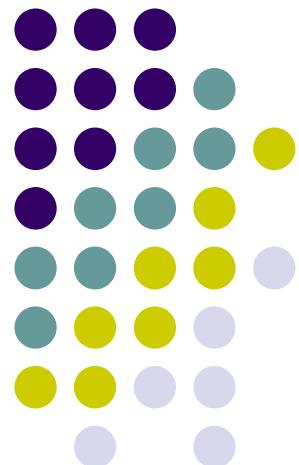


# Interne Liaison Interne

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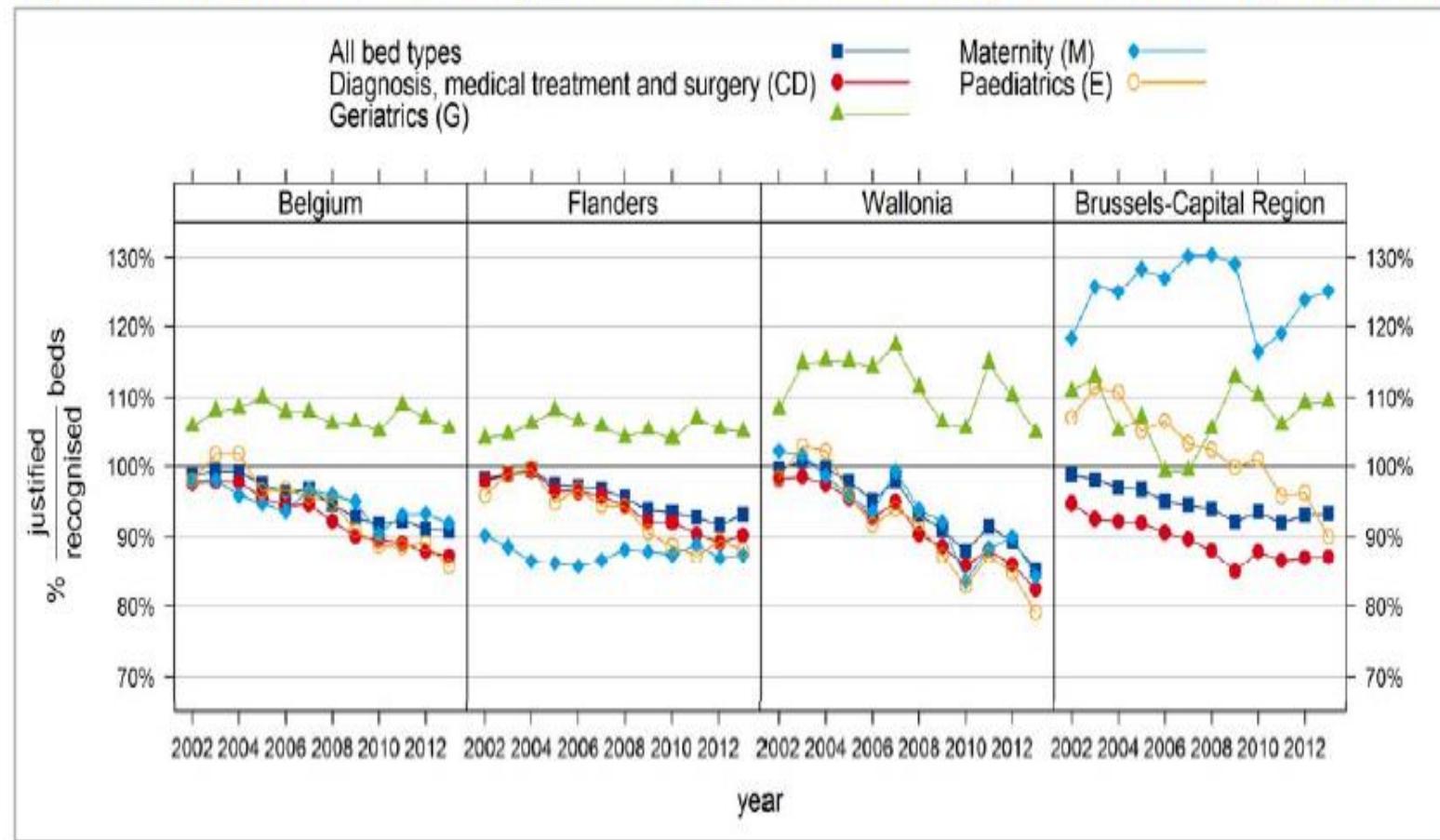
Prof. Dr. J. Flamaing  
Dept. Gerontology & Geriatrics  
KULeuven





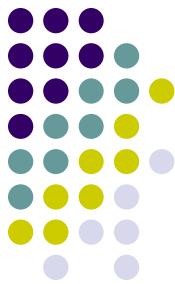
# G-beds in Belgium

Figure 2 – Comparison of the number of justified and accredited beds for Belgium and the three regions per bed type, 2002-2013



Source: FOD-SPF<sup>31</sup>

# IGCT = Internal Geriatric Consultation Teams



- ZGP – PSSA
  - Internal (external) geriatric liaison
- Financing of the IGCT
- Operationalization of ZGP-PSSA
- Conclusion



# Het zorgprogramma voor de Geriatrische Patiënt

KB 2007, 2014

**Art. 40.** Onze Minister van Volksgezondheid is belast met de uitvoering van dit besluit.

Gegeven te ...*Brussel, 29 januari 2007*.

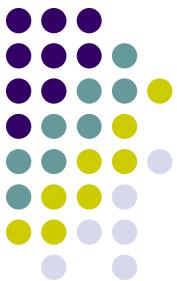
**Art. 40.** Notre Ministre de la Santé publique est chargé de l'exécution du présent arrêté.

Donné à *Bruxelles, le 29 janvier 2007*.

Van Koningswege:  
De Minister van Volksgezondheid,

Par le Roi:  
Le Ministre de la Santé publique,

Rudy Demotte



# De geriatrische patiënt

- Populatie **ouder dan 75 jaar**, met tevens:
  - **Fragiliteit** en beperkte homeostase
  - Actieve **polypathologie**
  - **Atypische** klinische **beelden**
  - Verstoorde **farmacokinetica**
  - Gevaar voor **functionele** achteruitgang
  - Gevaar voor deficiënte **voeding**
  - Neiging tot inactiviteit en bedlegerigheid, toegenomen risico op opname in een instelling en afhankelijkheid bij de activiteiten van het dagelijkse leven
  - **Psychosociale** problemen



# Geriatrie in elk ziekenhuis

AZ + dienst G = ZGP

Art. 2

# Screening



- **Elke 75 plusser opgenomen in ZH en er verblijvend**

- ~~1 van de criteria?~~

Screening

- ~~Al of niet opname in het ZGP?~~
- Door een teamlid van de afdeling waar opgenomen
- Gevalideerd screeningsinstrument
- Vermelding in patiëntendossier
- Indien geen beroep op ILT -> reden vermelden in patiëntendossier



# De geriatrische zorg

- **Pluridisciplinair**
  - Diagnostisch
  - Therapeutisch
  - Revalidatie
  - Opvolging
- **Opsporen** van de geriatrische patiënten en waarborgen van de **continuïteit van de zorg**
  - In samenspraak met
    - de huisarts
    - de andere zorgverstrekkers
- **Hoofddoel:**
  - Optimaal herstel van de **functionele performantie**
  - Een zo groot mogelijke
    - zelfredzaamheid
    - levenskwaliteit



# Inhoud

1. Erkende Dienst G (KB 23-10-1964)
2. Geriatrische raadpleging Art. 14
3. Geriatrische ~~dagziekenhuis~~ daghospitalisatie Art. 15
4. Interne Liaison Art. 16
5. Externe Liaison Art. 20

Wordt op zijn minst in zijn **GEHEEL** aangeboden op één van de vestigingen van het ziekenhuis.

Art. 6-7



# Vereiste deskundigheid

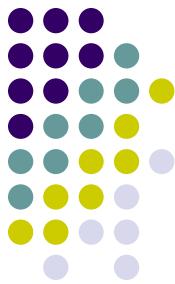
Pluridisciplinair ~~geriatrisch~~ team van het zorgprogramma:

- Minstens één voltijds geriater ~~of internist met bijzondere bekwaaming~~
- Minstens 2 verpleegkundigen met beroepstitel of bekwaamheid geriatrie
- Sociaal assistent of verpleegkundige, ~~optie sociale vrplgk~~ gespecialiseerd in de sociale gezondheidszorg
- Kinesitherapeut
- Ergotherapeut
- Logopedist
- Dieetleer
- ~~Psycholoog~~ Licentiaat/master in de psychologie, bij voorkeur oriëntatie klinische psychologie.
- Zorgkundige

Art. 12

9

# IGCT = Internal Geriatric Consultation Teams



- ZGP – PSSA
  - Screening
  - Internal (external) geriatric liaison
- Financing of the IGCT
- Operationalization of IGCT
  - Screening
  - CGA
- IGCT models
- Conclusion



# Onderdelen:

## 4. De interne liaison

- De pluridisciplinair geriatrisch deskundigheid ter beschikking stellen voor **alle** in het ZH opgenomen geriatrische patiënten
- **Pluridisciplinair team:** samenstelling (alle leden behalve soc. dienst)
  - minstens 4-2FTE
  - N = functie van aantal ~~theoretische~~-patiënten 75 plussers opgenomen in het ZH.

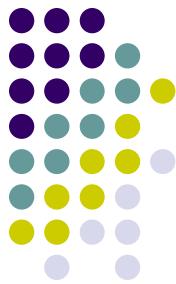
Art 16-18

- ~~Eén referentieverpleegkundige geriatrische zorg~~  
~~(met opleiding/ervaring in ger. zorg)~~
- ~~per verpleeg eenheid / chirurgisch daghospitaal~~

Art 19

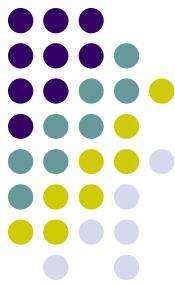
# Onderdelen:

## 4. De interne liaison



- Functie:
  - **Evaluatie** van patiënten met pos. geriatrisch profiel na screening
  - **Verslag** naar HA + patiëntendossier; patiënt wordt hiervan verwittigd
  - Geven van **aanbevelingen** aan het zorgteam en de behandelende geneesheer-specialist tijdens de hospitalisatie; aanbevelingen worden genoteerd in het patiëntendossier
  - Opstellen van aanbevelingen voor de HA om heropname te vermijden; aanbevelingen zijn beschikbaar in het patiëntendossier;
  - **Verspreiden van de geriatrische kennis** in het ziekenhuis;
- Geen zorgtaken
- Meeting 1x/week; ter beschikking in patiëntendossier + voor zorgteam

# IGCT = Internal Geriatric Consultation Teams



- ZGP – PSSA
  - Internal (external) geriatric liaison
- Financing of the IGCT
- Operationalization of ZGP-PSSA
- Conclusion



# Financiering

- Interne Geriatrische Liaison

- Aantal patiënten **75+ die niet op dienst G verblijven** of hebben verbleven worden geëxtraheerd uit MZG 2011
- Het aantal gefactureerde dagen op een bed G wordt gebruikt om de **bezettingsgraad op de G** te berekenen.
- Het gemiddeld aantal **erkende G-bedden** wordt gebruikt voor de berekening van de gemiddelde bezettingsgraad 2011 op G.



# Financiering

- Interne Geriatrische Liaison
- Berekening van deze financiering:
  - Aantal verblijven in klassieke hospitalisatie van patiënten  $\geq 75$  j DIE EXCLUSIEF BEHANDELD WORDEN OP NIET GERIATRISCHE eenheden
  - VERMINDERD met verschil tussen « reële aantal verblijven op G » en het « aantal verblijven dat overeenstemt met een bezettingsgraad van 85% ».



# Financiering

- Interne Geriatrische Liaison
  - Loonkost 58,000€/FTE
  - 2 FTE voor eerste 1000 verblijven; 0,25 FTE per begonnen schijf van 500 bijkomende verblijven boven de 1000;
  - Financiering voor minimum 2 FTE en maximum 6 FTE.



# ILT nomenclatuur

- ILT consult

- 599045
- Honorarium voor het onderzoek door de geneesheer-specialist in de geriatrie, uitgevoerd bij één op een andere dienst dan G (300) opgenomen rechthebbende, vanaf 75 jaar, op voorschrijf van de geneesheer-specialist niet-geriater, die het toezicht uitoefent
- 2 maal per hospitalisatie
- 43,26 €

- ILT overleg



# ILT nomenclatuur

- ILT consult
- ILT overleg
  - 597623
  - Honorarium voor deelname aan en leiding van een multidisciplinair teamoverleg door de geneesheer-specialist in de geriatrie voor een op een andere dienst dan G (300) opgenomen rechthebbende, vanaf 75 jaar
  - Honorarium: 10,81 €
  - Indien  $\geq 1 \times 599045$  tijdens hetzelfde verblijf
  - Max 1x/week, gedurende heel het verblijf



# Onderdelen:

## 5. De externe liaison

- De geriatrische principes en pluridisciplinaire deskundigheid
    - voor de huisarts,
    - voor de CRA,
    - Voor de andere zorgverstrekkers.
  - Doel:
    - Optimale samenwerking zorgprogramma en thuiszorg
    - Continuïteit van de zorg optimaliseren
    - Onnodige heropnames voorkomen
    - Synergieën en samenwerkingsnetwerken ontwikkelen.
- Art.20
- 
- ~~Minstens halftijds soc. vrplgk /assistent met de functie van ontslagmanager~~
    - Opdrachten m.b.t. continuïteit van de zorg (Art. 27 en 28) uitvoeren.
    - **Het zorgprogramma maakt afspraken met de soc. dienst om ontslag voor te bereiden**
- Art.21
- 
- Formele samenwerking met
    - ≥ 1 geïntegreerde diensten voor thuisverzorging
    - Huisartsenkringen
    - Rust- en Verzorgingstehuizen
    - Centra voor dagverzorging
- Art. 22

# IGCT = Internal Geriatric Consultation Teams



- ZGP – PSSA
  - Internal (external) geriatric liaison
- Financing of the IGCT
- Operationalization of ZGP-PSSA
- Conclusion

# ISAR



		Hospital use only
1.	Before the illness or injury that brought you to the Emergency, did you need someone to help you on a regular basis?	<input type="checkbox"/> YES    1 <input type="checkbox"/> NO    0
2.	Since the illness or injury that brought you to the Emergency, have you needed more help than usual to take care of yourself?	<input type="checkbox"/> YES    1 <input type="checkbox"/> NO    0
3.	Have you been hospitalized for one or more nights during the past 6 months (excluding a stay in the Emergency Department)?	<input type="checkbox"/> YES    1 <input type="checkbox"/> NO    0
4.	In general, do you see well?	<input type="checkbox"/> YES    0 <input type="checkbox"/> NO    1
5.	In general, do you have serious problems with your memory?	<input type="checkbox"/> YES    1 <input type="checkbox"/> NO    0
6.	Do you take more than three different medications every day?	<input type="checkbox"/> YES    1 <input type="checkbox"/> NO    0

TOTAL: \_\_\_\_\_



# TRST

## **TRST**

1. Cognitive impairment
2. Five or more medications
3. Difficulty walking / transferring, or recent falls
4. ED use in the last 30 days or hospitalization in the last 3 months
5. ED staff concerns  
(i.e., depression; incontinence; inadequate supports; substance abuse; neglect / abuse; nutritional issues; etc.)

