

# GERIATRIC DAY HOSPITAL

Interuniversity course geriatric medicine, 15/03/2019

# SUMMARY

- History of GDH
  - Evidence from literature
  - Law 29/01/2007
- The pilot projects 01/2006-07/2015
- Current situation
  - Adapted law 2014
  - Financing
- GDH UZGent
- Future of GDH

# DAY HOSPITAL FOR GERIATRIC PATIENT: INTERNATIONAL LITERATURE

Patient population:

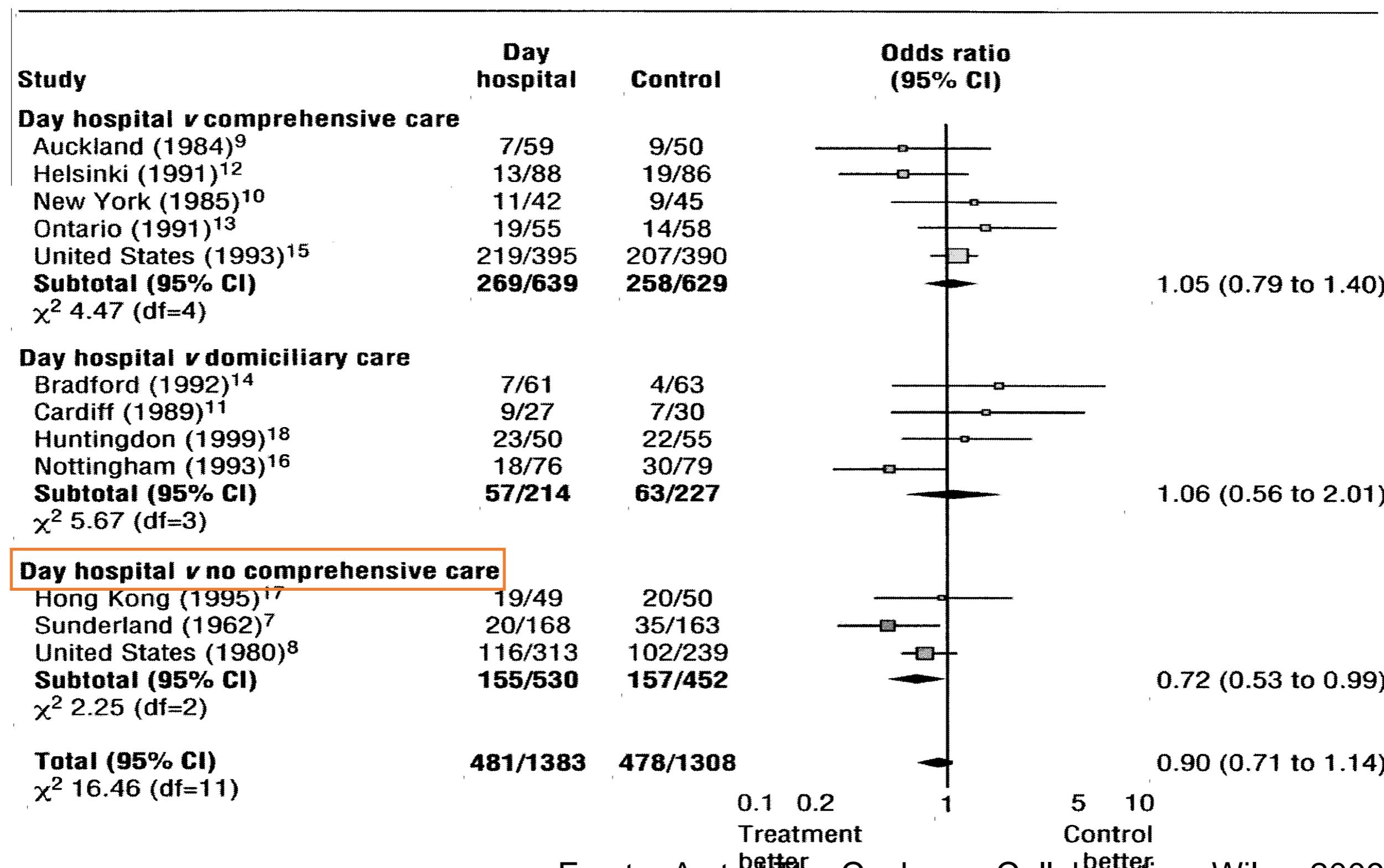
- Mean age 77 - 82 y

Activities (UK)

- 42% Revalidation
- 23% medical diagnostic
- 20% medical interventions or interventions by nurses
- 7% Functional assessment
- 7% Social evaluation

