

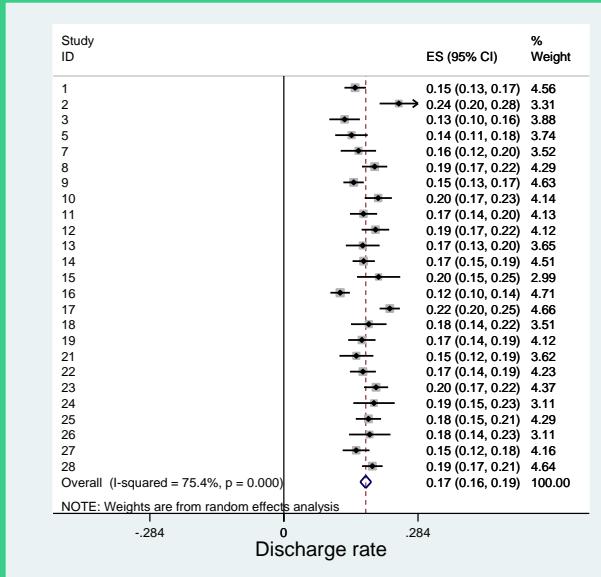
Geriatric Emergency Medicine

The Leicester story

Simon Conroy
Professor of Geriatric Medicine

In the beginning...

- Clinical experience > how to improve outcomes for older people with acute care needs?
- Education and training
- Benchmarking
- Championing ('heroic' leadership)
- Result = no change



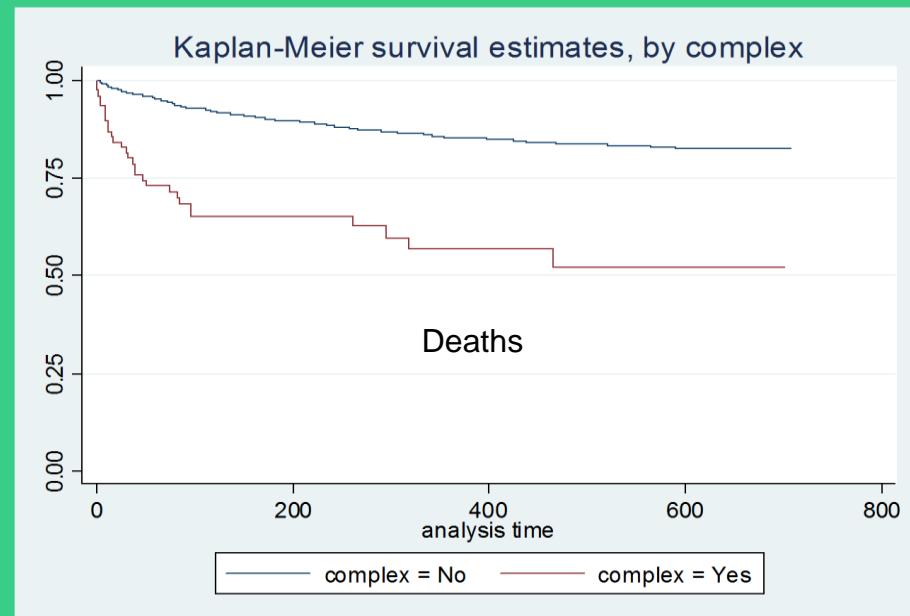
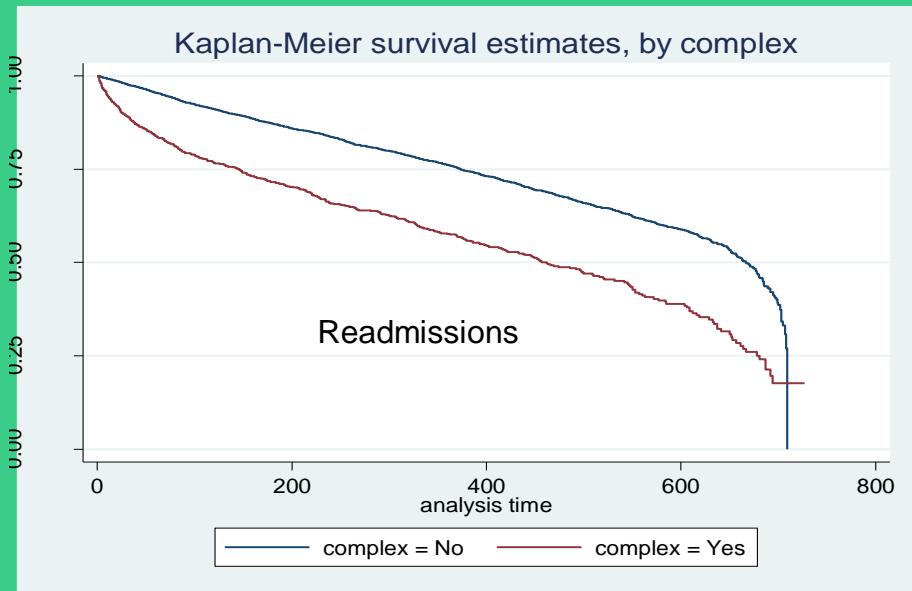
The journey from research into practice