# GRP



RISICO	SCORE
1. Aanwezigheid van een cognitieve stoornis (b.v. desoriëntatie, dementie, delirium)	2
2. Alleenwonend of geen hulp mogelijk door inwonende partner/familie	1
3. Moeilijkheden bij stappen of transfers of gevallen in het voorbije jaar	1
4. Hij/zij werd gehospitaliseerd in de afgelopen 3 maanden	1
5. De patiënt gebruikt ≥ 5 geneesmiddelen	1
<b>Totaal</b>	



## RISICO PROFIEL (GRP)\*

Waardering alle patiënten van 0 tot 100 per risicostandaard op de dag na opname op de middelste leeftijd van de patiënt zoals die was vóór de hospitalisatie door de oorspronkelijke scores in de "JA" kolom op de tellen: de risicoscore.  
Als meer dan 50% zorgvuldig van de behandelende arts (of formele en informele zorgverlener) kanfrei GRP gevoert worden op het nummer van de 75% van de hospitalisatie  
en inschatting dat een thuis opstap tussen 8.00 en 16.00 uur het risicoprofiel daagt.

RISICO	JA	NEEN
1. Aanwezigheid van een cognitieve stoornis (dementie)	2	0
2. Help mogelijk door inwonende partner/familie	1	0
3. Transfers of gevallen in de afgelopen 3 maanden	1	0
4. De patiënt gebruikt ≥ 5 geneesmiddelen	1	0
<b>Totaalscore:</b>		

\*Aangepast en overschat voor senioren (Engel, Rijken, en Lang) (Hekster et al., 2007).





# VIP

	ja	nee
Woont U samen met iemand anders?	0	1
Telefoneert U naar mensen buiten Uw familie?	0	1
Wast en kleedt U zichzelf zonder de minste hulp?	0	1
Totaalscore		



# Screening instruments

- Summary

- Fair sensitivity
- Poor specificity
- Outcome dependent



False positives ↑  
Unnecessary ILT  
evaluation  
intervention

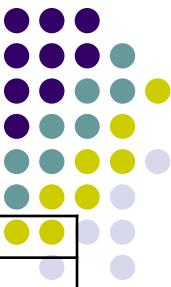
- Readmission
- Functional decline
- Institutionalisation
- Geriatric profile

- Setting dependent

- ED – Hospital
- Community - Residential



Specificity ↑  
Two step approach?  
Mini-CGA?



# SEGA

LUIK A : Beschrijving geriatrisch profiel en risicofactoren			
	0	1	2
Leeftijd	74 jaar of minder	Tussen 75 en 84 jaar	85 jaar of meer
Herkomst	Thuis	Thuis met hulp	RO / RVT
Geneesmiddelen (soorten)	3 of minder	4 tot 5	6 of meer
Cognitieve functies	Normaal	Weinig aangetast	Belangrijke aantasting (acute verwardheid, dementie)
Gemoedstoestand	Normaal	Soms angstig	Vaak bedroefd en depressief
Perceptie van gezondheid (algemeen)	Beter	Goed	Minder goed
Val gedurende de laatste 6 maanden	Geen	Eén en niet ernstig	Ernstige val of reden voor opname
Voeding	Normaal, stabiel gewicht  Normaal voorkomen	Verlies van eetlust en/of gewichtsverlies (3 kg/3 maand)	Duidelijk ondervoed (BMI< 21)
Geassocieerde ziekten (co-morbiditeit)	Geen buiten de reden van opname	Van 1 tot 3	Meer dan 3, of CVA of kanker of ernstig COPD, of ernstig hartfalen
ADL opstaan/stappen, (mobiliteit)	Autonom	Met steun	Niet mogelijk
ADL continentie (urinair en/of faecaal)	Autonom	Accidenteel incontinentie	Incontinentie
ADL voeding (nemen van maaltijden)	Autonom	Hulp bij bereiding	Hulp bij het eten
iADL (maaltijd, telefoon,medicatie)	Autonom	Hulp	Afhankelijk
/ 26			



# SHERPA score

	Risk score
Fall in the previous year	
No	0
Yes	2
MMSE < 15/21	
No	0
Yes	2
Bad self-perceived health	
No	0
Yes	1.5
Age (years)	
<75	0
75–84	1.5
>84	3
Pre-admission IADL score	
6–7	0
5	1
3–4	2
0–1–2	3

# G8

	Items	Mogelijke antwoorden	Score
A	Bent u afgelopen 3 maanden minder gaan eten als gevolg van verminderde eetlust, spijsverteringsproblemen, problemen bij kauwen en/of slikken?	0 = belangrijk verlies van eetlust 1 = matig verlies van eetlust 2 = geen verlies van eetlust	.....
B	Gewichtsafname gedurende de 3 afgelopen maanden	0 = gewichtsafname groter dan 3 kg. 1 = weet niet 2 = gewichtsafname tussen 1 en 3 kg. 3 = geen gewichtsafname	.....
C	Mobiliteit	0 = aan bed of stoel gebonden 1 = in staat zelfstandig uit bed/stoel te komen, maar gaat niet naar buiten 2 = gaat zelfstandig naar buiten	.....
E	Neuropsychologische problemen	0 = ernstig dement of depressief 1 = licht dement of depressief 2 = geen psychologische problemen	.....
F	BMI: (gewicht in kg) / (lengte in m <sup>2</sup> )	0 = BMI <19 1 = 19 ≤ BMI < 21 2 = 21 ≤ BMI < 23 3 = BMI ≥23	.....
H	Neemt de patiënt meer dan 3 geneesmiddelen?	0 = ja 1 = neen	.....
P	Vindt de patiënt dat hij gezonder is, of minder gezond, dan de meeste mensen van zijn leeftijd?	0,0 = minder gezond 0,5 = weet niet 1,0 = even gezond 2,0 = gezonder	.....
	Leeftijd	0 = > 85 1 = 80 - 85 2 = < 80	.....
	<b>Totaalscore (0-17)</b>		.....



<b>Mobiliteit</b> Kunt u zonder enige hulp van iemand anders zelfstandig deze taak uitvoeren? (gebruik maken van hulpmiddelen als stok, rolator, rolstoel, geldt als zelfstandig)	ja nee
1. boodschappen doen 2. buitenhuis rondlopen (rondom huis of naar de buren) 3. aan- en uitkleden 4. toiletbezoek	
<b>Lichamelijke fitheid</b> 5. Welk rapportcijfer geeft u zichzelf voor uw lichamelijke fitheid? (1 staat voor heel slecht en 10 staat voor uitstekend)	0 tot 10
<b>Visus</b> 6. Ondervindt u problemen in het dagelijks leven door slecht zien?	ja nee
<b>Gehoor</b> 7. Ondervindt u problemen in het dagelijks leven door slecht horen?	ja nee
<b>Voeding</b> 8. Bent u in de afgelopen 6 maanden veel (6 kg) afgevallen zonder dit zelf te willen? (of 3 kg in één maand)	ja nee
<b>Co-morbiditeit</b> 9. Gebruikt u momenteel 4 of meer verschillende soorten medicijnen?	ja nee
<b>Cognitie</b> 10. Heeft u klachten over uw geheugen (of is patiënt bekend met een dementie)?	nee / soms ja
<b>Psychosociaal</b> 11. Ervaart u wel eens een leegte om zich heen? 12. Mist u wel eens mensen om zich heen? 13. Voelt u zich wel eens in de steek gelaten? 14. Heeft u zich de laatste tijd somber of neerslachtig gevoeld? 15. Heeft u zich de laatste tijd nerveus of angstig gevoeld?	nee soms / ja

**Scoring:** range 0 tot 15

Vraag 1 t/m 4: zelfstandig (ja) = 0; niet-zelfstandig (nee) = 1

Vraag 5: 0-6 = 1; 7-10 = 0

Vraag 10: nee en soms = 0; ja = 1

Vraag 11 t/m 15: nee = 0; soms en ja = 1



# Edmonton frail scale

The Edmonton Frail Scale:

Score: \_\_\_/17

Frailty domain	Item	0 point	1 point	2 points
Cognition	Please imagine that this pre-drawn circle is a clock. I would like you to place the numbers in the correct positions then place the hands to indicate a time of 'ten after eleven'	No errors	Minor spacing errors	Other errors
General health status	In the past year, how many times have you been admitted to a hospital?	0	1–2	≥2
	In general, how would you describe your health?	'Excellent', 'Very good', 'Good'	'Fair'	'Poor'
Functional independence	With how many of the following activities do you require help? (meal preparation, shopping, transportation, telephone, housekeeping, laundry, managing money, taking medications)	0–1	2–4	5–8
Social support	When you need help, can you count on someone who is willing and able to meet your needs?	Always	Sometimes	Never
Medication use	Do you use five or more different prescription medications on a regular basis?	No	Yes	
	At times, do you forget to take your prescription medications?	No	Yes	
Nutrition	Have you recently lost weight such that your clothing has become looser?	No	Yes	
Mood	Do you often feel sad or depressed?	No	Yes	
Continenence	Do you have a problem with losing control of urine when you don't want to?	No	Yes	
Functional performance	I would like you to sit in this chair with your back and arms resting. Then, when I say 'GO', please stand up and walk at a safe and comfortable pace to the mark on the floor (approximately 3 m away), return to the chair and sit down'	0–10 s	11–20 s	One of >20 s patient unwilling, or requires assistance

# ILT approach



## **STEP 1: CASE-FINDING**

- using a screening tool
- performed by primary nurse of non-geriatric ward

## **STEP 2: PREScreenING AND CGA<sup>†</sup>**

- of patients with a positive screening tool
- performed by nurse and geriatrician of the geriatric consultation

## **STEP 3: TARGETED IN-DEPTH EVALUATION**

- performed by all members of the geriatric consultation team
- other disciplines consulted on an "on call" basis

## **STEP 4: FORMULATING ADVICE AND RECOMMENDATIONS**

- based on findings of geriatric consultation team
- detailed electronic report and oral clarification , communication to GP

## **STEP 5: FOLLOW-UP VISIT**

- one-time only
- to check for additional problems

# CGA based care models for hospitalized older persons



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Dept. Geriatric Medicine, UZ Leuven, Belgium  
Dept. CHROMETA, KU Leuven, Belgium

# Comprehensive Geriatric Assessment (CGA)



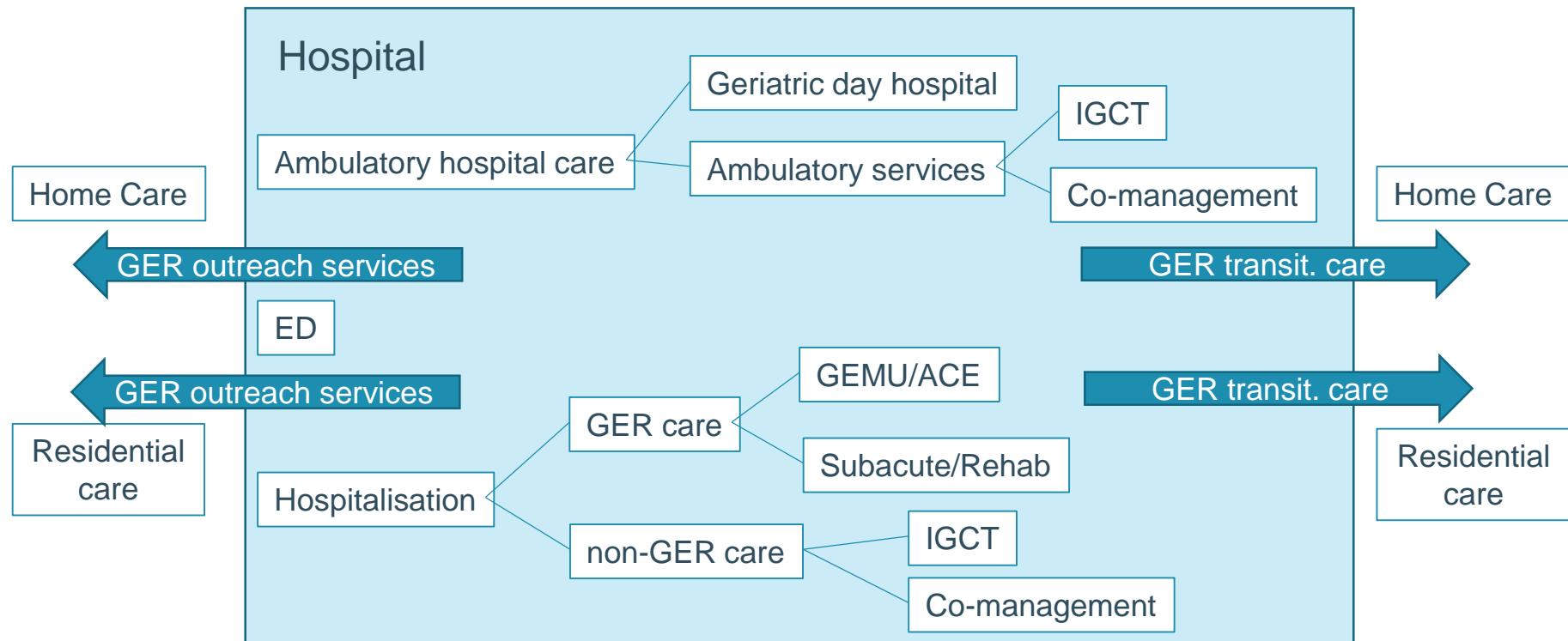
Figure 2: Schematic representation of the CGA process (geriatric care)

Definition (Rubenstein 1991)

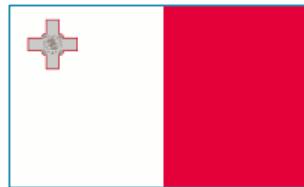
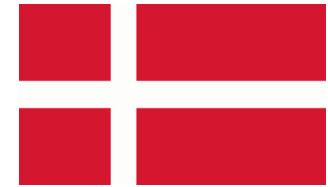
'A **multidimensional interdisciplinary** diagnostic process intended to determine a frail older person's medical, psychosocial and functional capabilities in order to develop an overall plan for treatment and long-term follow-up.'