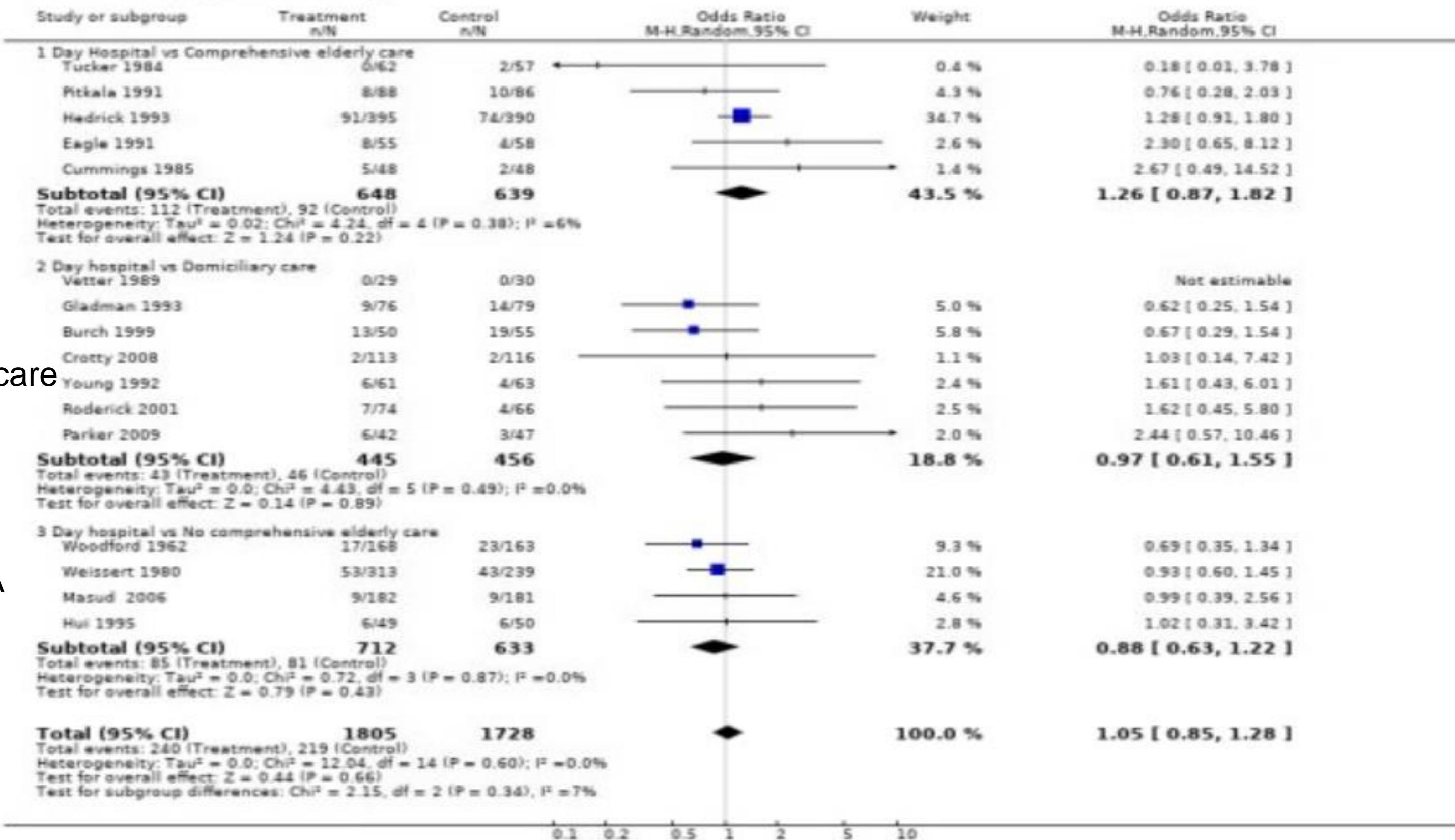


# DAY HOSPITAL FOR GERIATRIC PATIENT: INTERNATIONAL LITERATURE



Review: Medical day hospital care for older people versus alternative forms of care  
 Comparison: 1 Day Hospital vs Alternative Care - patient outcomes  
 Outcome: 1 Death by the end of follow up

## Death by end of FU



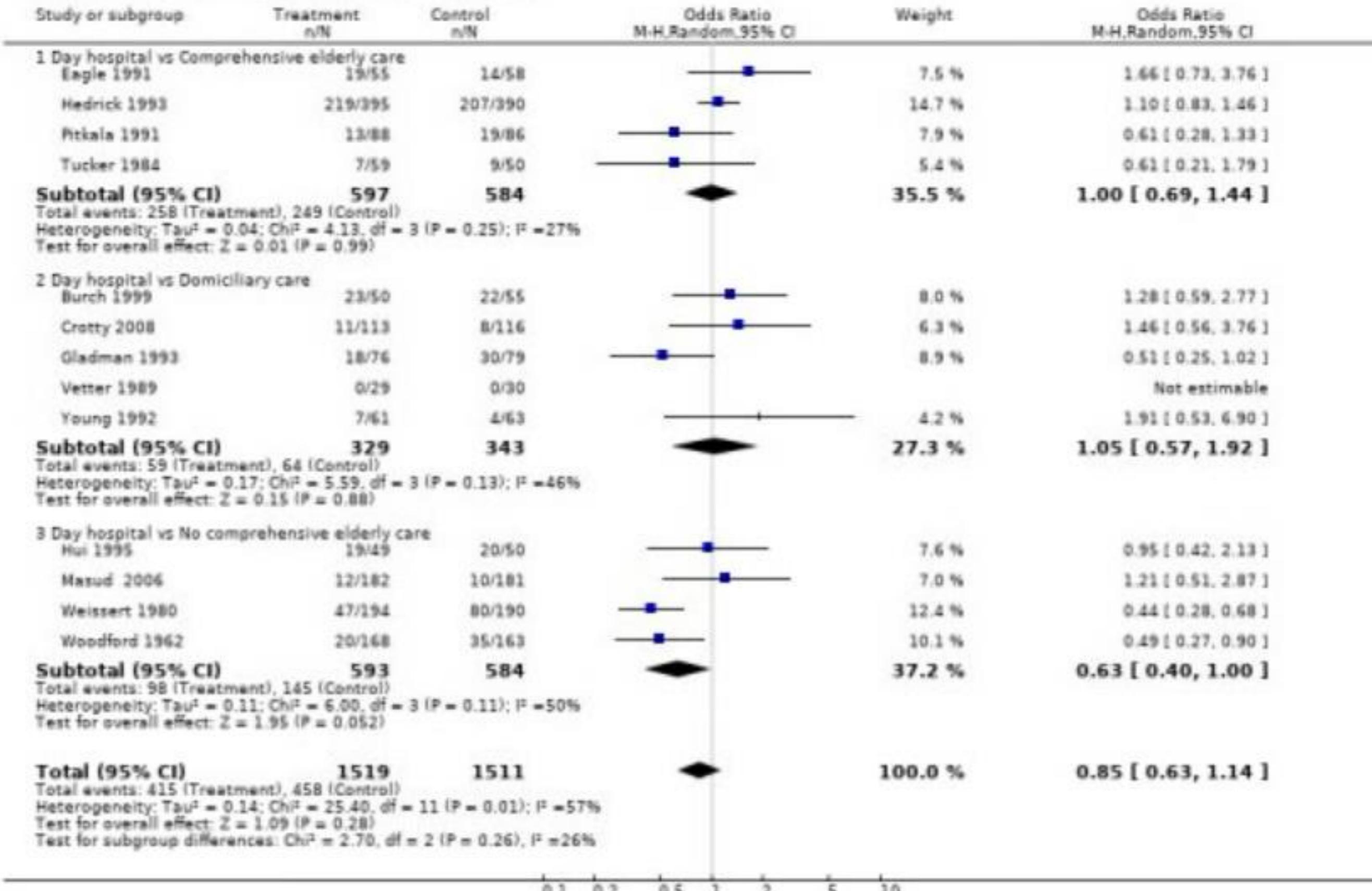
Vs CGA

Vs domiciliary care

Vs no CGA

Review: Medical day hospital care for older people versus alternative forms of care  
 Comparison: 1 Day Hospital vs Alternative Care - patient outcomes  
 Outcome: 2 Death or institutional care by the end of follow up

