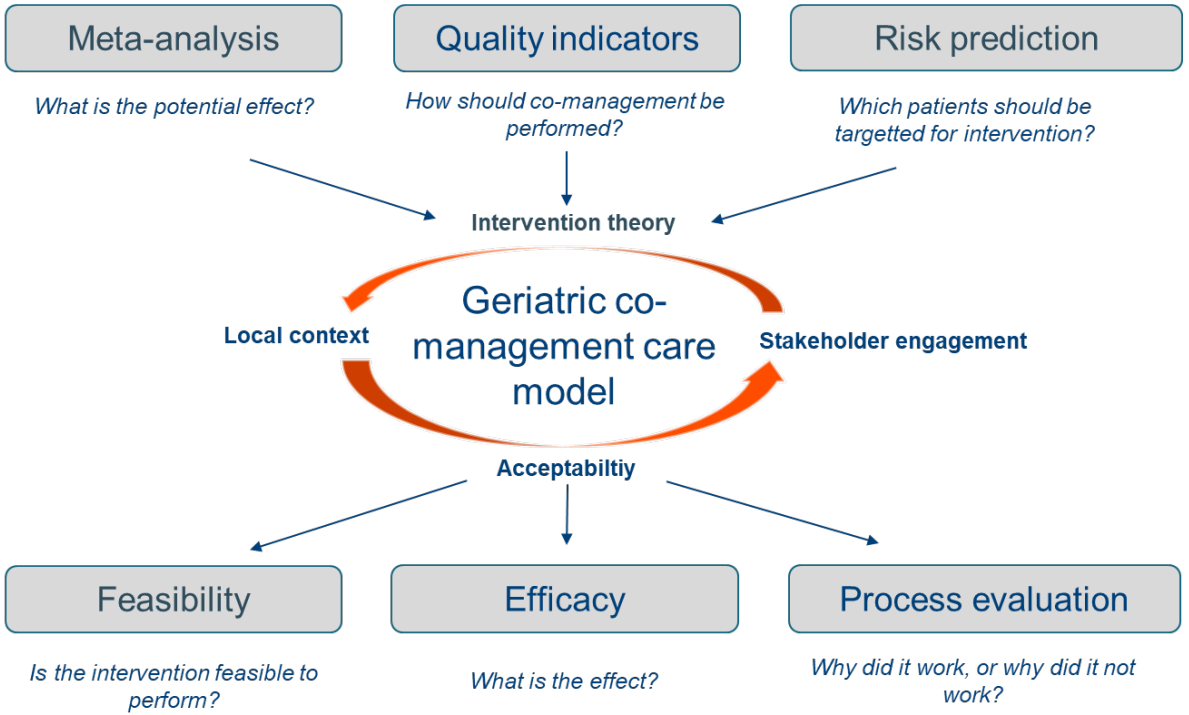
- Improved functional status
- Reduced number of complications
- Reduced hospital stay
- Mortality?

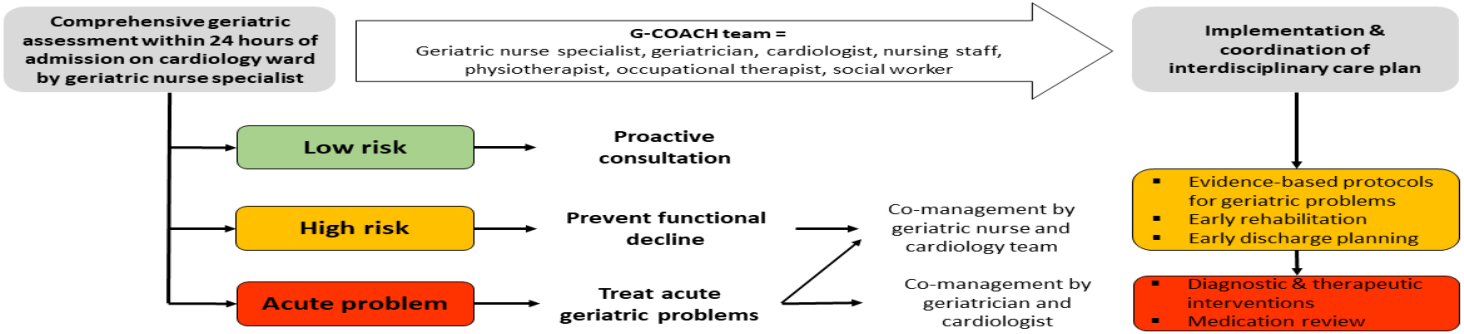
Table 2. Results from systematic reviews