"one size fits all"  
↓  
individualized  
care

# CGA based care models for older persons



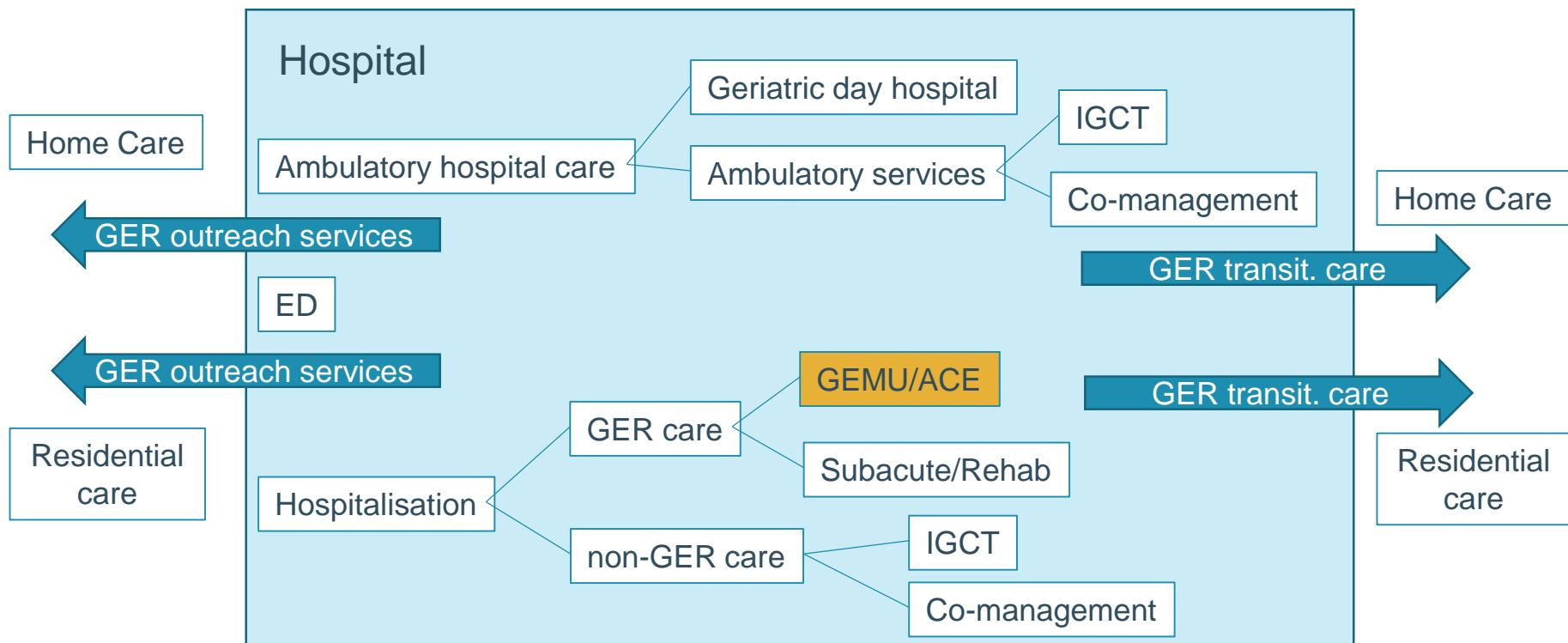
- Geriatric care models in 8 EU countries



	Total N = 178	Belgium N = 69	Denmark N = 22	Estonia N = 13	Greece N = 47	Iceland N = 4	Ireland N = 11	Malta N = 3	Slovenia N = 9
<b>Response rate</b>	50%	72%	100%	72%	27%	67%	50%	75%	96%
Acute geriatric units, n (%)	92 (51.6)	69 (100)	16 (72.7)	0	1 (2.1)	1 (25.0)	4 (36.4)	0	1 (11.1)
Number of beds, median (Q1-Q3)	50 (28-78)	60 (36-86)	20 (26-34)	NA	60	20	33 (16-56)	NA	16
Mean length of stay, median (Q1-Q3)	13 (10-17)	14 (12-17)	7 (5-8)	NA	30	15	13 (10-18)	NA	7
Geriatric rehabilitation unit, n (%)	41 (23)	21 (30.4)	5 (22.7)	2 (15.4)	2 (4.3)	3 (75.0)	7 (63.6)	0	1 (11.1)
Number of beds, median (Q1-Q3)	22 (10.5-30)	24 (20.5-31)	15 (8-20.5)	5 (5-5)	-	17 (4-80)	20 (13-34)	NA	30
Geriatric consultation team, n (%)	97 (54.5)	69 (100)	13 (59.1)	3 (23.1)	2 (4.3)	1 (25.0)	8 (72.7)	1 (33.3)	0
<b>Members</b>									NA
- Geriatrician	95 (97.9)	68 (98.6)	0	2 (66.7)	2 (100.0)	1 (100.0)	8 (100.0)	1 (100)	
- Nurse	85 (87.6)	67 (97.1)	9 (69.2)	3 (100.0)	1 (50.0)	1 (100.0)	4 (50.0)	0	
- Occupational therapist	62 (63.9)	55 (79.7)	4 (30.8)	1 (33.3)	0	0	2 (25.0)	0	
- Speech therapist	50 (51.5)	46 (66.7)	1 (7.7)	2 (66.7)	0	0	1 (12.5)	0	
- Physiotherapist	46 (47.4)	33 (47.8)	8 (61.5)	2 (66.7)	1 (50.0)	0	2 (25.0)	0	
- Dietician	45 (46.4)	41 (59.4)	1 (7.7)	1 (33.3)	1 (50.0)	0	1 (12.5)	0	
- Psychologist	40 (41.2)	39 (56.5)	0	1 (33.3)	0	0	0	0	
- Social worker	36 (37.1)	32 (46.4)	0	3 (100.0)	0	1 (100.0)	0	0	
Geriatric co-management, n (%)	52 (29.2)	28 (40.6)	14 (63.6)	3 (23.1)	2 (4.3)	0	2 (18.2)	3 (100)	0
<b>Members</b>						NA			NA
- Geriatrician	45 (86.5)	27 (96.4)	13 (92.9)	1 (33.3)	0		2 (100.0)	2 (66.7)	
- Internal medicine physician	15 (28.8)	9 (32.1)	3 (21.4)	2 (66.7)	0		0	1 (33.3)	
- Nurse	39 (75)	21 (75.0)	11 (78.6)	3 (100.0)	1 (50.0)		1 (50.0)	2 (66.7)	
- Physiotherapist	32 (61.5)	14 (50.0)	10 (71.4)	2 (66.7)	2 (100.0)		2 (100.0)	2 (66.7)	
- Occupational therapist	31 (59.6)	19 (67.9)	7 (50.0)	2 (66.7)	0		1 (50.0)	2 (66.7)	
- Social worker	22 (42.3)	15 (53.6)	0	3 (100.0)	2 (100.0)		1 (50.0)	1 (33.3)	
- Dietician	15 (28.8)	10 (35.7)	2 (14.3)	1 (33.3)	1 (50.0)		1 (50.0)	3 (100.0)	
- Speech therapist	15 (28.8)	10 (35.7)	1 (7.1)	2 (66.7)	0		1 (50.0)	1 (33.3)	
- Psychologist	13 (25)	9 (32.1)	0	1 (33.3)	1 (50.0)		1 (50.0)	1 (33.3)	
Emergency department, n (%)	173 (97.2)	68 (98.6)	22 (100)	13 (100)	45 (95.7)	4 (100)	10 (90.9)	3 (100)	8 (88.9)
Geriatrician at the ED	100 (57.8)	48 (70.6)	17 (77.3)	1 (7.7)	4 (8.5)	3 (75.0)	8 (80.0)	1 (33.3)	0
Boxes for older people at ED	9 (5.2)	4 (5.9)	1 (4.5)	0	3 (6.4)	0	1 (10.0)	0	0
Number of boxes, median (Q1-Q3)	2 (1-4)	2.5 (1.25-4.5)	5 (5-5)	NA	1 (1- ...)	0	1 (1-1)	NA	NA
Systematic screening ("yes")	62 (35.8)	45 (66.2)	5 (22.7)	0	5 (10.6)	1 (25.0)	6 (60.0)	0	0
Ambulatory services, n (%)									
Geriatric day clinic	62 (34.8)	53 (76.8)	5 (22.7)	0	0	1 (25.0)	3 (27.3)	0	0
Memory clinic	100 (56.2)	62 (89.9)	12 (54.5)	1 (7.7)	14 (29.8)	2 (50.0)	8 (72.7)	0	1 (11.1)
Falls prevention clinic	86 (48.3)	55 (79.7)	16 (72.7)	4 (30.8)	1 (2.1)	1 (25.0)	7 (63.6)	1 (33.3)	1 (11.1)
Transitional care programs, n (%)	107 (60.1)	52 (75.4)	15 (68.2)	10 (76.9)	16 (34.0)	3 (75.0)	6 (54.5)	2 (66.7)	3 (33.3)

**Legend:** Percentage of hospitals that have implemented the care model = **0 – 24%, 25 – 49%, ≥50%**

# CGA based care models for older persons

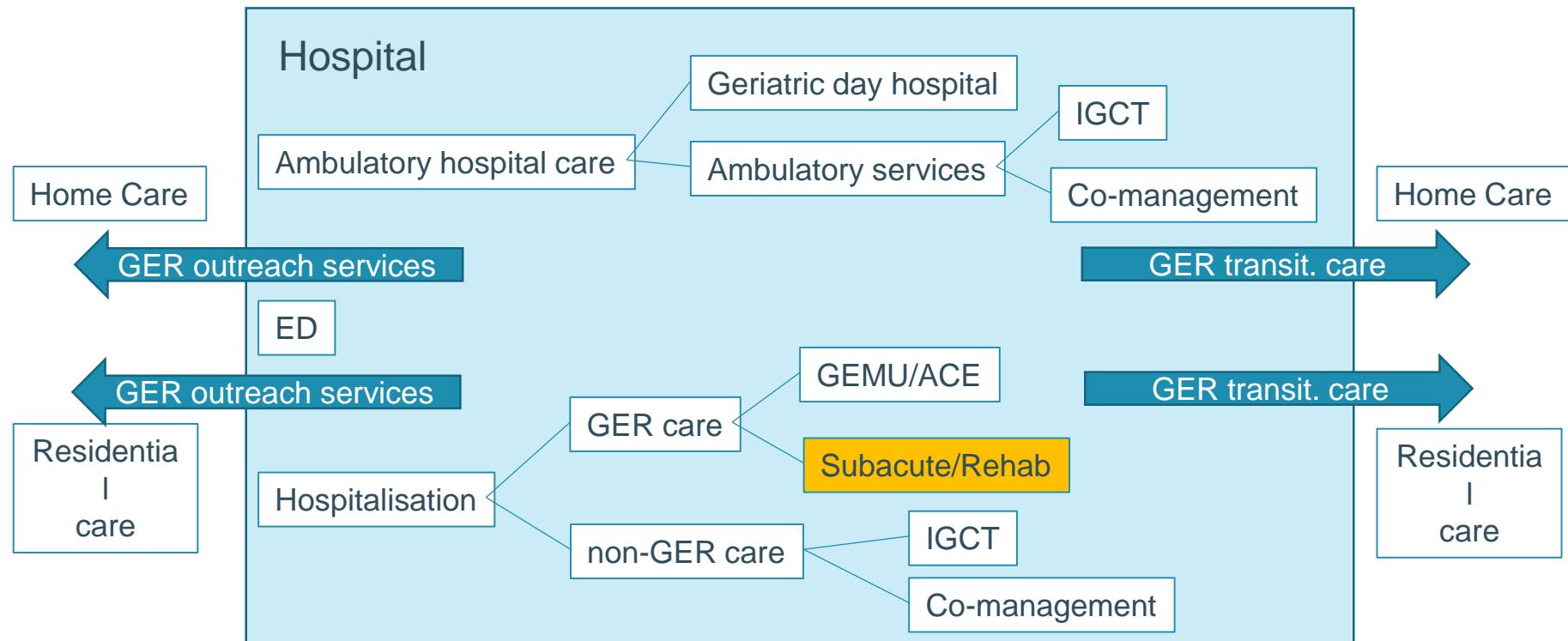


# Cochrane Review CGA vs. CC (medical pts)

Acute medical ward or inpatient rehabilitation (CGA = ward based or mobile team)