## Death or institutional care by end of FU



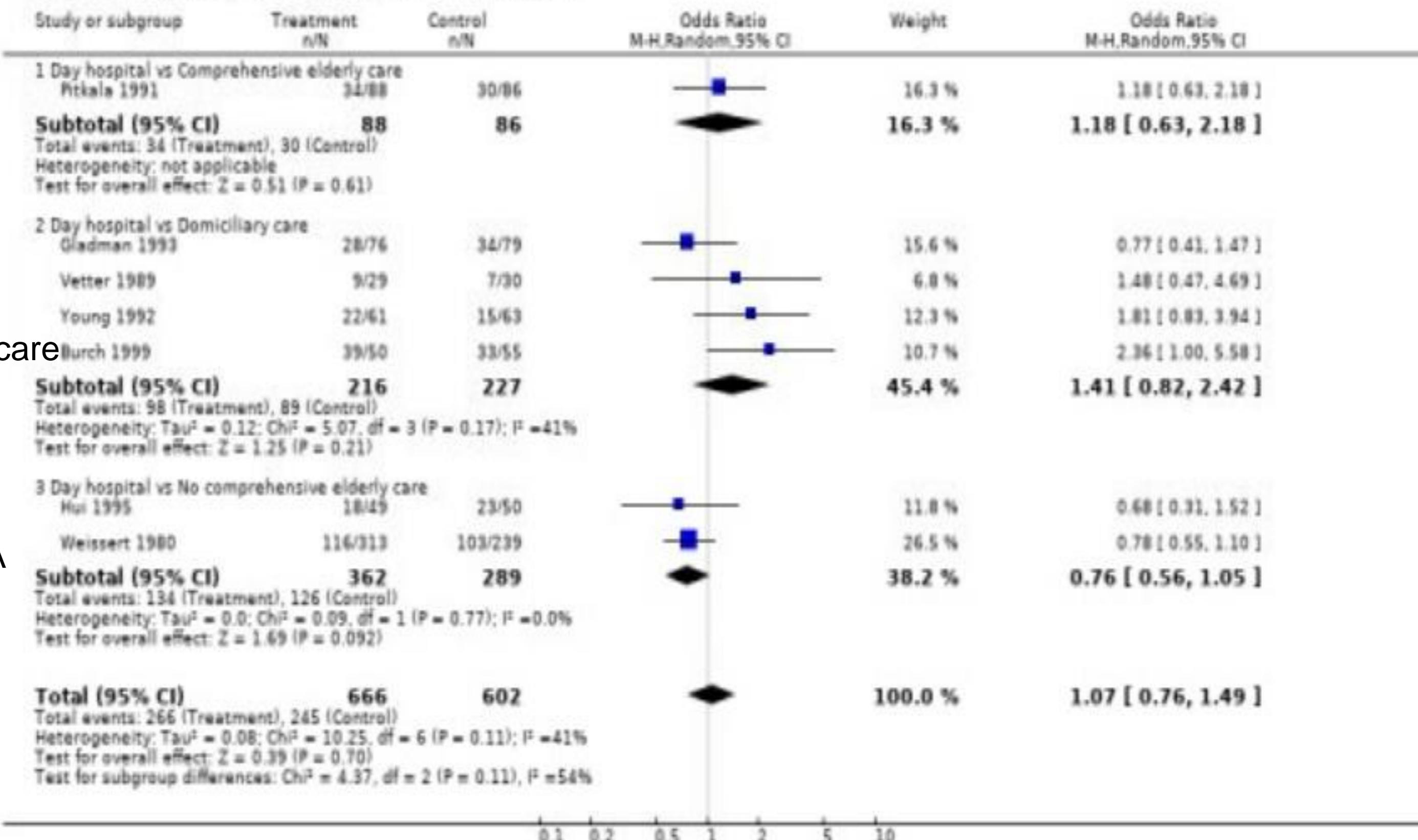
Vs CGA

Vs domiciliary car

Vs no CGA

Review: Medical day hospital care for older people versus alternative forms of care  
 Comparison: 1 Day Hospital vs Alternative Care - patient outcomes  
 Outcome: 3 Death or deterioration in activities of daily living (ADL)

## Death or deterioration ADL by end of FU



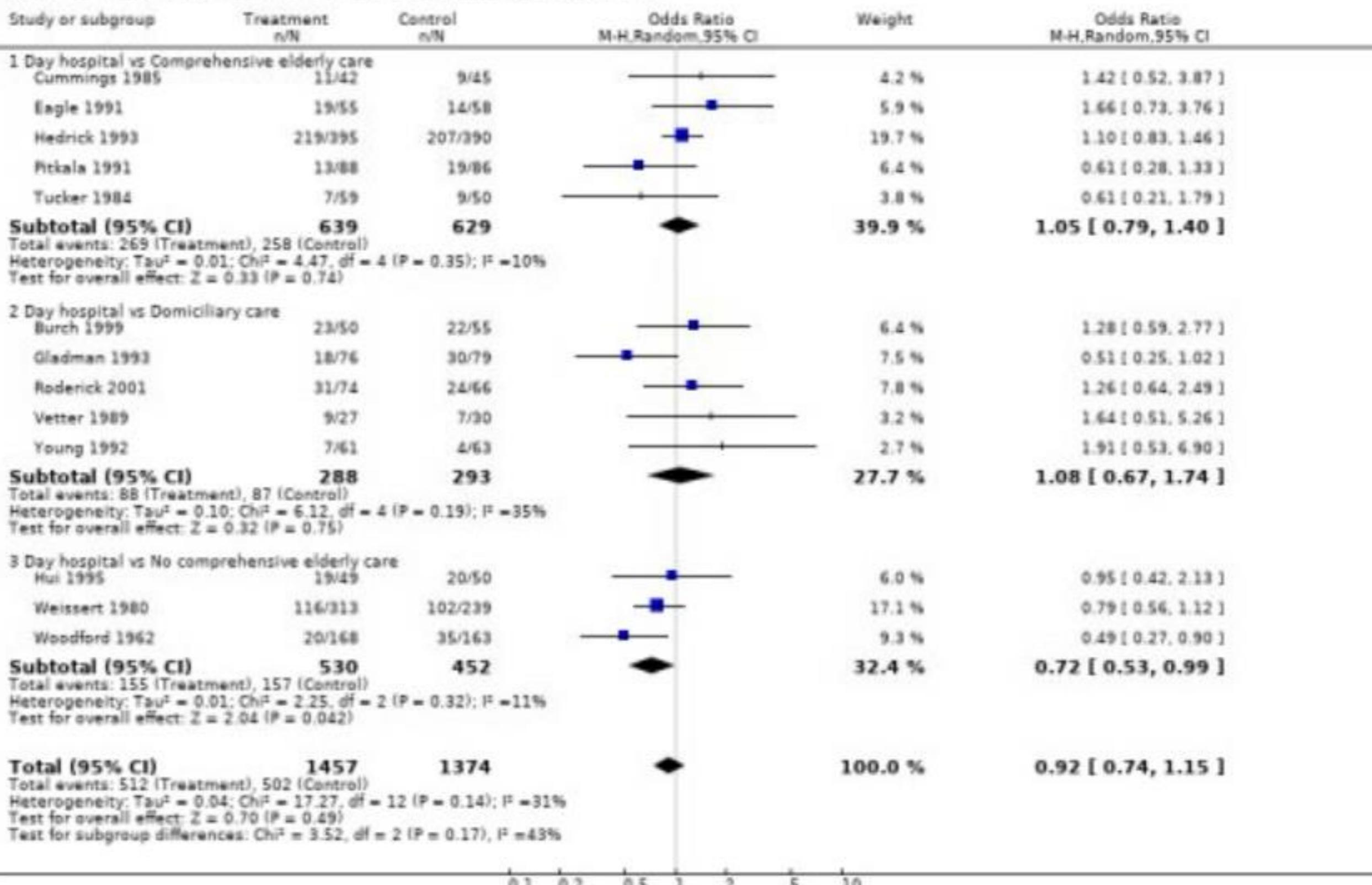
Vs CGA

Vs domiciliary care

Vs no CGA

# Death or poor outcome by end of FU

Review: Medical day hospital care for older people versus alternative forms of care  
 Comparison: 1 Day Hospital vs Alternative Care - patient outcomes  
 Outcome: 4 Death or poor outcome (institutional care, disability or deterioration)