Outcome	Previous systematic reviews	Current review
Time to surgery		
Mean time	SMD = −0.2 (−0.4 to 0.2)* [30▪] Decrease, *P* = 0.045 [32]	MD = −0.65 h (−3.1 to 4.4)
Within 48 h	–	ARD = +18% (−23 to 60%)
Complications		
Incidence	NNT = 2 to 7 patients [10]	ARD = −4% (−10 to 2%)
Length of stay	MD = −2.6 days (−4.7 to −0.5) [10] MD = −0.1 days (−3.7 to 3.6) [12] SMD = −0.6 (−1.0 to −0.3)* [30▪] MD = −3.7 days [13] Decrease, *P* = 0.004 [32]	MD = −1.4 days (−2.7 to −0.1)
Mortality, hospital	OR = 0.7 (0.4–1.1) [10] RR = 0.7 (0.3–1.6) [12] RR = 0.6 (0.4–0.8) [31] Decrease, *P* = 0.003 [32]	ARD = −2% (−4 to −0%)
Readmissions, 30 days FU	OR = 1.2 (0.6–2.6) [10] No effect, *P* = 0.45 [32]	ARD = −3% (−5 to −0%)

Reported are the results from the current and previous reviews on geriatric co-management. The data is reported as effect sizes with 95% confidence Intervals. ARD, absolute risk difference; FU, follow-up; MD, mean difference; NNT, number needed to treat; SMD, standardized mean difference.

G-COACH


Meta-analysis
What is the potential effect?
Quality indicators
How should co-management be performed?
Risk prediction
Which patients should be targetted for intervention?
Intervention theory
Local context
Geriatric co-management care model
Stakeholder engagement
Acceptabiltiy
Feasibility
Is the intervention feasible to perform?
Efficacy
What is the effect?
Process evaluation
Why did it work, or why did it not work?


Comprehensive geriatric assessment within 24 hours of admission on cardiology ward by geriatric nurse specialist
G-COACH team =
Geriatric nurse specialist, geriatrician, cardiologist, nursing staff, physiotherapist, occupational therapist, social worker
Implementation & coordination of interdisciplinary care plan
Low risk
Proactive consultation
High risk
Prevent functional decline
Co-management by geriatric nurse and cardiology team
Acute problem
Treat acute geriatric problems
Co-management by geriatrician and cardiologist
Evidence-based protocols for geriatric problems
Early rehabilitation
Early discharge planning
Diagnostic & therapeutic interventions
Medication review

Geriatric co-management for cardiology patients in the hospital: A quasi-experimental study