Outcome	N studies	MD (continuous data) RR (categorical data)	95% CI
Living & at home (discharge)	11	RR = 1.05	0.01 – 1.10
Living & at home (3-12m)	16	RR = 1.06	1.01 – 1.10
Nursing home admission (discharge)	12	RR = 0.89	0.81 – 0.98
Nursing home admission (3-12m)	14	RR = 0.80	0.72 – 0.89
Dependence (in ADL or decline ADL)	14	RR = 0.97	0.89 – 1.04
Activities of daily living	7	MD = 0.04	-0.06 – 0.15
Mortality (discharge)	11	RR = 1.04	0.82 – 1.32
Mortality (3-12m)	21	RR = 1.0	0.93 – 1.07
Readmission	13	RR = 1.02	0.94 – 1.11
Costs	17	MD = 234 £	-144 – 605
LOS / Cognitive function	17 / 5	MD (heterogeneity)	(no meta-analysis)

# CGA based care models for older persons



# Interventions to improve the outcomes of frail people having surgery

- Interventions were applied pre- and postoperatively
  - exercise therapy ( $n = 4$ ),
  - multicomponent geriatric care protocols ( $n = 5$ ),
  - blood transfusion triggers ( $n = 1$ );
- **Exercise therapy**, applied pre-, or post-operatively
  - **improvements in functional outcomes**
  - **improved quality of life.**
- **Multicomponent protocols**
  - poor compliance
  - difficulties in implementation.
- **Transfusion** triggers
  - **no impact** on mortality or other outcomes

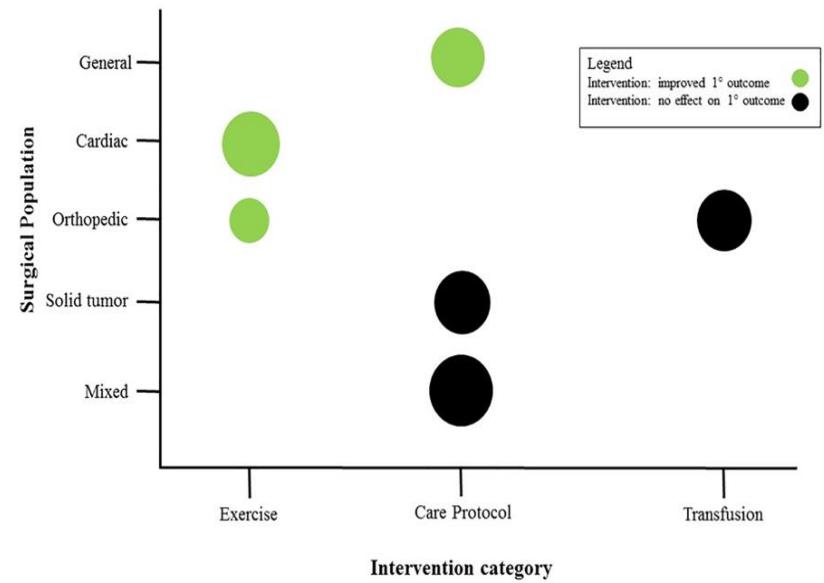


Fig 2. Summary of study outcomes by intervention type and surgical population. The size of each circle is proportional to the number of participants in each grouping.

# Effects of Geriatric Team Rehabilitation After Hip Fracture

- Interdisciplinary geriatric team rehabilitation
  - increased **ADL/physical function** (SMD, 0.32; 95 % CI, 0.17-0.47)
  - increased **mobility** (SMD, 0.32; 95% CI, 0.12-0.52) compared with conventional care.
- no increase the chance of **living in one's own home** after discharge (RR, 1.07; 95% CI, 0.99-1.16) or
- no increase in **survival** (RR, 1.02; 95% CI, 0.99-1.06) compared with conventional care.
- All results were rated as GRADE 3.

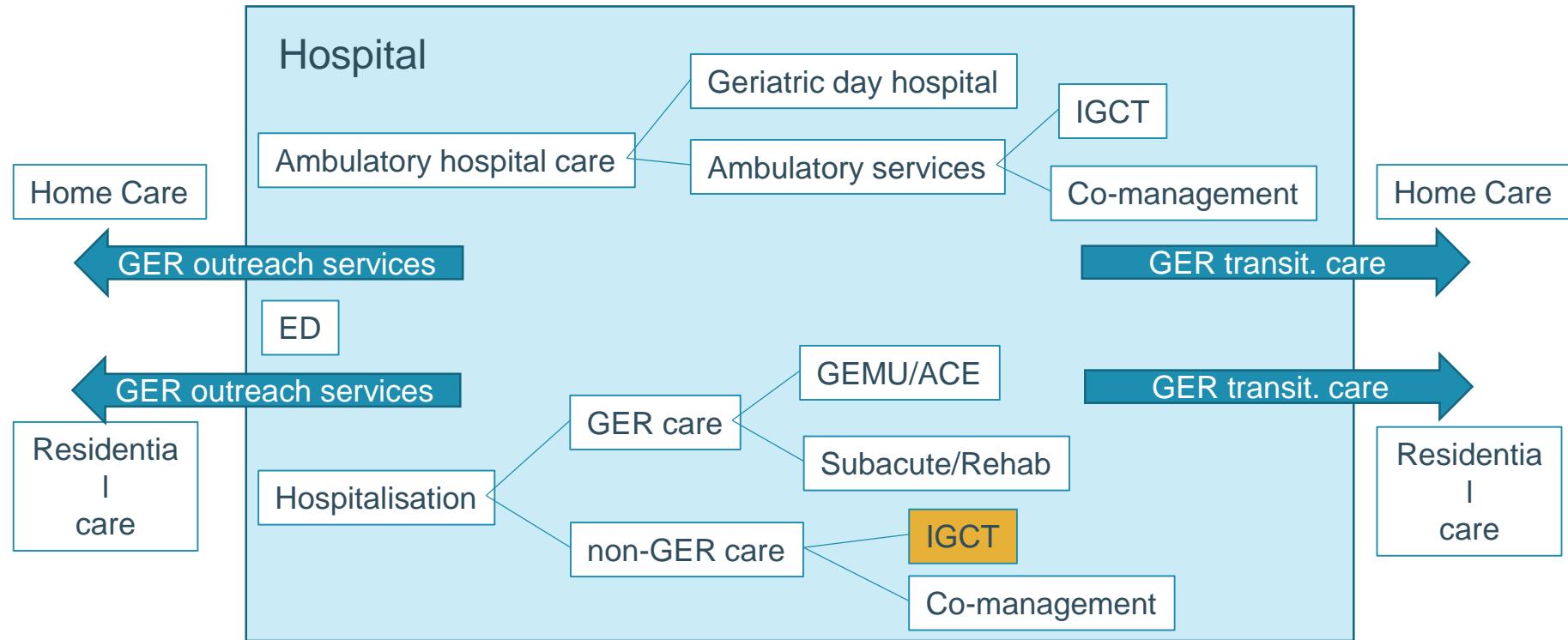
# Non-pharmacological interventions for the improvement of post-stroke activities of daily living and disability amongst older stroke survivors

- Software Engine for the Assessment and Optimisation of Drug and Non-Drug Therapies in Older Persons (**SENATOR**) [<http://www.senatorproject.eu>].
- Optimal Evidence-Based Non-Drug Therapies in Older Persons (**ONTOP**) project
- 72 primary articles spanning 14 types of non-pharmacological intervention
- **Physiotherapy and occupational therapy techniques** improved **ADL**.
- **No evidence** was found to support use of any non-pharmacological approach to benefit **disability**.

# Effects of Postacute Multidisciplinary Rehabilitation Including Exercise in **Out-of-Hospital Settings** in the Aged

- 6MWD,
  - walked an average of **23 m** more (95% CI: -1.34 to 48.32; I<sup>2</sup>: 51%).
- Rehabilitation did not lower
  - the 3-month risk of unplanned **hospital readmission** (risk ratio: 0.93; 95% CI: 0.73-1.19; I<sup>2</sup>: 34%).
- The risk of bias was present, mainly due to the non-blinded outcome assessment in 3 studies, and 7 studies scored this unclearly.

# CGA based care models for older persons



# Structure and processes of interdisciplinary geriatric consultation teams in acute care hospitals: A scoping review.

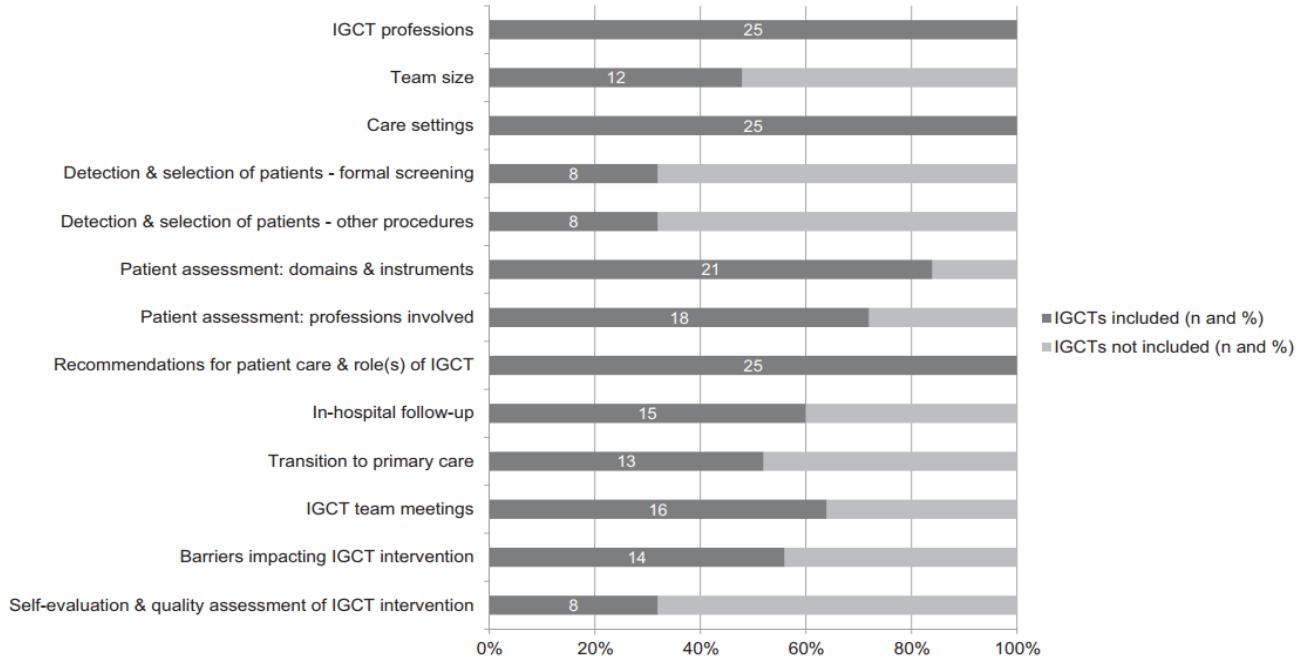


Fig. 2. Number of teams reporting on the different structure and process domains of IGCT care.

# IGCT meta-analysis

- 12 prospective cohort studies
- N = 4546
- IGCT
  - Mortality (6m): -34 % (-15 to -48 %)
  - Mortality (8m): -48 % (-15 to -69 %)
  - Functional status: NS
  - Readmission: NS
  - LOS: NS
- Heterogeneity
- Non-compliance

# IGCT UZ Leuven RCT

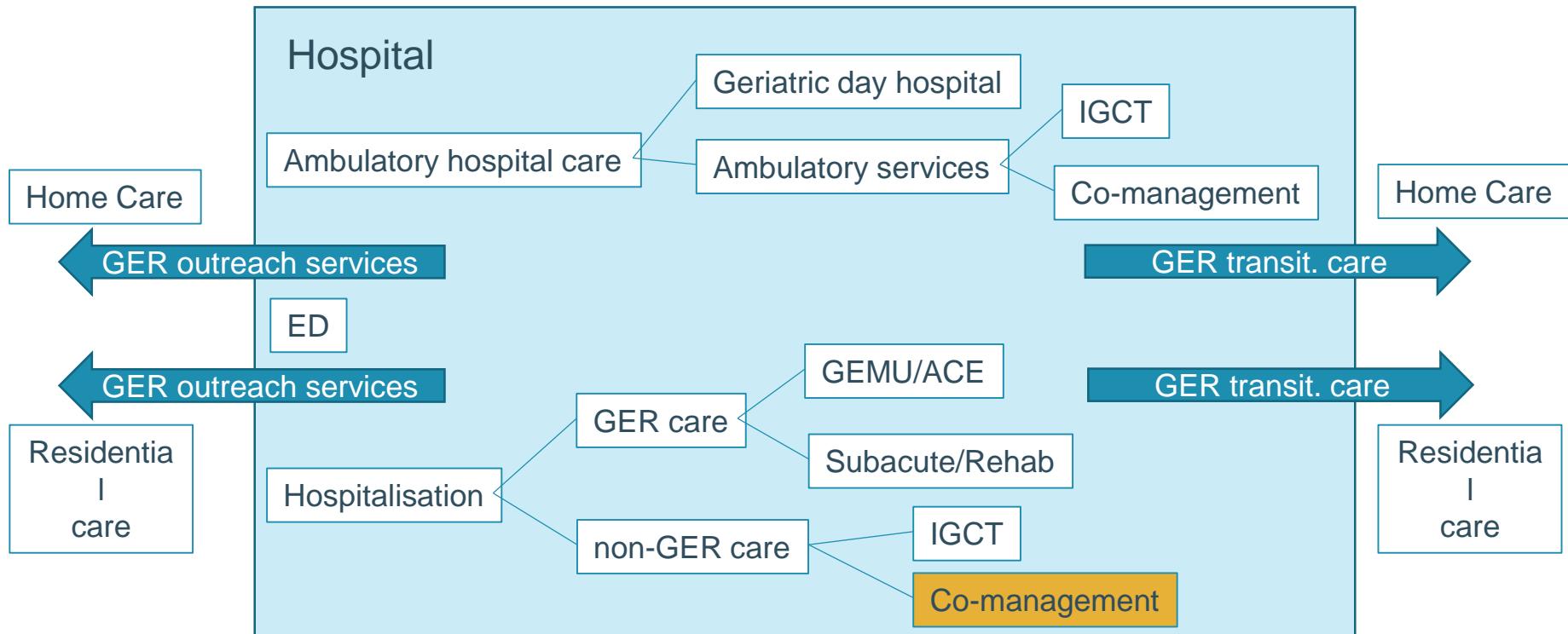
- RCT
- N = 171 ≥ 65 y with traumatic hip fracture
- Intervention group
  - More pain therapy
  - More occupational therapy
- Compliance
  - 30 % non- and 10 % partial adherence to advices
- GST effect on outcomes:
  - Mortality, Function, LOS, Readmission, NH admission: NS

# IGCT RCT UZ Leuven

- RCT
- N = 171 ≥ 65 y with traumatic hip fracture
- GST effect on outcome
  - Delirium controls (CAM)
    - OR: 1.92 (95% CI 1.04 – 3.54)
  - Cognitive decline controls (MMSE)
    - OR: 2.16 (95% CI (1.1 to 4.25)

Deschodt M, JAGS 2012; 60:733-739

# CGA based care models for older persons



# CGA and postop complications GI surgery

- Prediction of **postoperative complications**:
  - **Charlson Comorbidity Index [CCI]  $\geq 3$** ; OR=1.31, 95% CI [1.06, 1.63],  $P=0.01$ ,
  - **Polypharmacy ( $\geq 5$  drugs/day)**; OR=1.30, 95% CI [1.04, 1.61],  $P=0.02$
  - **Activities of daily living (ADL) dependency** (OR=1.69, 95% CI [1.20, 2.38],  $P=0.003$ )

Xue DD, Clin Interv Aging.