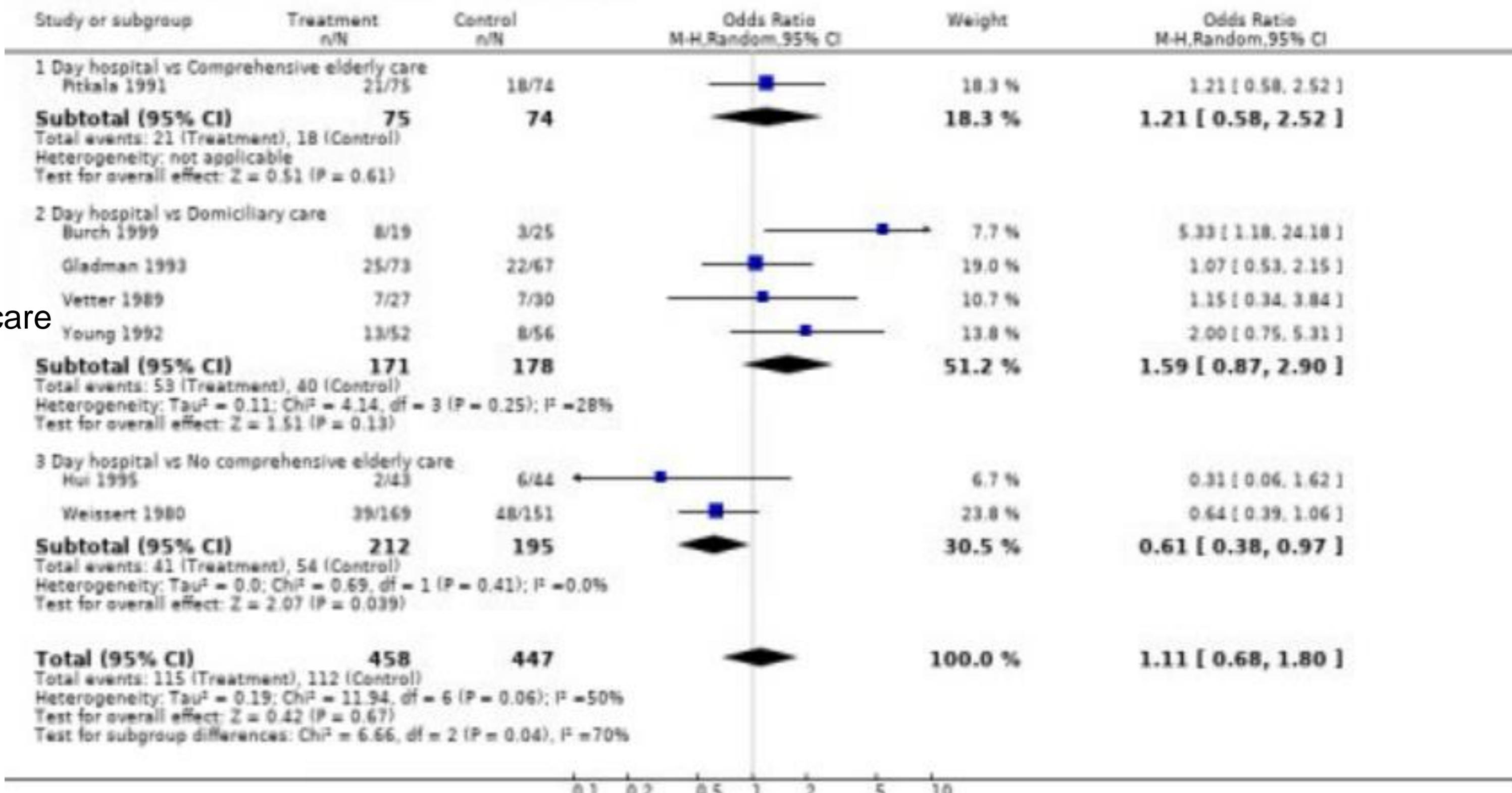
Vs CGA

Vs domiciliary car

Vs no CGA

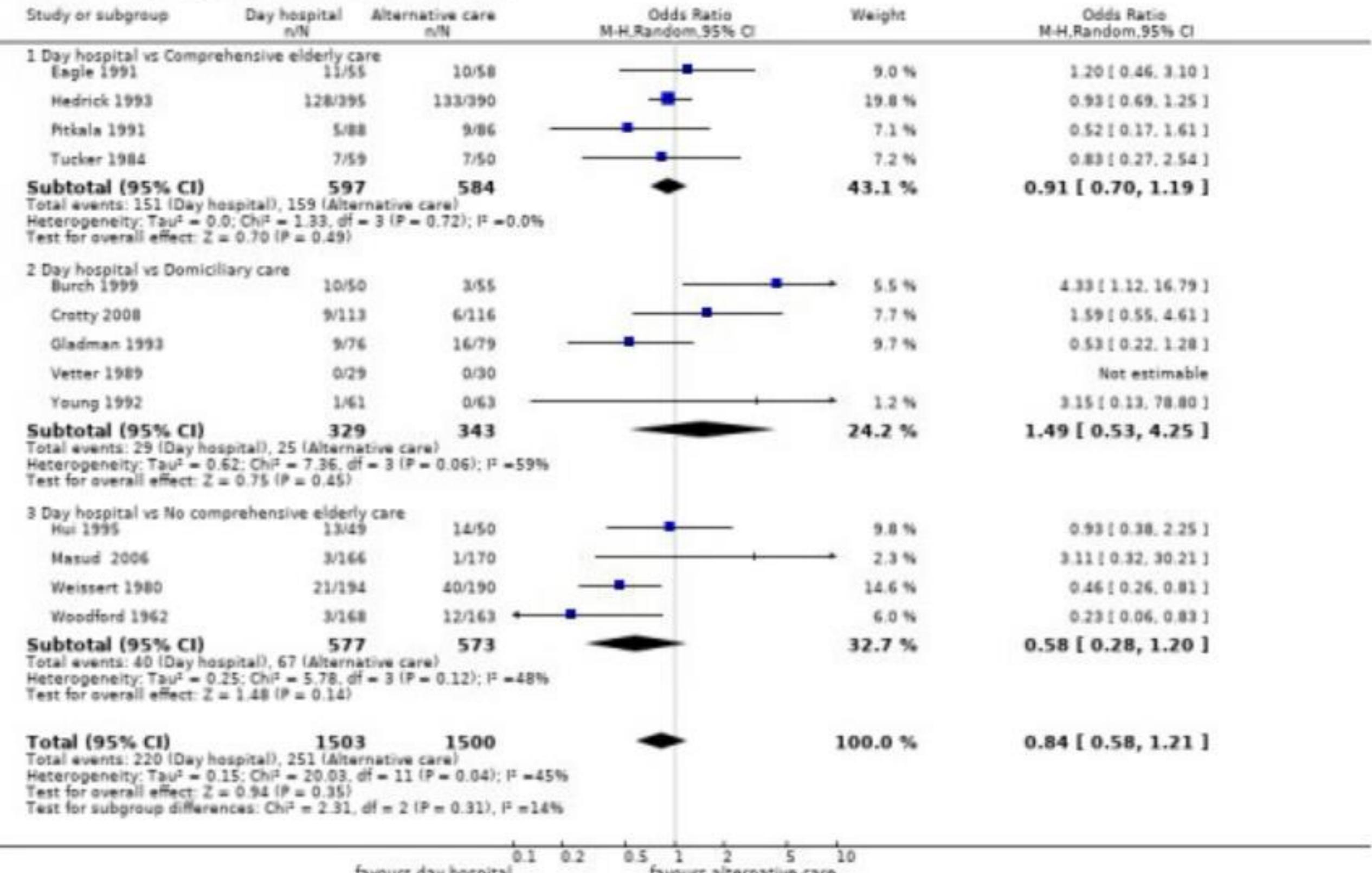
## Deterioration ADL by survivors

Review: Medical day hospital care for older people versus alternative forms of care  
 Comparison: 1 Day Hospital vs Alternative Care - patient outcomes  
 Outcome: 5 Deterioration in activities of daily living (ADL) in survivors