What it might have looked like

- ‘Poor’ service outcomes
- Definition of ‘the problem’
- Literature review to find a solution
- Testing for feasibility
- Randomised controlled trial

'Poor' service outcomes



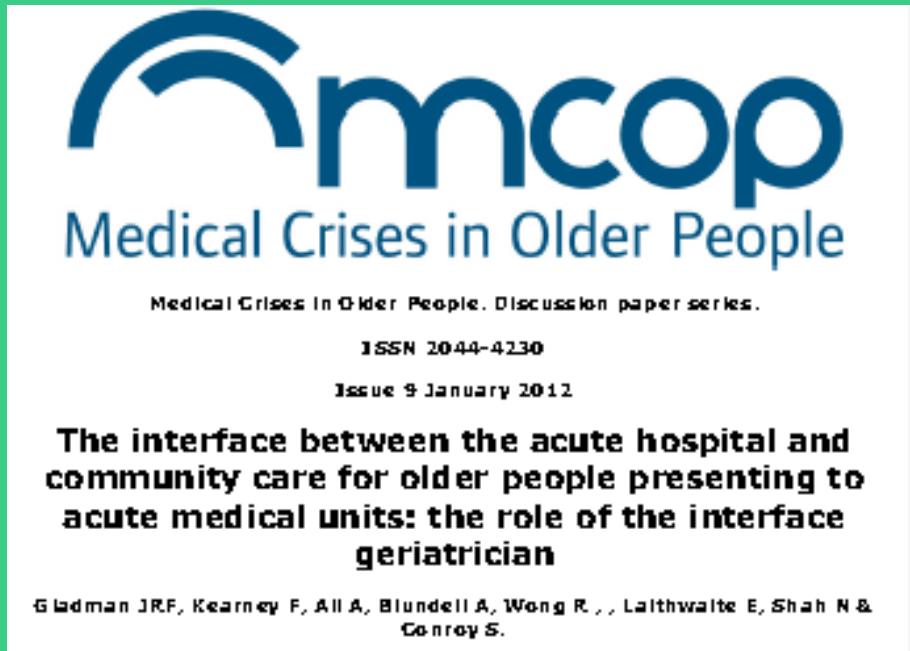
Definition of ‘the problem’

- 52 patient cohort study
- Assessed by a geriatrician
- In 42/52 (81%), additional interventions would have been appropriate including:
 - medication reviews (38%)
 - falls management (29%)
 - additional community follow up (21%)
- Mean 1.7 (95% CI 1.4-2.0) additional interventions per patient

So what's the problem?