# CGA in surgical oncology

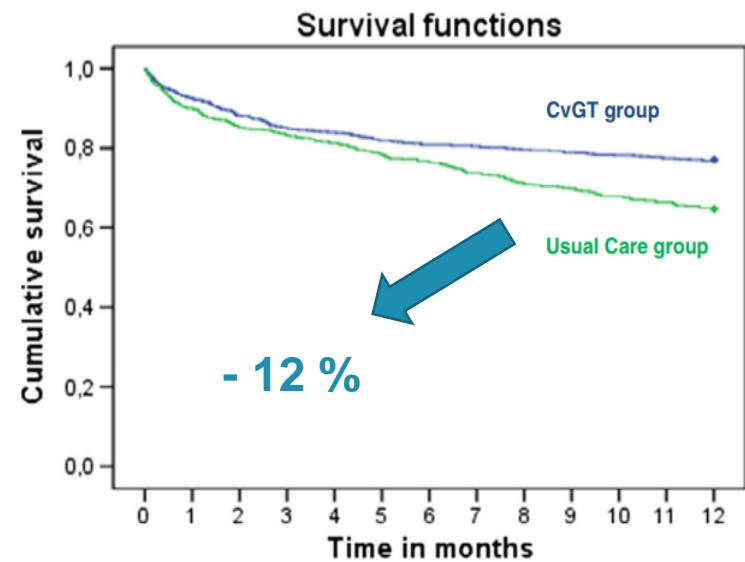
**Table 3 – Geriatric assessment components and association with surgical outcomes.**

Outcomes	POC		Postoperative mortality		Discharge to a nonhome facility		Other outcomes
	Rates	Predictors	Rates	Predictors	Rates	Predictors	
Preoperative assessment of cancer in the elderly participants et al. [9]	37.8% ≥1 overall 30-d complication	IADL (or 1.4; 95% CI 1.0–2.0) moderate–severe brief fatigue inventory (OR = 1.5; 95% CI 1.2–2.1)	3.5% overall 30-d mortality	None			Longer LOS: decreased ADL 2.0 (1.4–2.9)
Fukuse et al. [1]	16% ( <i>n</i> = 75) ≥1 major 30-d complication 16.7%	American Society of Anesthesiologists Score (OR = 2.0; 95% CI: 1.1–3.5) Decreased mini-mental state examination ( <i>P</i> = 0.03); decreased ADLs ( <i>P</i> = 0.04) no ORs reported					
Kothari et al. [3]	13% major 30-d complication	Dependency with IADL “shopping” ( <i>P</i> = 0.01); geriatric depression scale “have you dropped activities and interests?” ( <i>P</i> = 0.04)	1.6% 30-d mortality	None	10% discharge to nonhome location	Dependency in IADLs ( <i>P</i> = 0.003); geriatric depression score “do you feel worthless the way you are now?”	Longer LOS: nutrition NSI NHC: illness that made patients change the way they ate ( <i>P</i> = 0.04); unintentional ≥10 pound weight loss in 6 mo ( <i>P</i> = 0.01); not always able to feed or shop for oneself ( <i>P</i> = 0.03)
Kristjansson et al. [5] Tan et al. [10]	60% overall complications (78% severe) Surgical complications <i>n</i> = 16 (19%) Medical complications; <i>n</i> = 16 (19%) Major complications ( <i>n</i> = 22); 27% CI: 1.4–11.6	Worse frailty score (OR = 3.7; 95% CI: 1.7–7.9) Worse frailty score (OR = 3.5; 95% CI: 1.1–10.8) Worse frailty score (OR = 3.5; 95% CI: 1.1–10.8) Worse frailty score (OR = 4.1; 95% CI: 1.4–11.6)	2% 30-d mortality	None			Readmissions higher for worse frailty score
Badgwell et al. [11]	90-d overall complications (48%) <i>n</i> = 53  90-d major complications (21%)	No predictors  No predictors	90-d mortality 3% ( <i>n</i> = 3)	None	Discharge status to SNF 10%	ECOG (<2): OR 4.5 (1.03–19.7); weight loss ≥10%; OR 6.5 (1.4–29.8); ASA>2: OR 5.1 (1.2–22.8)	30-d readmissions 24% (no predictors); increased LOS: weight loss ≥10% (OR = 4.0; 95% CI 1.1–14.4); polypharmacy (OR = 2.4; 95% CI 1.1–5.5)

CI = confidence interval; ECOG = Eastern Cooperative Oncology Group; NSI NHC = Nutritional Screening Initiative Nutritional Health Checklist; OR = odds ratios; SNF = Skilled Nursing Facility.

# 1-year mortality in elderly patients with a hip fracture following integrated orthogeriatric treatment

	Univariate analysis			Multivariate analysis		
	OR	95 % CI	p value	OR	95 % CI	p value
Male gender	1.48	1.05–2.10	0.026	1.68	1.13–2.45	0.011
Age in years	1.07	1.04–1.09	<0.001	1.06	1.02–1.09	0.001
Fracture type	1.04	0.73–1.41	0.926			
VMS frailty delirium <sup>a</sup>	2.16	1.55–3.02	<0.001			
VMS frailty prior fall <sup>b</sup>	0.60	0.15–2.42	0.474			
VMS frailty malnutrition <sup>c</sup>	2.56	1.77–3.70	<0.001	2.01	1.34–3.02	<0.001
VMS frailty physical limitations <sup>d</sup>	4.61	2.83–7.53	<0.001	2.35	1.32–4.20	0.004
Dementia	2.22	1.55–3.19	<0.001			
ASA 3 <sup>e</sup>	4.19	2.26–7.77	<0.001	2.43	1.25–4.74	0.009
ASA 4–5 <sup>e</sup>	16.23	8.12–32.42	<0.001	7.05	3.20–15.52	<0.001
CCI 1–2 <sup>f</sup>	2.65	1.59–4.40	<0.001	1.46	0.83–2.57	0.191
CCI 3–4 <sup>f</sup>	3.73	2.16–6.47	<0.001	1.59	0.85–2.96	0.149
CCI 5 <sup>f</sup> or more	7.74	3.95–15.47	<0.001	2.71	1.23–5.93	0.013
Barthel Index preoperative	0.89	0.86–0.92	<0.001	0.96	0.92–1.01	0.091
Parker Mobility Score preoperative	0.82	0.77–0.87	<0.001			
Residential home <sup>g</sup>	2.19	1.40–3.44	0.001			
Skilled nursing home <sup>g</sup>	2.77	1.85–4.16	<0.001			



**Fig. 2** Kaplan-Meier survival curve over 1 year following hip fracture treatment

# Cochrane Review CGA vs. CC (surgical pts)

7 studies in hipfracture - 1 study in onco-surgery\* patients

Outcome	N studies	MD (continuous data) RR (categorical data)	95% CI
Major complication	1	RR = 0.74	0.60 – 0.92
	1*	RR = 1.16	0.80 – 1.67
Delirium	3*	RR = 0.75	0.60 – 0.94
Mortality	5	RR = 0.85	0.68 – 1.05
LOS	5	MD (heterogeneity)	(no meta-analysis)
Readmission	3*	RR = 1.00	0.76 – 1.32
Discharge to increased level of care	5	RR = 0.71	0.55 – 0.92
Total cost at 1y	1	MD = -5154 €	-13.288 – 2980

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

- Twelve studies and 3,590 patients were included from six randomised and six quasi-experimental studies.
- Geriatric co-management
  - **improved functional status**
  - **reduced** the number of **complications** in three of the four studies  
(high risk of bias and outcomes heterogeneous and could not be pooled).
  - **reduced the length of stay** (pooled mean difference, -1.88 days [95% CI, -2.44 to -1.33]; 11 studies)
  - may **reduce in-hospital mortality** (pooled odds ratio, 0.72 [95% CI, 0.50–1.03]; 7 studies).
  - no effect
    - number of patients discharged home (5 studies),
    - post-discharge mortality (3 studies)
    - readmission rate (4 studies).

# Comprehensive Geriatric Assessment for Prevention of Delirium After Hip Fracture:

- Reduction in delirium overall
  - **RR = 0.81**, (CI = 0.69-0.94).
  - Post hoc subgroup analysis
    - **team-based intervention group** (RR = 0.77, 95% CI = 0.61-0.98)
    - not the ward-based group.
- No significant effect was observed on any secondary outcome.

# Economic evaluations of comprehensive geriatric assessment in surgical patients

- **loss of function**
  - odds ratio 0.92 ([CI]: 0.88-0.97).
- **length of stay**
  - mean difference: -1.17(CI: -1.63 to -0.71)
- **mortality**
  - risk ratio: 0.78 (95% CI: 0.67-0.90).
- **All studies decreased cost and improved health outcomes in a cost-effective manner.**

# Geriatricians in perioperative medicine: developing subspecialty training

**Table 1** British Geriatric Society's curriculum for Perioperative Medicine for Older People

## Perioperative Medicine for Older People

To know how to risk assess, optimise and manage the older elective and emergency surgical patient throughout the surgical pathway

### Knowledge

Demographics and political landscape relevant to the older surgical patient

National reports and policy drivers relevant to the older surgical patient

Models and pathways of care for older surgical patients

Risk assessment of perioperative morbidity and mortality (including use of tools e.g. PPOSSUM and investigations e.g. Cardiopulmonary exercise testing)

Modification of risk including the use of organ specific national and international guidelines (e.g. European Society Cardiology)

Use of inter-disciplinary and cross-speciality interventions to improve postoperative outcome (e.g. therapy delivered pre-habilitation)

### Skills

Clinical assessment with appropriate use of investigations and tools to preoperatively risk assess for perioperative morbidity and mortality

Communication of risk with health professionals and patients/relatives

Timely medical optimisation of comorbidity and geriatric syndromes

Appropriate allocation of postoperative resources (e.g. use of level 2 and 3 care)

Decision making regards rehabilitation, and timely and effective discharge pertinent to the surgical patient

Liaison with patients, anaesthetists and surgeons to ensure shared decision making

Application of ethical and biomedical approaches to ensure appropriate ceilings for escalation of care

### Behaviours

Objectively assess the risk-benefit ratio of surgery for older patients without value-laden judgement

Develop confidence in the added value of the geriatrician's role in shared decision making

Appreciate the importance of collaboration between geriatricians, anaesthetists and surgeons in promoting high quality care

### Specific learning methods

Attend clinics where comprehensive geriatric assessment methodology is used to improve outcomes

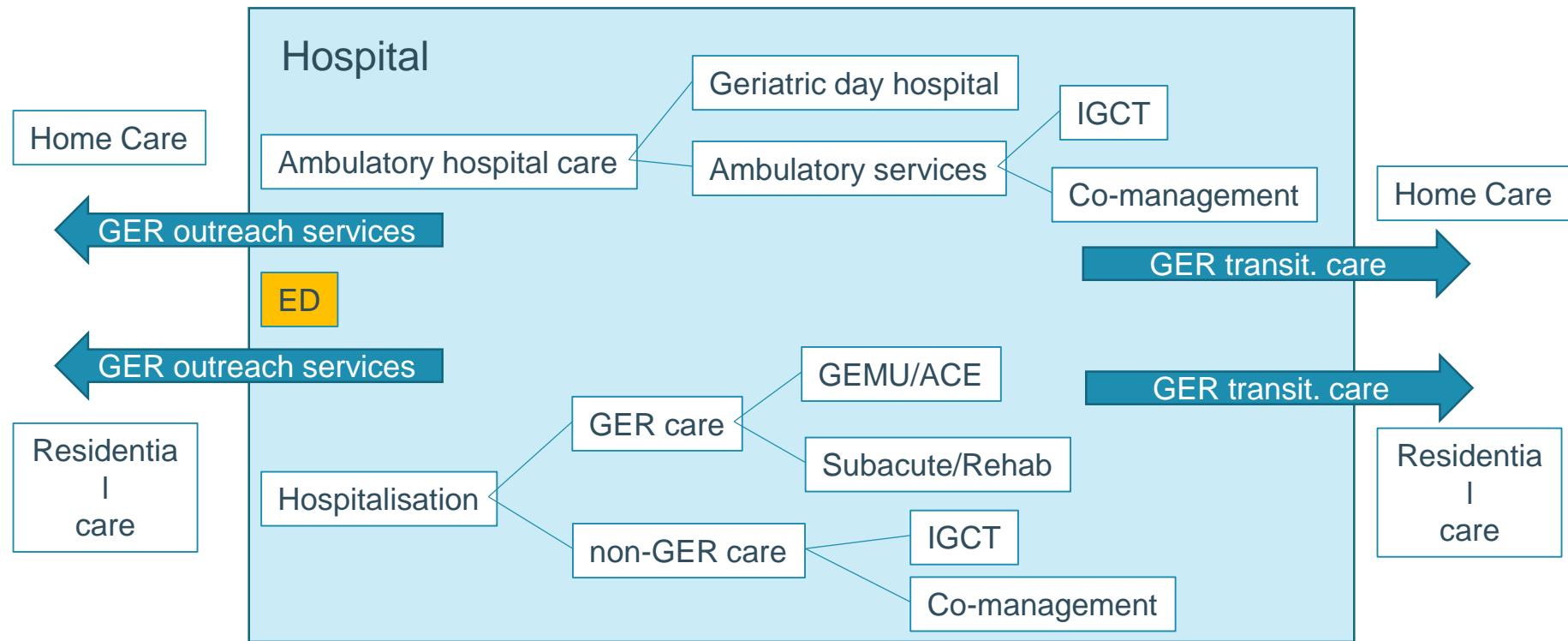
Participate in routine nurse led preassessment and high risk anaesthetic led preassessment of older surgical patients