## Requiring institutional care

Review: Medical day hospital care for older people versus alternative forms of care  
 Comparison: 2 Day Hospital vs Alternative Care - resource outcomes  
 Outcome: 1 Requiring institutional care at the end of follow up



Vs CGA

Vs domiciliary c:

Vs no CGA

# DAY HOSPITAL FOR GERIATRIC PATIENT: INTERNATIONAL LITERATURE

- Effect
  - Better than no ‘comprehensive geriatric care’ (1a)
    - No significant difference in disability or mortality between the different settings of geriatric care
  - Trend for lower in hospital stay
  - No clear consensus on the settings, activities and composition of the geriatric multidisciplinary team

# BRITISH GERIATRIC SOCIETY, 2006

## RECOMMENDATIONS

- Comprehensive assessment in *frail elderly*
- Crisisintervention & subacute assessment (prevention of hospitalisation and early discharge)
- Treatment and rehabilitation of specific complex problem, as part of a “community based” rehabilitation.

RESEARCH ARTICLE

Open Access



CrossMark

# Treatment in a Geriatric Day Hospital improve individualized outcome measures using Goal Attainment Scaling

Paige Moorhouse<sup>1,2\*</sup>, Olga Theou<sup>1</sup>, Sherri Fay<sup>2</sup>, Miranda McMillan<sup>2</sup>, Heather Moffatt<sup>2</sup> and Kenneth Rockwood<sup>1,2</sup>

## Abstract

**Background:** Evidence regarding outcomes in the Geriatric Day Hospital (GDH) model of care has been largely inconclusive, possibly due to measurement issues. This prospective cohort study aims to determine whether treatment in a GDH could improve individualized outcome measures using goal attainment scaling (GAS) and whether improvements are maintained 6-months post-discharge.

**Methods:** A total of 469 outpatients admitted to a Canadian Geriatric Day Hospital, between December 2008 and June 2011, were included in the analysis ( $81.1 \pm 6.7$  years, 66.3% females); a smaller cohort of 121 patients received a follow-up phone call 6 months following discharge. Baseline, discharge and 6 month post-discharge observer-rated measures of mobility, cognition, and function were completed using GAS. Traditional psychometric measures were also captured.

**Results:** The mean number of goals set was 1.6 (SD 0.8) and patients set goals in the following domains: 88% mobility or falls reduction; 18% optimization of home supports; 17% medication optimization; 12% cognition; 8% increasing social engagement; and 5% optimization of function. Total GAS was the most responsive measure to change with 86% of patients improving at discharge; mobility goals were the most likely to be achieved. Six-month GAS scores remained significantly higher than GAS scores on admission. Those who had more goals were more likely to improve during GDH admission (OR 1.49, CI 1.02-2.19) but this association was not seen 6 months after discharge.

**Conclusions:** This study demonstrated short- and long-term effectiveness of GDH in helping patients achieve individualized outcome measures using GAS.

**Keywords:** Geriatric day hospital, Goal attainment scaling, Mobility

# CARE PROGRAMME FOR THE GERIATRIC PATIENT KB 29/01/2007

- Five functions
  - Acute Geriatric Wards (G Beds)
  - Ambulatory Care
  - **Geriatric Day Hospitals**
  - Liaison Interne (Intern Liaison Team)
  - Liaison Extern

# LAW 29/01/2007

## *Section III. – L'hôpital de jour pour le patient gériatrique*

Art. 15. L'admission en hôpital de jour pour le patient gériatrique se fait à la demande du médecin généraliste, d'un médecin spécialiste ou après une consultation gériatrique. L'objectif est d'organiser, de manière pluridisciplinaire, l'évaluation diagnostique, la mise au point thérapeutique et la réadaptation fonctionnelle.

## *Afdeling III. – Het dagziekenhuis voor de geriatrische patiënt*

Art. 15. De opname in een dagziekenhuis voor de geriatrische patiënt gebeurt op verzoek van de huisarts, een geneesheer-specialist of na een geriatrisch consult. De doelstelling bestaat erin om de diagnostische evaluatie, de therapeutische oppuntstelling en de revalidatie op pluridisciplinaire wijze te organiseren.

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# PILOT PROJECTS GDH – 01/2006

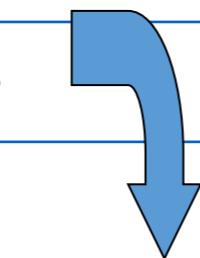
- Means by start of pilot projects on GDH:
  - 3 FTE personal means divided over:
    - 2 FTE nurses (B9) : 91 762€
    - 1 VTE paramedics (B4) : 45 881€
      - Psychologist, occupational therapist, physiotherapist, social nurse
  - Since 01/07/2007 financial means for hotel:
    - 121 312.96 €/y
    - Payment for the geriatrician
      - Multidisciplinary consult for patients referred by general practitioner and 75 years old (102233)
      - Consultation (102911)

# DESCRIPTIVE STUDY OF SITUATION – 2007

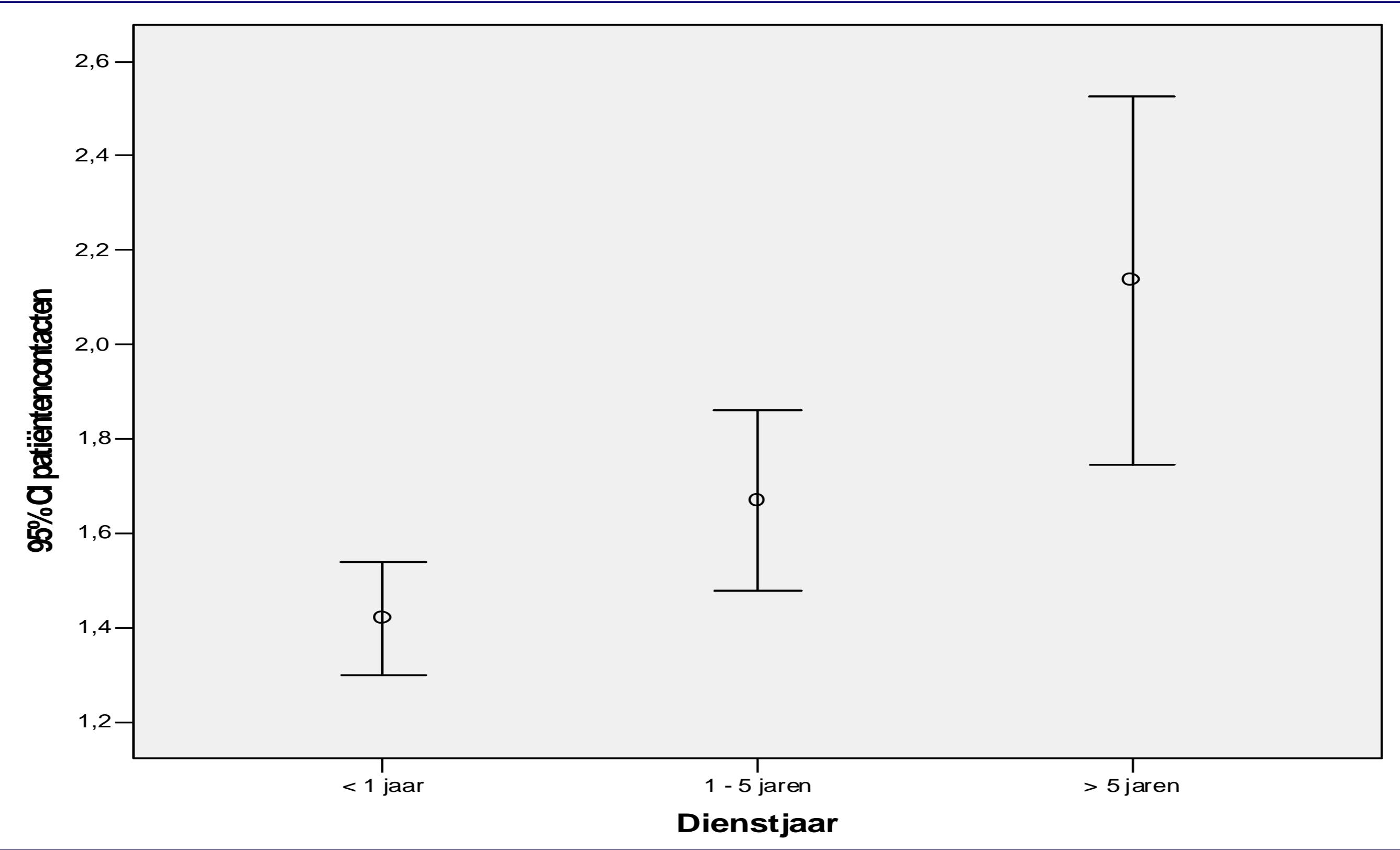
- Visit GDH
  - By members of the project
  - Through an electronic topic list
- Registration of patients (2007)
  - By GDH
  - Through an electronic topic list