- Not enough CGA & too much specialism
 - Protocols vs patient centred care
- Everybody's business can become nobody's business
- CGA ≠ geriatricians (although they are good at it 

Developing the intervention



Testing the intervention

BMJ



BMJ 2013;347:f5874 doi: 10.1136/bmj.f5874 (Published 8 October 2013)

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RESEARCH

Specialist geriatric medical assessment for patients discharged from hospital acute assessment units: randomised controlled trial



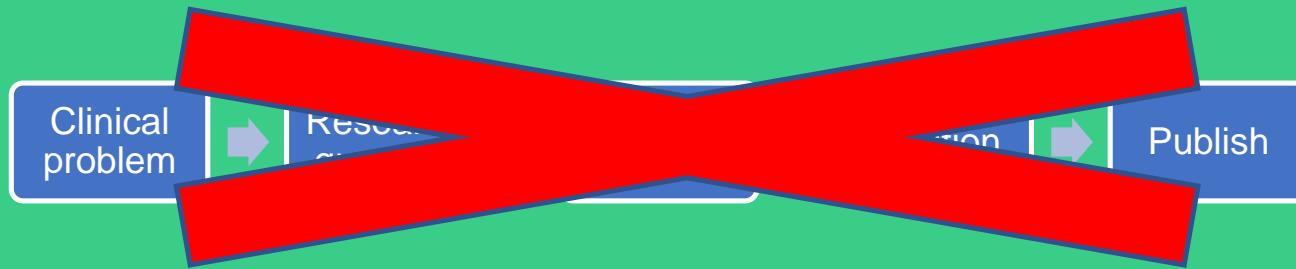
OPEN ACCESS

Judi Edmans *senior research fellow*¹, Lucy Bradshaw *medical statistician*¹, Matthew Franklin *health economist*², John Gladman *professor of medicine for older people*¹, Simon Conroy *geriatrician/honorary senior lecturer*³

Routes to impact

- Empirical evidence or knowledge (what intervention, for whom, does it work, and is it cost-effective?)
- Policy influence or context (is it acceptable in the political landscape and sufficiently prioritised over competing issues?)
- Local implementation strategies (tools for local teams of clinicians and managers to implement the intervention effectively)

The journey from research into practice



How long does it take for research findings to get in to clinical practice?