Liaison work on surgical wards

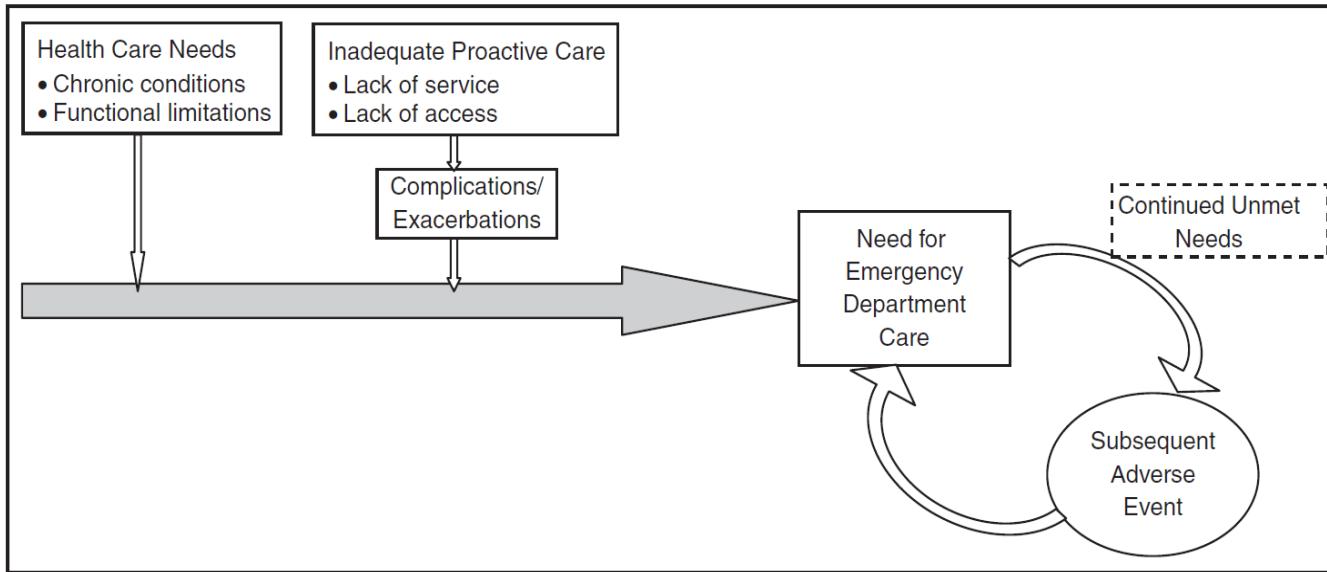
Attend surgical ward multidisciplinary team meetings

Attend training days and conferences relevant to the older surgical patient (e.g. POPS training day, AAGBI training day, Age Anaesthesia Association meetings)

# CGA based care models for older persons



# Elderly on the ED



**Figure 1.** Conceptual model illustrating factors that influence emergency department use by older adults

Source: Adapted from Andersen (1995) and McCusker et al. (2003).



# Geriatric ED care models

Geriatic screening



CGA based care models



Geriatic ED



# Screening of the frail patient in the emergency department

- Clinical Frailty Scale, Deficit Accumulation Index, Identification of Seniors At Risk and The Study of Osteoporotic Fracture frailty index
- **Frailty successfully predicts**
  - increased risk of hospitalization,
  - nursing home admission,
  - mortality and
  - prolonged length of stay after an initial emergency department visit.
- **Frailty does not predict**
  - increased risk of 30 day emergency department revisit.

# Frailty identification in the ED

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## Key points

- Risk stratification is a useful first step in identifying a cohort of older people accessing urgent care settings at especial risk of harm.
  - Several risk-stratification tools exist, but little is known about their acceptability in practice (acceptability, completion rates).
  - Although most commonly used tools are relatively quick to use (less than 10 minutes), little over 50% of potentially eligible people are screened using existing tools.
-

# Can consultant geriatrician led CGA in the ED reduce hospital admission rates?

**Table 3.** The results of the included studies

Study	<i>n</i>	Change in same-day admissions rate (before intervention, during intervention)	Readmissions rate	Length of stay
Ellis <i>et al.</i> [15]	749	15.7% (98.6%, 82.9%) <sup>a</sup> , $P < 0.0005$	No significant effect ( $P = 0.82$ )	No significant effect ( $P = 0.78$ )
Arendts <i>et al.</i> [16]	5,265	2.6% (74.4%, 72%), $P = 0.046$	Not reported	Not reported
Conroy <i>et al.</i> [17]	15,930	8.4% (69.6%, 61.2%), $P < 0.001$	(expressed as risk ratios) 7 days: 0.71 (0.42–1.1); 30 days: 0.74 (0.55– 1.00); 90 days: 0.77 (0.63–0.93)	(Expressed as mean days) Before: 8.9 Intervention: 11.1
Wright <i>et al.</i> [19]	6406	19.7% (87.7%, 68%), $P < 0.001$	Not reported	Fall in median stay of 2 days Reduction in mean stay of 18.2% ( $P < 0.001$ )
Sophia and Bashir [18]	84	9% (55%, 46%)	Not reported	Fall in mean stay from 12 to 3 days

<sup>a</sup>Ellis *et al.* measured their results at a different point in the care pathway to the other studies, explaining the high 'before intervention' admission rate and rendering direct comparison of their results inexact. The rate corresponds to patients transferred to a subunit within the ED rather than the overall ED population.

# The impact of geriatric focused nurse assessment and intervention in the ED

- No impact on
  - hospitalization,
  - readmissions,
  - LOHS and
  - ED revisits.
- Risk screening and comprehensive **geriatric assessment extending into primary care** may reduce readmission rates but not affect hospitalization.
- An **increase in ED visits** in the intervention group at 30 days post-intervention was noted.

# UNPLANNED READMISSION PREVENTION BY GERIATRIC EMERGENCY NETWORK FOR TRANSITIONAL CARE (URGENT)

**Screening:** RAI ED screener.

IGCT nurse in the ED

**Primary outcome:** **ED readmission ↓: NS**

- Low acceptance rate  
of primary care case management

**Secondary outcome:** **ED LOS**

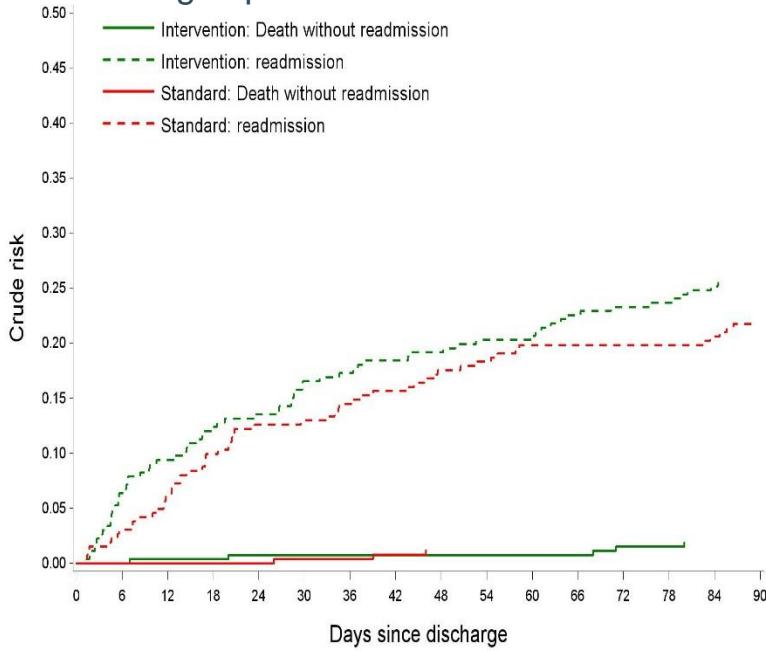
- **All patients:** - 6 h. (19 > 12 h): **p= 0,0003**
- **Hospitalized:** - 6 h. (20 > 14 h): **p= 0,0002**
- **Discharged:** - 5 h. (15 > 10 h): **NS**

**CGA:**

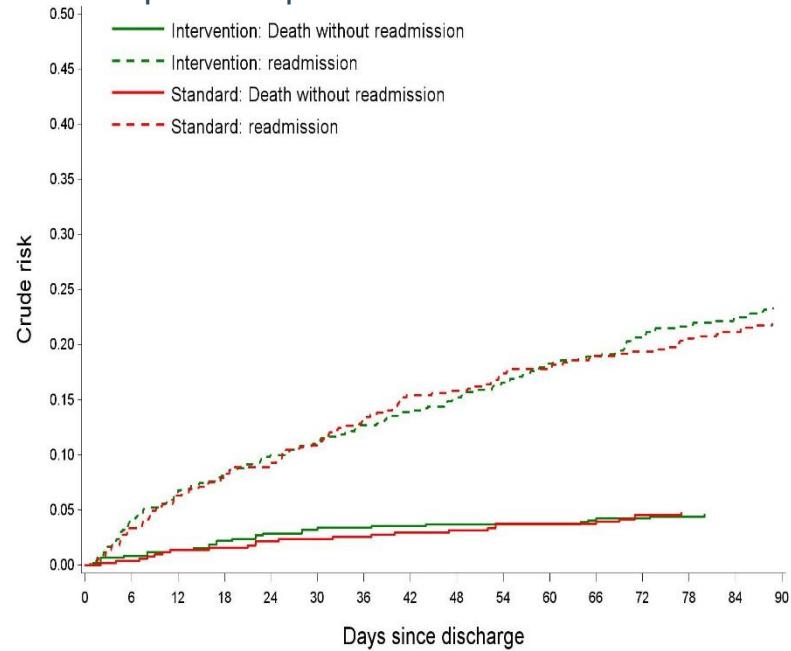
Geriatric domain	Variables within the comprehensive geriatric assessment
Functional	❖ Activities of daily living (Katz index [35]) ❖ Fall History [34] ❖ Taking stairs ❖ Pain [34] ❖ Nutritional status: Appetite and weight loss [34] ❖ Alcohol use and smoking ❖ Medication intake ❖ Dyspnea [34]
Cognitive	❖ Screening for cognition: three-item word memory and clock drawing (mini-cog [36]) ❖ Orientation in time and place ❖ Attention ❖ Depressive symptoms (3-item screening tool for depression [38]) ❖ Screening for delirium (Confusion Assessment Method [37])
Social	❖ Age ❖ Gender ❖ Living situation (alone, together, other) [34] ❖ Formal care at home (e.g. nurse, meals on wheels, cleaning help, physiotherapist) ❖ Informal care at home (e.g. help from family, friends) ❖ Caregiver burden [34]
Medical	❖ Triage priority level (Emergency Severity Index [25]) ❖ Reason for admission ❖ Treating discipline on the ED ❖ Diagnosis ❖ Polypharmacy ❖ ED and hospital use in the last months

# UNPLANNED READMISSION PREVENTION BY GERIATRIC EMERGENCY NETWORK FOR TRANSITIONAL CARE (URGENT)

Time to unplanned ED readmission  
discharged patients



Time to unplanned ED readmission  
hospitalized patients



# Geriatric ED

- **Characteristics:**

- Separate beds for geriatric patients (4-12)
- Strict criteria → screening
- CGA
- Adapted infrastructure
- Geriatrician available
- Interdisciplinary team and collaboration
- Focus on discharge planning, referral and continuity of care

- **Specific characteristics**

- Caregiver involvement (Salvi et al. 2008 & Ellis et al. 2012)
- Adapted trajectories ex radiology, lab, ‘frailty pathway’ (Salvi et al. 2008; Conroy et al 2013)



# Geriatric ED

- Outcomes:

Outcome	Salvi 2008		Ellis 2012		Parteja-Sierra 2013	Conroy 2013	
Readmission	3m&6m	NS	7d&1m	NS	/	7d&1m 3m	NS <b>S</b>
Hospitalisation		NS		<b>S</b>		<b>S</b>	<b>S</b>
LOHS		NS		NS		<b>S</b>	NS
Mortality	6m	NS	12m	NS	/	/	