# SITUATION GDH IN BELGIUM 10 YEARS AGO

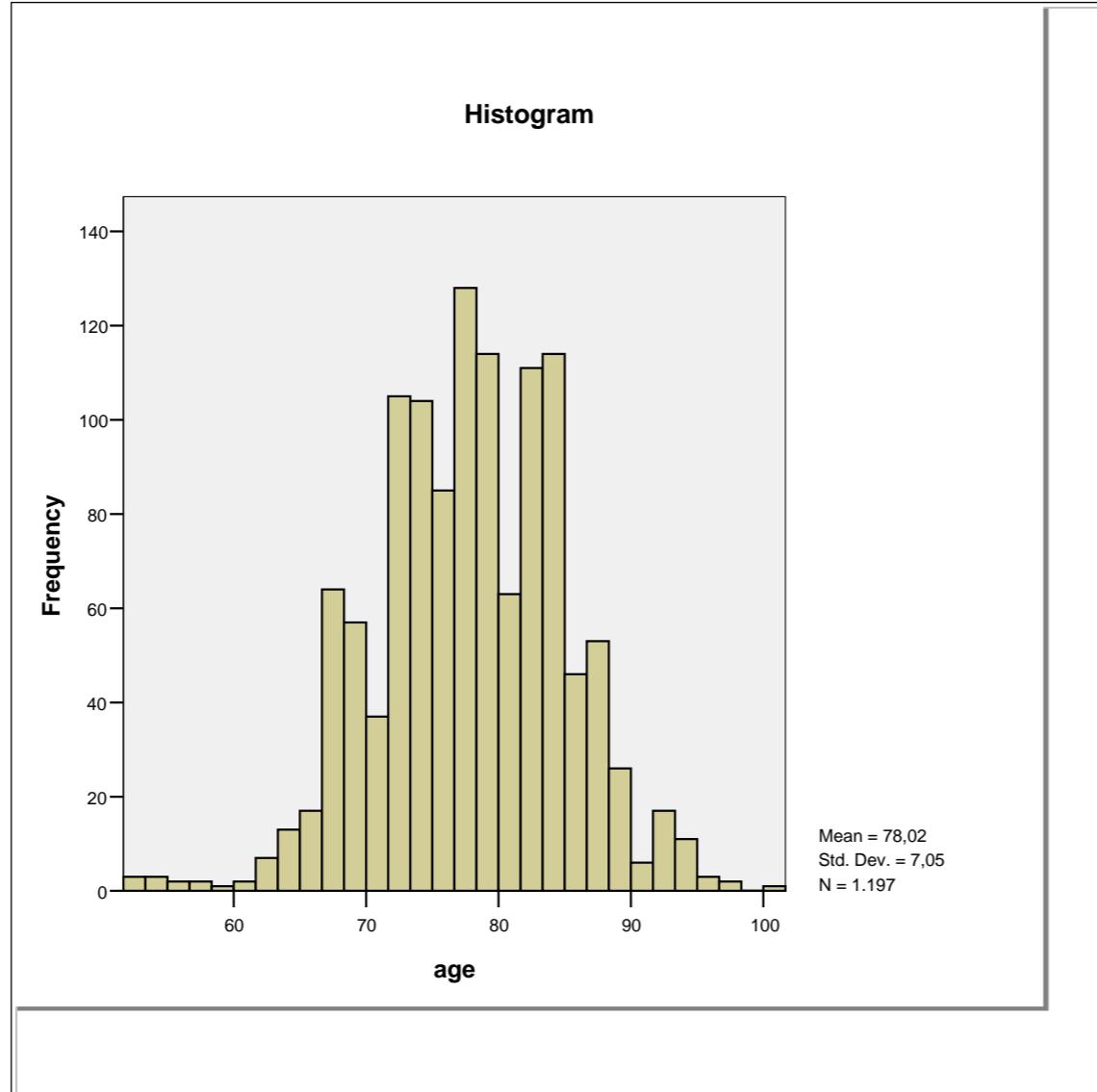
Start pilot projects	Dutch speaking hospitals	French speaking hospitals
2006*	27	19
2007*	8	6
2008	18	5
2009	2	2
<b>Total</b>	<b>55</b>	<b>32</b>



years of activity	Percent
< 1 year	66.7
1 - 5 years	14.6
> 5 years	18.8
Total	100
Missing	9.4



# GERIATRIC PATIENT



## Median age

- 78 years old
- $\frac{1}{4}$  younger than 75y

## Man/woman

- 47,1% till 79,7 % is woman

# PATIENT PROFILE IN GDH: RESULTS

- **Profile of the patient on the GDH is**
  - Compared to the acute G ward (%)
    - Younger ~ 3 yrs
    - More often admitted from home
    - More often discharged to home with less modification in care giving (only in 5.2% of pts)
  - Compared to General Population
    - Comparable level of education
    - More professional caregivers – seems to be more dependent than general population
    - Higher mortality rate (~ 19% versus 9.1%)
    - Higher admission rate in the acute hospital (66.7%)

# PERFORMED ACTIVITIES

	2006	2007
Diagnostic	85,0%	84.3%
Geriatric syndrome	56,7%	56.4%
Memory problems	39,6%	37.4%
Depression	9,2%	8.6%
Falls-mobility	23,3%	23.3%
Others	22,2%	27.1%
Specific medical problem	48,9%	47%

# PERFORMED ACTIVITIES

	2006	2007
Rehabilitation	4,5%	6.05%
Therapeutic	18,2%	16.64%
bloodtransfusion	18,2%	
Medication	52,0%	
Wound evaluation	9,9%	