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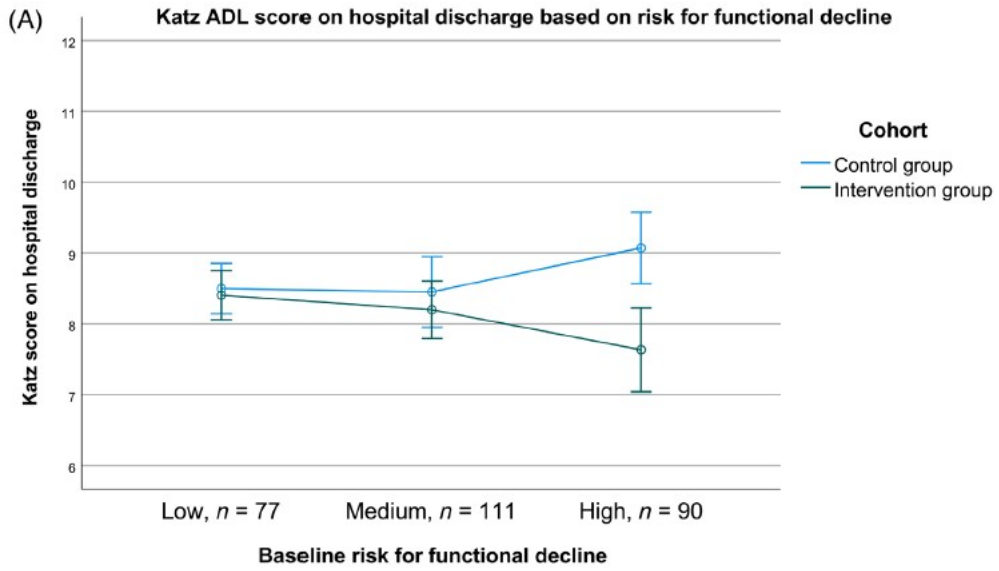
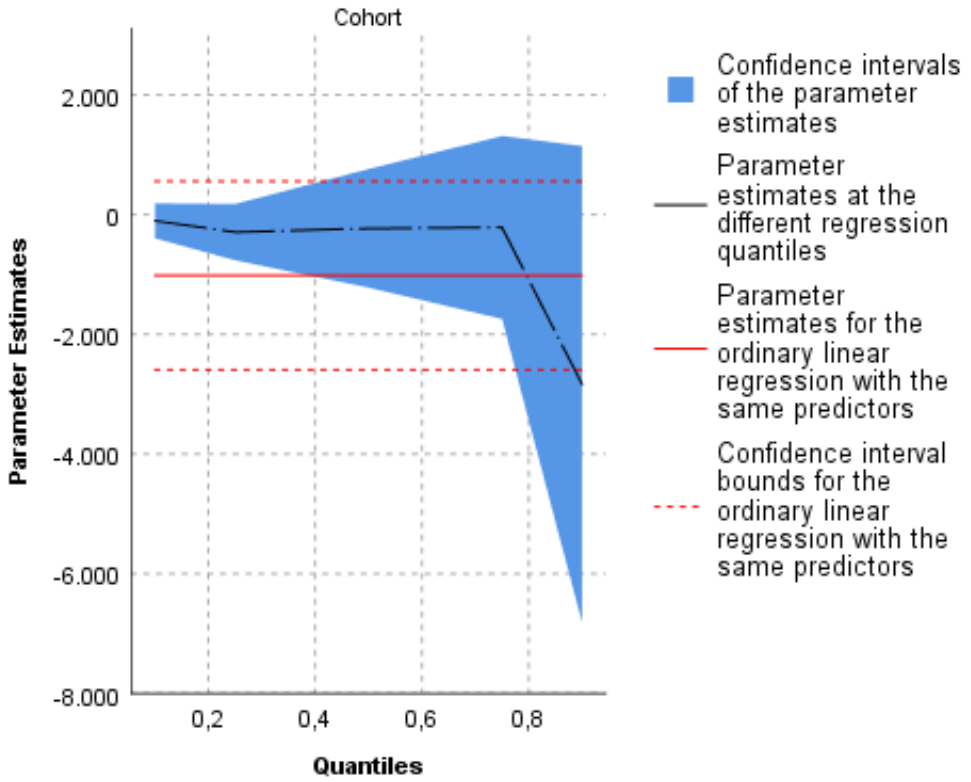
TABLE 1 Baseline characteristics of patients included in the study

Baseline characteristics	Control (n = 158)	Intervention (n = 151)	p-value
Age, mean (SD)	84.9 (4.8)	84.5 (5.2)	0.482
Male gender, n (%)	82 (52)	82 (54)	0.672
Living situation, n (%)			0.895
Home	140 (89)	131 (87)	
Retirement home	5 (3)	4 (3)	
Nursing home	13 (8)	13 (9)	
Reason for hospital admission, n (%)			0.055
Heart failure	60 (38)	65 (43)	
Valvular heart disease	5 (3)	3 (2)	
Ischemic heart problem	16 (10)	4 (3)	
Heart rhythm disorders	22 (14)	15 (10)	
Transcatheter Aortic Valve Implantation	38 (24)	39 (25)	
Other	17 (11)	25 (17)	
Katz ADL (6–18), mean (SD)			
Two weeks before admission	8.6 (2.3)	8.6 (2.6)	0.981
On hospital admission	9.0 (2.7)	9.6 (3.1)	0.072
Mini Cog (0–5), mean (SD)	2.8 (1.5)	2.4 (1.5)	0.032
Geriatric Depression Scale (0–10), mean (SD)	2.6 (2.3)	2.2 (2.3)	0.163
Anxiety[a] (0–21), mean (SD)	4.2 (3.6)	3.4 (3.3)	0.043
Mini Nutritional Assessment (0–14), mean (SD)	8.9 (2.4)	8.8 (2.4)	0.790
Life Space Assessment (0–120), mean (SD)	39.9 (26.0)	39 (22.6)	0.779
Short Physical Performance Battery (0–12), mean (SD)	3.8 (3.5)	4.1 (3.3)	0.444
Grip strength (mmHg), mean (SD)	20.3 (9.5)	19.8 (7.6)	0.624
Cumulative Illness Rating Scale (0–56), mean (SD)	20.9 (5.9)	19.2 (5.2)	0.007
Number of medications, mean (SD)	8.8 (3.7)	9.2 (3.6)	0.280