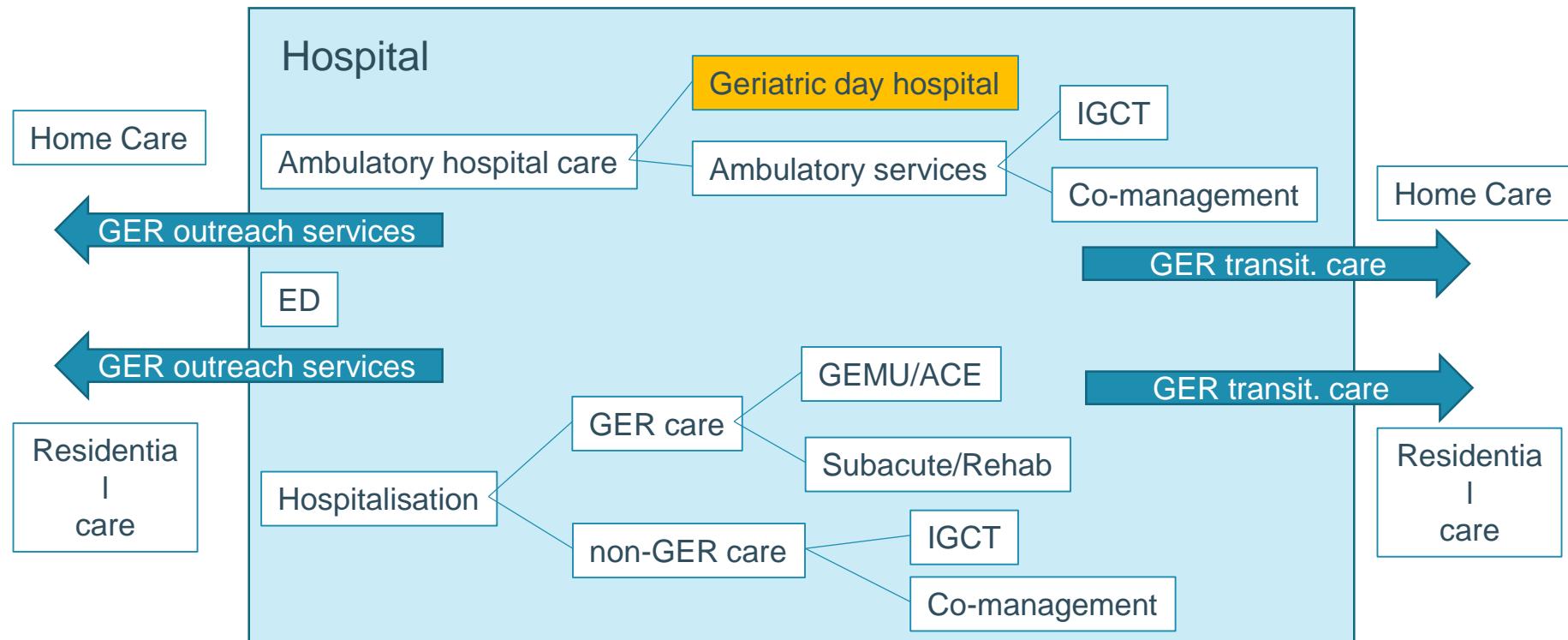


# ED pathways

## Key aspects of interventions that warrant further research

- Comprehensive assessment and screening of elderly patients attending the ED may be effective in to preventing hospital admission and ED attendance.
- Follow up of patients after discharge (from ED or acute setting) may reduce ED attendance and readmission rates.
- Senior staff who are appropriately trained to manage and treat or refer complex patients appears to aid in preventing hospital admission.
- Interventions that are trialled away from the time pressured environment of the ED may be effective.
- Providing 'holding' areas for patients discharged directly from the ED to allow staff sufficient time to plan the discharge care of patients may reduce the proportion of unscheduled ED return visits.
- Further research regarding patient centred education within the ED for specific chronic diseases needs to be conducted.
- There is a need for high quality prospective studies in the UK setting.

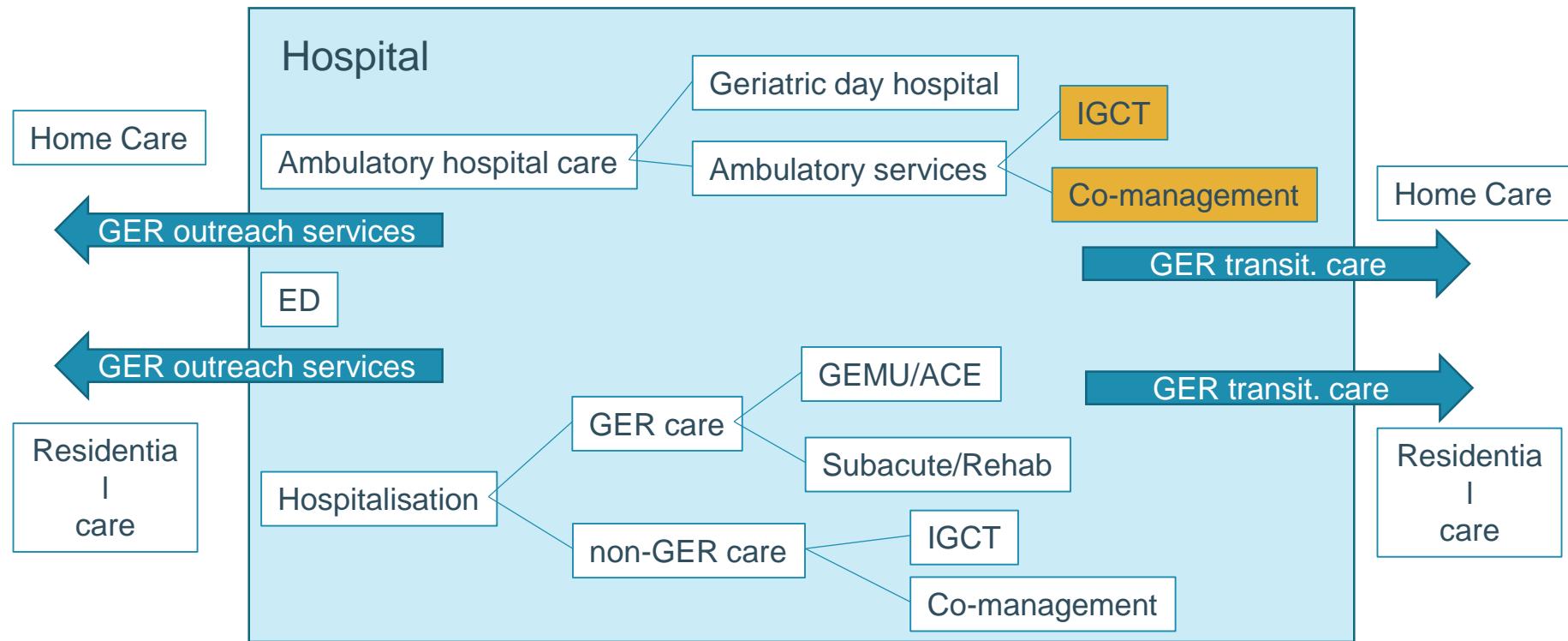
# CGA based care models for older persons



	Death	Death or ADL↓	Death or poor outcome*	Death or institutionalisation	ADL↓	Institutionalisation
Other treatment	NS	NS	NS	NS	NS	NS
Comprehensive care	NS	NS	NS	NS	NS	NS
Domiciliary care	NS	NS	NS	NS	NS	NS
<b>No comprehensive care</b>	NS	NS	<b>-28 %</b>	<b>-37 %</b>	<b>-49 %</b>	NS

\* institutional care, dependency, deterioration in physical function

# CGA based care models for older persons



# International Society of Geriatric Oncology Consensus on Geriatric Assessment in Older Patients With Cancer

**Table A2.** Reasons to Perform GA Based on Statements in Former Publications

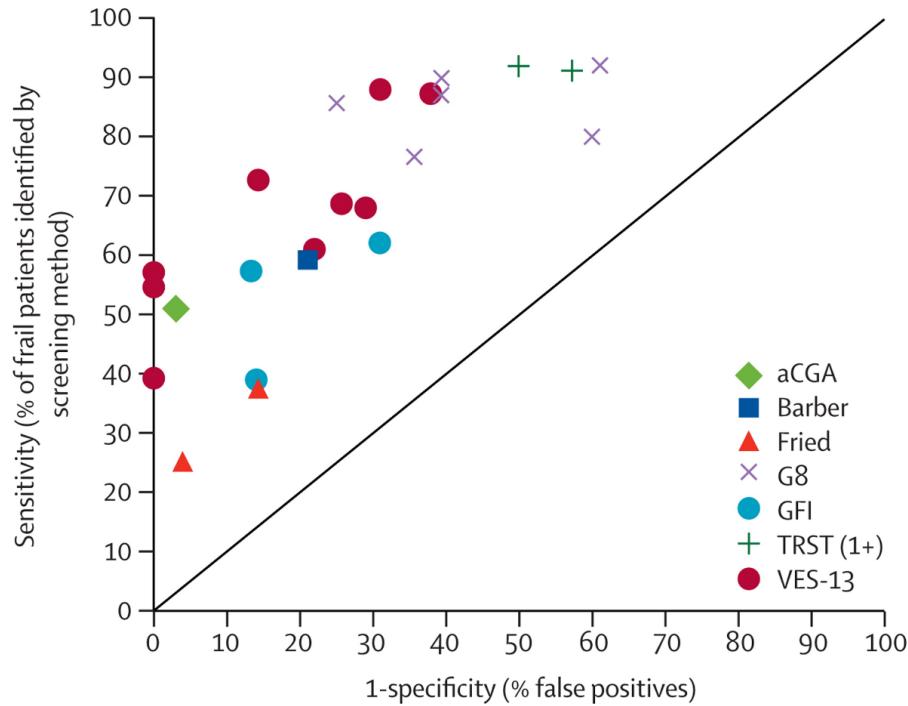
## Literature Search Results

GA can reveal/detect previously unknown and potentially reversible geriatric problems not found by routine oncology care <sup>15,22,23,25,28,32-34,44</sup>
GA can predict toxicity/adverse effects from cancer treatment or decrease in QOL, enabling more targeted use of preventive measures <sup>15,18-21,23,25,32,41</sup>
GA has important prognostic information that can be helpful in estimating life expectancy, which is of paramount importance when making treatment decisions <sup>15,18,19,22-24,26,28-34,44,76</sup>
GA can influence/improve treatment decisions <sup>15,16,21,23,25,27,32</sup>
GA allows targeted interventions, which can improve QOL and compliance with therapy <sup>15,23,22,32</sup>
GA is a systematic procedure to appraise objective health, including multimorbidity and functional status, which interfere with cancer prognosis and treatment choices in older patients <sup>15,21,20</sup>

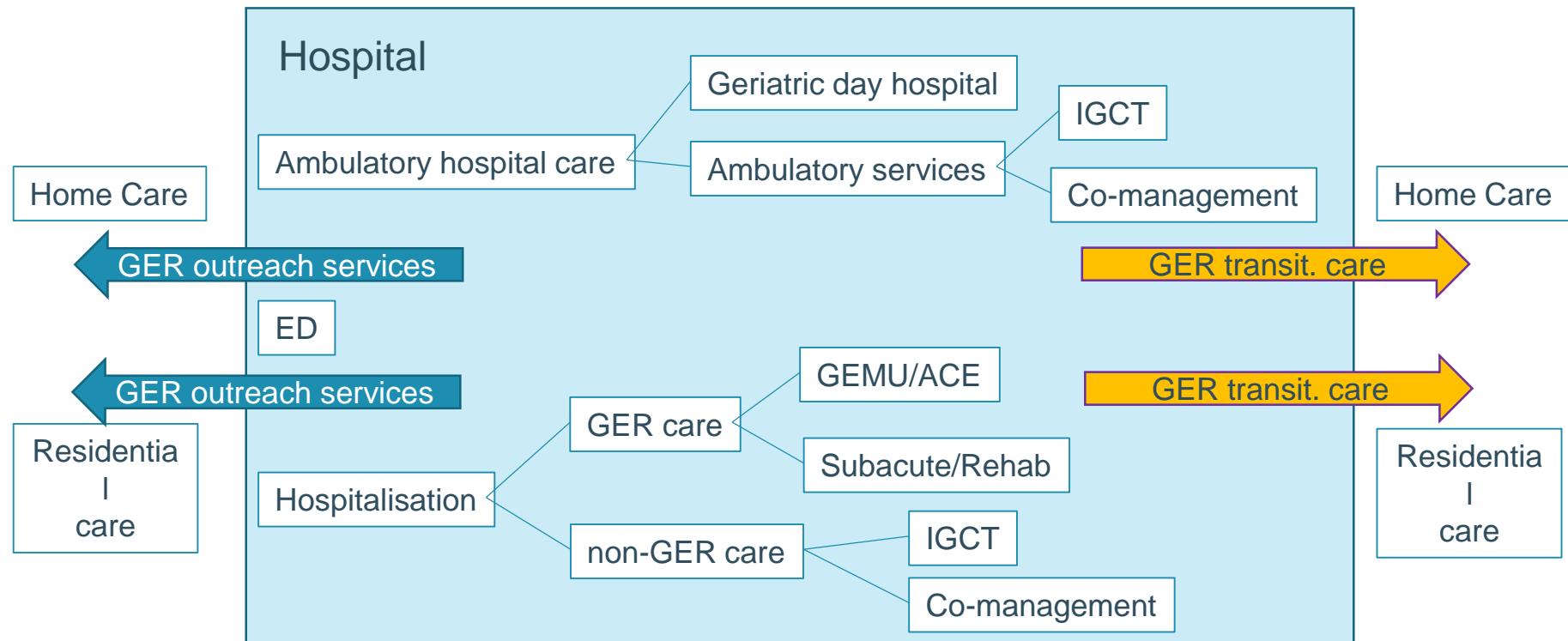
Abbreviations: GA, geriatric assessment; QOL, quality of life.