# FOLLOW UP AFTER THREE MONTH

Not planned	40,1%
Re-admission	6,1%
Same problem	73%
Planned	31.6%
Re-admission	90,1%
Hospitalisation	5,2%
Died	2,5%

# FOLLOW UP STUDY AFTER ONE YEAR

	Frequency	Percent
No FU	844	66.5
FU	425	33.5
Total	1269	100

	Percent
Same problem	357 89.5
Different problem	42 10.5
Total	399 100
Missing	26 0.06

- No significant difference in age/sex between patients in FU and without FU

# FOLLOW UP STUDY 1Y: RESULTS

- Advice for **medication intake (69.3%)**
  - Followed in 95.6%
  - If not followed in 4.4%
    - 48.3% on own initiative; 51.7% advice of GP
- Advice for **rehabilitation therapy (20,7%)**
  - Followed in 85.6%
    - 15% in GDH; 40% at home; 45% started at GDH /continued at home
  - Not followed in 14.4%
    - 78.3% own initiative; 21.7% initiative of GP

# FOLLOW UP: RESULTS

- Outcome parameters:
  - Very difficult to define
    - FU in GDH seems to has only a small effect on family situation but no effect on stay at home, hospitalisation, need for professional caregivers
    - However family are in 75% of the cases convinced of the added value. This seems to be positively correlated with FU

# REFERRING PERSONS

Treating physician	85,7%
GP	31,3%
SP	68,7%
Family	1,7%
Care home	0,7%
Own initiative	2,9%

## **Geriatric Day Hospital: Opportunity or Threat?**

### **A Qualitative Exploratory Study of The Referral Behaviour of Belgian General Practitioners**

Piet Vanden Bussche\*, MD<sup>1</sup>, Fien Desmyter\*, MA<sup>1</sup>, Christiane Duchesnes, PhD<sup>4</sup>, Valérie Massart<sup>4</sup>, MA<sup>4</sup>,  
Didier Giet, MD<sup>4</sup>, Jean Petermans, MD, PhD<sup>3</sup>, Veerle Vyncke, 1 Nele Van Den Noortgate, MD, PhD<sup>2</sup>, Sara  
Willems, MA, PhD<sup>1</sup>

*Methods.* A qualitative study using focus group discussions (FGDs) was conducted. Fifteen FGDs were organized in the different Belgian regions (Flanders, Wallonia, Brussels).

*Results.* Contextual factors such as the unsatisfactory cooperation between hospital and GPs and organizational barriers such as the lack of communication on referral procedures between hospital and primary health care (PHC) were identified. Lack of basic knowledge about the concept or the local organization of GDH seemed to be a problem. Unclear task descriptions, responsibilities and activities of a GDH formed prominent points of discussion in all FGDs. Nevertheless a lot of possible advantages and disadvantages of GDHs for the patient and for the GP were mentioned.

# GERIATRIC DAY HOSPITAL: OPPORTUNITIES FOR GP

- Easier admission for patients who are afraid of hospitalisation
- Medical examination are coordinated (less transport for families)
  - Cave: sometimes exhausting for patient, dividing the program over 2 days?
- Holistic view on patient/Respect for elderly/adapted care in a special surrounding
- More comfort for consultation or technical examinations
- More comfort for family members

# Geriatric day hospital: Opportunities for GP(2)

- Avoiding complications from hospitalisation
- Opportunity from a multidisciplinary evaluation (CGA)
  - Diagnostic and treatment of geriatric syndromes
  - Second opinion (surgery, nursing home placement, palliative situation with limited life prognosis)

# PERSONAL MEANS: RESULTS

- **Personal Means**
  - The mentioned personal means are not always the necessary means
  - Strongly influenced by the financial means provided by the FOD/SPF
  - Less nurses are used (~ 1.5 FTE)
  - More physiotherapist, occupational therapist and psychologist are used than provided (~ 1.5 FTE)
  - Hospitals invest in the presence of social worker, dietician, speech therapist and administrative worker
  - Shortness of Geriatricians

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# LAW 29/01/2007 – ADAPTED 2014

## Hospitalisation de jour

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## Daghospitalisatie

### *Afdeling III. – Het dagziekenhuis voor de geriatrische patiënt*

Art. 15. De opname in een dagziekenhuis voor de geriatrische patiënt gebeurt op verzoek van de huisarts, een geneesheer-specialist of na een geriatrisch consult. De doelstelling bestaat erin om de diagnostische evaluatie, de therapeutische oppuntstelling en de revalidatie op pluridisciplinaire wijze te organiseren.

**Art. 13.** In afdeling III van hoofdstuk V van hetzelfde besluit worden de artikelen 15/1 tot 15/4 ingevoegd, luidende:

“Art. 15/1. De pluridisciplinaire geriatrische evaluatie gebeurt aan de hand van **wetenschappelijk gevalideerde instrumenten** en wordt uitgevoerd door een in artikel 12, 1°, bedoelde geneesheer-specialist, een verpleegkundige zoals bedoeld in artikel 12, 2°, en nog minstens een andere zorgverlener zoals bedoeld in artikel 12, 4°, 5°, 6°, 7° of 8°.

**Art. 13.** En section III du chapitre V du même arrêté sont insérés les articles 15/1 à 15/4, libellés comme suit:

“Art. 15/1. L'évaluation gériatrique pluridisciplinaire s'effectue au **moyen d'instruments scientifiquement validés** et est réalisée par un médecin spécialiste visé à l'article 12, 1°, un infirmier visé à l'article 12, 2° et encore au moins un autre dispensateur de soins visé à l'article 12, 4°, 5°, 6°, 7° ou 8°.

Art. 15/2. Een **eindverslag** van de geneesheer-specialist van de pluridisciplinaire geriatrische evaluatie zoals bedoeld in artikel 15/1, met de anamnese, de diagnose, de ziektegeschiedenis, de resultaten van de wetenschappelijk gevalideerde evaluatieschalen, de conclusies en het voorstel van zorgplan worden overgemaakt aan de behandelende huisarts en desgevallend de doorverwijzende geneesheer-specialist en de andere zorgverleners die de patiënt aanduidt. Dit eindverslag wordt opgenomen in het patiëntendossier en de patiënt wordt geïnformeerd omtrent deze overmaking van informatie.

Art. 15/2. Un **rapport final**, établi par le médecin spécialiste, de l'évaluation gériatrique pluridisciplinaire visée à l'article 15/1 comprenant l'anamnèse, le diagnostic, l'historique de la maladie, le résultats des échelles d'évaluation scientifiquement validées, les conclusions et la proposition de plan de soins est transmis au médecin généraliste traitant et, le cas échéant, au médecin spécialiste qui a envoyé le patient et aux autres dispensateurs de soins que le patient désigne. Ce rapport final est repris dans le dossier du patient et le patient est informé de cette transmission d'information.

Art. 15/3. De pluridisciplinaire geriatrische revalidatie is gericht op het behandelen van de moeilijkheden op vlak van cognitie, continentie, evenwicht en slikken die een pluridisciplinaire benadering nodig hebben.