TABLE 2 Outcomes and effect of co-management during hospitalization

Outcome	Control group	Intervention group	Effect size (95% CI)	*p*-value
Functional status (Katz ADL), mean (95% CI)	9.55 (9.2 to 9.9)	8.99 (8.7 to 9.3)	MD = −0.56 (−1.0 to −0.1)	0.019
Functional decline (Katz ADL), *n* (%)	68/158 (43.0)	38/151 (25.2)	OR = 0.5 (0.3 to 0.8)	0.006
Grip Strength (mmHg), mean (95% CI)	20.2 (19.6 to 20.8)	20.3 (19.6 to 20.9)	MD = 0.1 (−0.4 to 0.6)	0.887
Physical Performance (SPPB), mean (95% CI)	4.6 (4.2 to 4.9)	4.7 (4.3 to 5.1)	MD = 0.1 (−0.2 to 0.4)	0.700
Delirium (3D CAM), *n* (%)	30/158 (19.0)	9/151 (6.0)	OR = 0.3 (0.1 to 0.7)	0.003
Nosocomial infections, *n* (%)	26/158 (16.5)	10/151 (6.6)	OR = 0.3 (0.1 to 0.6)	0.003
Obstipation, *n* (%)	23/158 (14.6)	7/151 (4.6)	OR = 0.3 (0.1 to 0.9)	0.026
Number of fallers, *n* (%)	13/158 (8.2)	12/151 (8.0)	OR = 0.6 (0.2 to 1.8)	0.397
Cognitive status (Mini-Cog), mean (95% CI)	2.9 (2.7 to 3.1)	2.8 (2.6 to 3.0)	MD = −0.1 (−0.3 to 0.0)	0.376
Quality of life index (EQ-5D), mean (95% CI)	0.52 (0.5 to 0.6)	0.55 (0.5 to 0.6)	MD = 0.03 (−0.01 to 0.08)	0.146
Perceived health (VAS), mean (95% CI)	65.8 (63.2 to 68.4)	65.1 (62.3 to 67.9)	MD = −0.7 (−2.6 to 1.2)	0.729
Length of stay (days), mean (95% CI)	9.4 (8.5 to 10.3)	8.9 (8.0 to 9.8)	MD = −0.5 (−1.8 to 0.8)	0.426


(A)
Katz ADL score on hospital discharge based on risk for functional decline
Katz score on hospital discharge
12
11
10
9
8
7
6
Low, n = 77
Medium, n = 111
High, n = 90
Baseline risk for functional decline
Cohort
Control group
Intervention group


Cohort
2.000
0
-2.000
-4.000
-6.000
-8.000
Parameter Estimates
0,2
0,4
0,6
0,8
Quantiles
Confidence intervals of the parameter estimates
Parameter estimates at the different regression quantiles
Parameter estimates for the ordinary linear regression with the same predictors
Confidence interval bounds for the ordinary linear regression with the same predictors

Impact of geriatric co-management on outcomes in hospitalised cardiology patients aged 85 and over

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Table 3 Secondary outcomes compared between intervention group and control group

			Univariate analysis			Multivariate analysis		
	Control group $n=542$	Intervention group $n=621$	Effect size	95% CI	*p*-value	Effect size	95% CI	*p*-value
LOS in days median (range)	6 (72)	5 (51)	–0.08†		0.01*	–0.11¶	–0.21—0.003	0.04*
In-hospital mortality $n=1151$ *n* (%)	60 (11.0)	55 (8.9)	0.78‡	0.53–1.15	0.21	0.82	0.55–1.22	0.34
3-month mortality $n=1151$ *n* (%)	120 (22.3)	125 (20.4)	0.90‡	0.68–1.19	0.45	0.93	0.6–1.24	0.61
Change in residence situation $n=1048$ *n* (%)	49 (10.2)	64 (11.3)	1.13‡	0.76–1.67	0.55	1.10	0.72–1.67	0.65
Discharge to geriatric rehabilitation $n=1048$ *n* (%)	17 (3.5)	38 (7.2)	1.97‡	1.10–3.54	0.02*	2.02§	1.11–3.66	0.02*
Number of fallers *n* (%)	10 (1.8)	12 (1.9)	1.14‡	0.50–2.62	0.76	1.19	0.51–2.76	0.69
Patients with delirium *n* (%)	57 (10.5)	68 (11.0)	1.05‡	0.72–1.52	0.81	1.02	0.70–1.50	0.90
Number of consults mean (SD)	0.3 (0.6)	0.34(0.75)	–0.004†		0.88	0.98**	0.03–1.18	0.81

Conclusion

- CGA in the hospital works
- Co-management offers more ‘control’ over patient care than tradition geriatric consultation
- Intensive collaboration facilitates structural change in non-geriatrics units
- Resource intensive, but could be cost neutral because of reduced complications

Thank you


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