# Frailty screening methods for predicting outcome of a comprehensive geriatric assessment in elderly patients with cancer

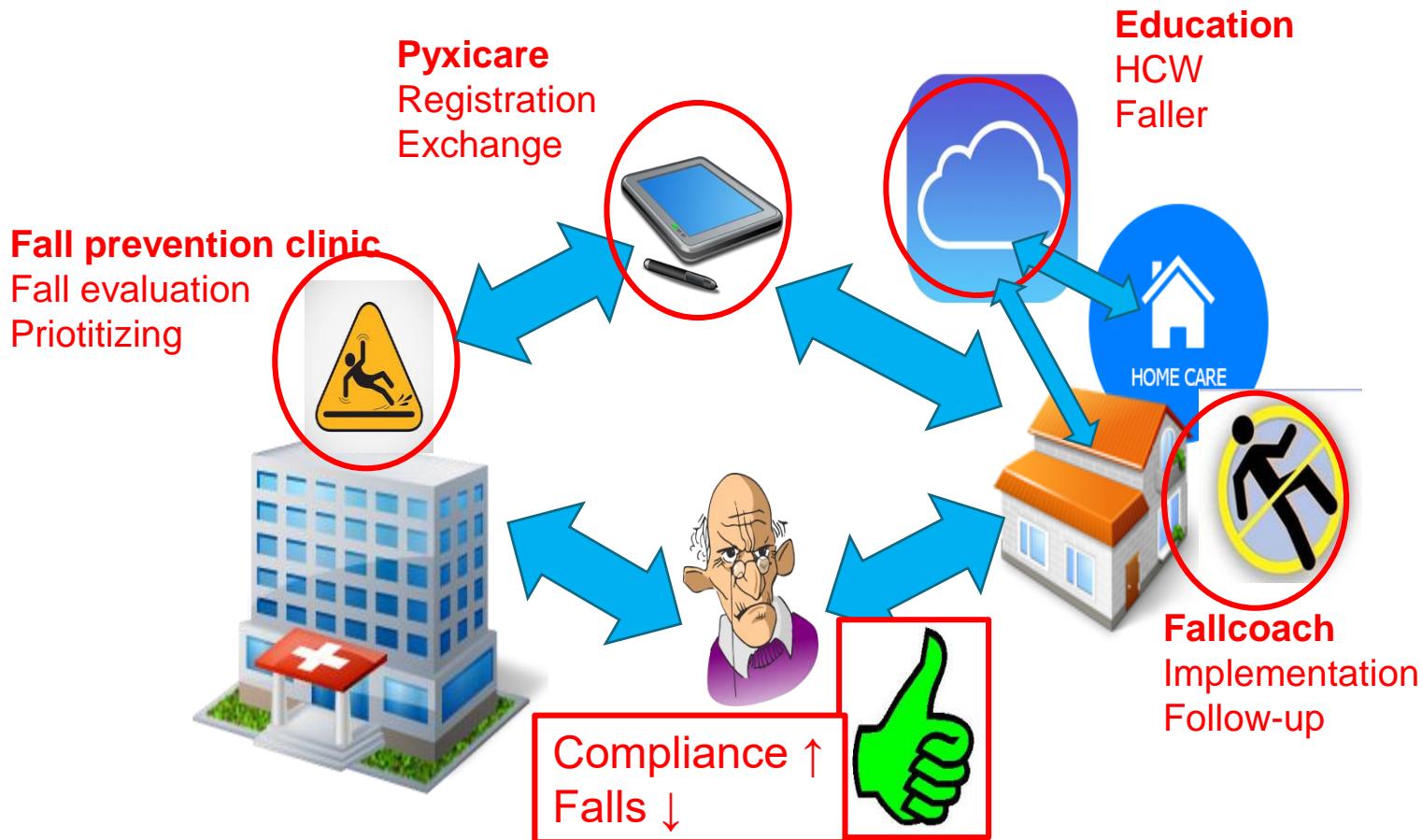
Use CGA



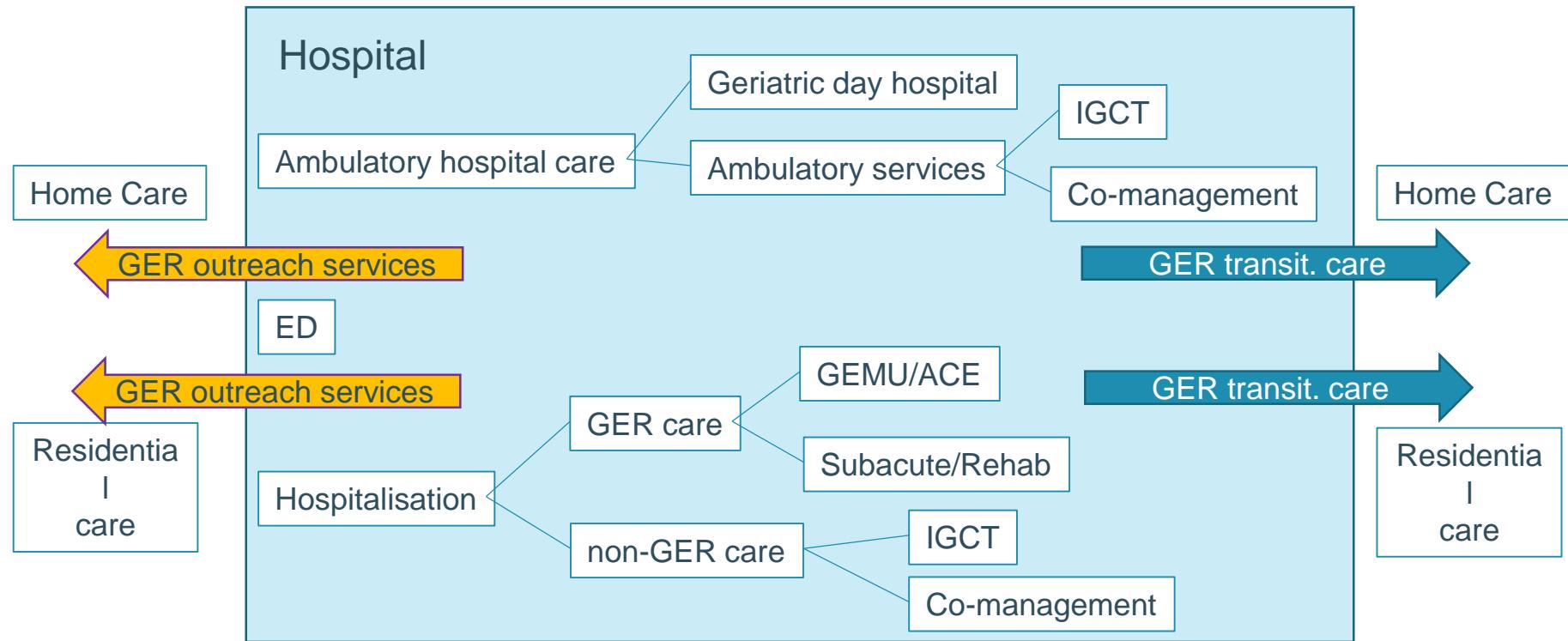
# CGA based care models for older persons



# Fall-net-interventions



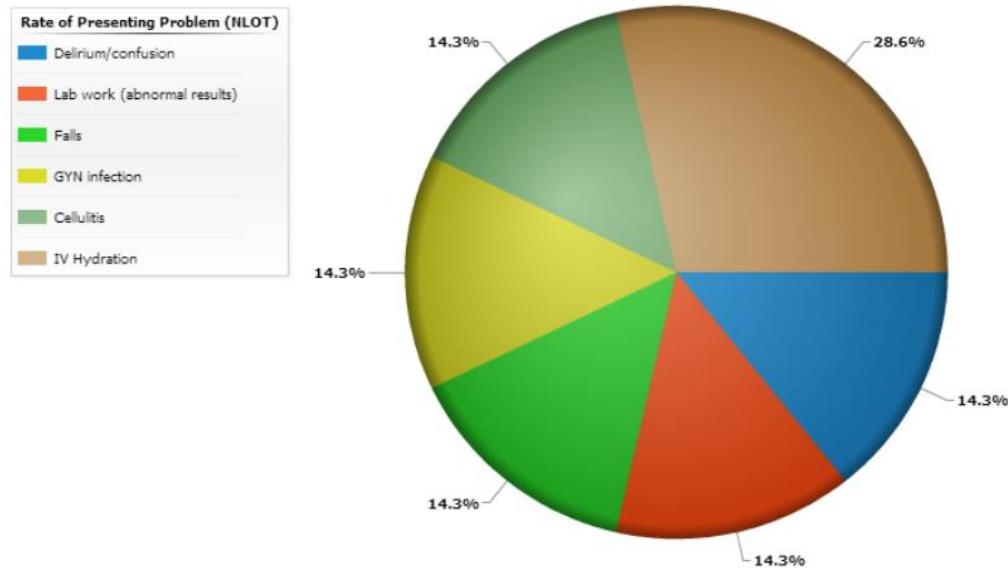
# CGA based care models for older persons



# Nurse Led Outreach Teams (NLOT) Toronto

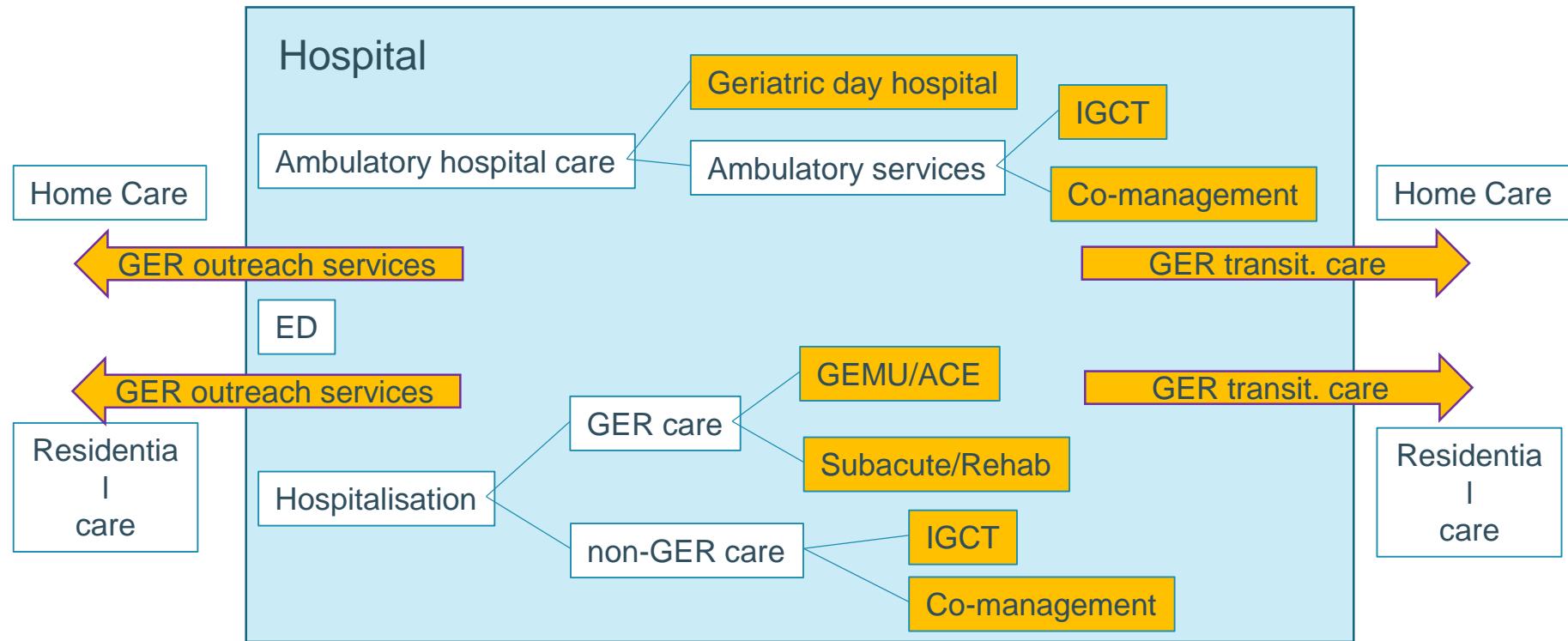
Outreach into LTCF

Prevention of ED and hospital admission.



**Figure 2.** Rate of presenting problem seen by NLOT.

# CGA based care models for older persons



# Image.eu

## Intentions

Intention to implement ... N (%)		Total N = 178	Belgium N = 69	Denmark N = 22	Estonia N = 13	Greece N = 47	Iceland N = 4	Ireland N = 11	Malta N = 3	Slovenia N = 9
<b>Acute geriatric units</b>	In next year? In next 5 years?	4 (4.7) 15 (17.4)	NA	2 (9.1) 0	0 1 (7.7)	0 5 (10.9)	0 1 (33.3)	2 (28.6) 3 (42.9)	0 1 (33.3)	0 4 (50.0)
<b>Geriatric rehabilitation unit</b>	In next year? In next 5 years?	1 (0.7) 16 (11.7)	0 7 (14.6)	0 0	0 1 (9.1)	0 5 (11.1)	0 0	0 1 (25.0)	0 1 (33.3)	1 (12.5) 1 (12.5)
<b>Geriatric consultation team</b>	In next year? In next 5 years?	3 (3.7) 13 (16.0)	NA	1 (11.1) 2 (22.2)	0 0	0 5 (11.1)	0 1 (33.3)	1 (33.3) 1 (33.3)	1 (50.0) 0	0 4 (44.4)
<b>Geriatric co-management</b>	In next year? In next 5 years?	14 (11.1) 32 (25.4)	8 (19.5) 16 (39.0)	2 (25.0) 1 (12.5)	0 0	0 7 (15.6)	0 2 (50.0)	4 (44.4) 2 (22.2)	NA	0 4 (44.4)
<b>Geriatric ED boxes</b>	In next year? In next 5 years?	9 (5.5) 29 (17.9)	1 (1.6) 15 (23.4)	4 (19.0) 4 (19.0)	0 0	1 (2.4) 5 (11.9)	0 1 (25.0)	2 (22.2) 2 (22.2)	0 1 (33.3)	1 (12.5) 1 (12.5)
<b>Geriatric day clinic?</b>	In next year? In next 5 years?	2 (1.1) 12 (10.3)	0 1 (6.3)	1 (5.9) 2 (11.8)	0 0	1 (2.1) 5 (10.6)	0 1 (33.3)	0 1 (12.5)	0 0	0 2 (22.2)
<b>Transitional care programs</b>	In next year? In next 5 years?	8 (11.3) 13 (18.3)	4 (23.5) 4 (23.5)	1 (14.3) 2 (28.6)	0 0	0 2 (6.5)	0 1 (100.0)	2 (40.0) 2 (40.0)	0 1 (100.0)	1 (16.7) 1 (16.7)

**Legend:** Percentage of hospitals aiming to implement the care model in the next year or 5 years = **0 – 24%**, **25 – 49%**, **≥50%**

- National framework / legislation
- Geriatricians and specialized HCW
- Education: training in geriatric medicine





European Academy for Medicine of Ageing

## • XIII<sup>th</sup> EAMA Postgraduate Course in Geriatrics

- **Session 1: January 21-25, 2019**  
**Principles of Geriatric Care**  
Brussels, Belgium
- **Session 2: June 24-28, 2019**  
Cognition and Behaviour  
Vienna, Austria
- **Session 3: January 20-24, 2020**  
**Evidence-Based Medicine in Geriatrics**  
Nice, France
- **Session 4: June 22-26 2020**  
**How to Provide Geriatric Care**