Art. 15/4. Een pluridisciplinaire revalidatie door het pluridisciplinair geriatrisch team voldoet aan de volgende voorwaarden:

1° ze is gebaseerd op een voorafgaandijke pluridisciplinaire geriatrische evaluatie aan de hand van wetenschappelijk gevalideerde instrumenten die een revalidatie-behoefte aantoon;

Art. 15/3. La réadaptation fonctionnelle gériatrique pluridisciplinaire est axée sur le traitement des difficultés au niveau cognitif ainsi qu'au niveau de la continence, de l'équilibre et de la déglutition qui nécessitent une approche pluridisciplinaire

Art. 15/4. Une réadaptation fonctionnelle pluridisciplinaire par l'équipe gériatrique pluridisciplinaire répond aux conditions suivantes:

1° elle repose sur une évaluation gériatrique pluridisciplinaire préalable au moyen d'instruments scientifiquement validés qui démontre un besoin de réadaptation fonctionnelle;

2° voorafgaandelijk aan de pluridisciplinaire revalidatie wordt een individueel revalidatieplan opgesteld, dat wordt opgenomen in het patiëntendossier;

3° de revalidatie gebeurt door minstens 2 zorgverleners per geriatrische patiënt die elk een verschillende kwalificatie vertegenwoordigen zoals bedoeld in artikel 12, 4°, 5°, 6° en 8°;

4° een wekelijkse teamvergadering om de voortgang van de patiënt te evalueren en om eventueel het individuele revalidatieplan aan te passen;

2° en préalable à la réadaptation fonctionnelle pluridisciplinaire, un plan individuel de réadaptation fonctionnelle est établi, qui est repris dans le dossier du patient;

3° la réadaptation fonctionnelle est assurée par au moins 2 dispensateurs de soins par patient gériatrique représentant chacun une qualification différente telle que visée à l'article 12, 4°, 5°, 6° et 8°;

4° une réunion d'équipe hebdomadaire est organisée pour évaluer les progrès du patient et adapter éventuellement le plan individuel de réadaptation fonctionnelle;

5° na de revalidatie wordt een **verslag opgesteld** waarin de evolutie van de patiënt is beschreven en waarin een opvolgingsplan voor verdere thuiszorg is vervat. Deze documenten worden opgenomen in het patiëntendossier en bezorgd aan de behandelende huisarts en desgevallend de doorverwijzende geneesheer-specialist en de andere zorgverleners die de patiënt aanduidt. De patiënt wordt geïnformeerd omtrent deze overmaking van informatie;

6° de pluridisciplinaire geriatrische revalidatie is beperkt tot **maximaal 40 sessies** binnen een **periode van 12 weken.** De geriatrische revalidatie kan jaarlijks slechts 1 keer plaatsvinden.”.

5° après la réadaptation fonctionnelle, un **rapport** est établi décrivant l'évolution du patient et comprenant un plan de suivi pour la poursuite des soins à domicile. Ces documents sont repris dans le dossier du patient et transmis au médecin généraliste traitant et, le cas échéant, au médecin spécialiste qui a envoyé le patient et aux autres dispensateurs de soins que le patient désigne. Le patient est informé de cette transmission d'information;

6° la réadaptation fonctionnelle gériatrique pluridisciplinaire est limitée à **un maximum de 40 sessions** sur **une période de 12 semaines.** La réadaptation fonctionnelle gériatrique ne peut avoir lieu qu'1 fois par an.”.

# ARCHITECTURAL STANDARDS

**Art. 27.** Artikel 30 van hetzelfde besluit wordt vervangen als volgt:

“Art. 30. De daghospitalisatie voor de geriatrische patiënt vindt plaats in een herkenbare en aanwijsbare entiteit. Deze entiteit omvat minimaal het volgende:

- 1° voldoende onderzoekslokalen voor medische, verpleegkundige en andere zorgverleners;
- 2° een verzorgingslokaal;
- 3° een rustlokaal met aangepaste zetels;
- 4° een eetkamer;
- 5° voldoende sanitaire installaties voor de patiënten.

De lokalen bedoeld in 3° en 4° mogen in een zelfde ruimte worden ingericht.

**Art. 27.** L'article 30 du même arrêté est remplacé comme suit:

“Art. 30. L'hospitalisation de jour pour le patient gériatrique s'effectue dans une entité reconnaissable et distincte. Cette entité comprend au minimum les éléments suivants:

- 1° suffisamment de locaux d'examen pour les dispensateurs de soins médicaux, infirmiers et autres;
- 2° un local de soins;
- 3° un local de repos pourvu de fauteuils adaptés;
- 4° une salle à manger;
- 5° suffisamment d'installations sanitaires pour les patients.

Les locaux visés en 3° et 4° peuvent être aménagés dans un même espace.

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- Future of GDH

# STRUCTURAL FINANCING OF GDH

## SINCE 07/2014

- Costs for hospitalisation (beds, food, rooms, cleaning) are cashed through the B2 budgets
- A yearly calculated fixed amount is payed by government through the B4 budget for personal means
  - depending on the amount of day hospitalisations during the last year (re-evaluated every 2 years)
    - $\leq 520$  : 81.900€
    - 521-1040: 136.500€
    - 1041-1560: 227.500€
    - 1561-2080: 318.500€
    - $> 2080$ : 409.500€

# STRUCTURAL FINANCING OF GDH

## SINCE 07/2014

- Conditions to count as GDH
  - The presence (continuously) of a nurse with the special professional title of geriatric nursing
  - Pluridisciplinary evaluation with standardized instruments by a geriatrician, nurse and at least one other discipline

# RIZIV/INAMI CODE GERIATRICIAN

- Consultation 102911
  - Also for transfusion, IV medication
  - Pt < 75j
  - ~ 40 €
- Multidisciplinary geriatric evaluation 102233:
  - Only patients  $\geq 75j$
  - Note of the General physician
  - ~ 110 €
- Diagnostic for dementia (only once)
  - Special diagnostic bilan 102992 ~ 68 €
  - Neuropsychologic investigation 477573 ~107 €

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# GDH UZGENT

- 2 days/week ; ~ 10 pts/ w
- Activities
  - Diagnostic/therapeutic programme
  - Psychosocial programme for patients with cognitive disorders
- Team
  - Nurse, occupational therapist, psychologist and physician
  - On demand: physiotherapist, speech therapist, dietician, social worker and ...
  - Nurse is coördinating – administrative back-up

# GDH UZGENT

- Day programme
  - Preparation of the patients by nurse and physician the day before
  - Written applicationform
  - Different programs defined depending on the reason of admission
  - Everyone is seen by nurse coördinator, occupational therapist, the physician and most by psychologist
  - 14h00: multidisciplinary team meeting
  - Report and discharge letter are prepared

# THE FUTURE OF THE GDH..??

# THE FUTURE OF GERIATRIC DAY HOSPITALS ...

## AGE AND AGEING, 2009

The future of geriatric day hospital is bright provided its role changes with the changing needs of the elderly population. It should maintain its traditional role but should offer new flexible services for frail elderly patients; the possibilities are endless. As the working of the geriatric day hospital is changing, it may be prudent to rename this facility. Elderly Medical Assessment Unit will be more realistic and will help to change its image.

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- GDH is still developing
- The existing literature is too heterogenous to give us a good and fundamental advice concerning structures of GDH, effectiveness etc...
- Geriatric assessment is a fundamental part of treating a person in GDH.

# QUESTIONS???