- a) 17 days
- b) 17 weeks
- c) 17 months
- d) 17 years
- e) Don't know

The journey from research into practice

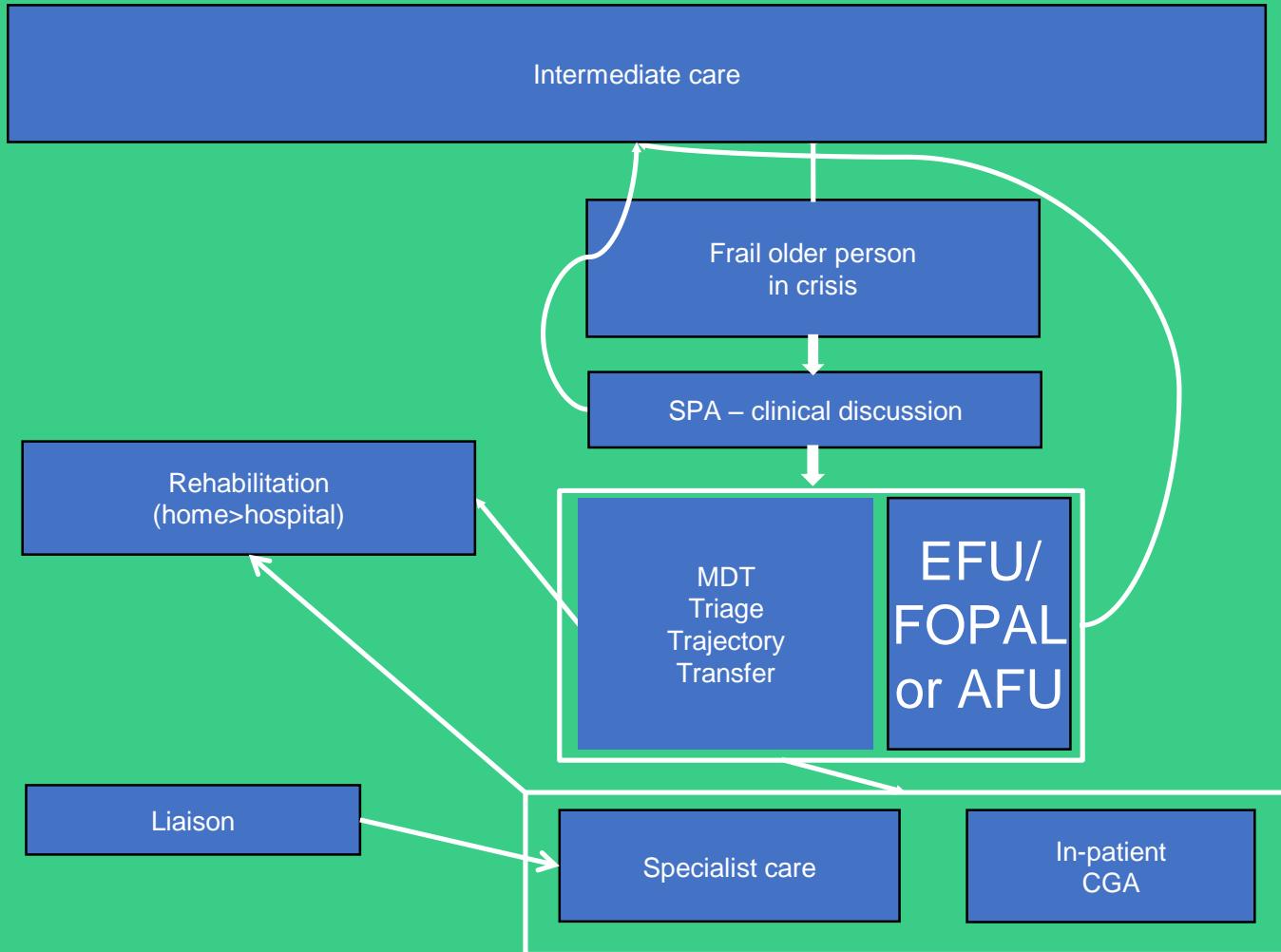


What really happened...

Year	Research	Service development	Policy influence
2009-10	Systematic review Cohort study	Acute frailty unit I	
2010-11	Feasibility study RCT	Emergency Frailty Unit FOPAL Fellowships	Conferences, meetings, opinion pieces, RCP policy committee
2012-13	RCT, publications Related grant income	EFU→FOPAL→AFU II & EFU Whole system influence Fellowships	EUGMS SiG, conferences, Silver book, RCP guidelines, media work
2014-15	Final publications	Urgent care floor redesign Whole system influence e.g. OPU GER ED consultants	International e.g. GEM curriculum

What we did...

- Integrated take ➔ dedicated geriatric take
- Vertically integrated services for frail older people
- Focussed comprehensive geriatric assessment, including social care
 - At and across the interfaces;
 - Coordinated and communicated
- Horizontal integration (ED and GER) -> GEM
- Whole system, collaborative leadership



ED STAT / nurse assessment

Patient details University Hospitals of Leicester NHS Trust

Full Name _____
Dob _____
Unit Number _____
(use sticker if available)

Date Time STAT doctor Nurse - name and ID

APT : Over 65

Pain score	0	1	2	3	4	5	6	7	8	9	10
Time analgesia was offered	Time	00:00:00	use 24h clock								
	0	1	2	3	4	5	6	7	8	9	10
Time pain score was repeated	Time	00:00:00	use 24h clock								
	0	1	2	3	4	5	6	7	8	9	10
Analgesia declined in spite of reassurance and careful explanation of the effects											
Analgesia again declined											

Triage to [ER] [Med] [Mn] [To be seen by] [UCC] [Own GP] [Self-care]

Bloods and IV access

	Done by
IV access	<input type="checkbox"/> required
Nearset bloods	<input type="checkbox"/> FBC (NB: send to lab after near-patient test) <input type="checkbox"/> Venous blood gas
Lab bloods	<input type="checkbox"/> U&Es <input type="checkbox"/> U&G <input type="checkbox"/> Amylase <input type="checkbox"/> LFT <input type="checkbox"/> CK <input type="checkbox"/> TFT <input type="checkbox"/> Paracetamol <input type="checkbox"/> Salicylate <input type="checkbox"/> Other <input type="checkbox"/> INR <input type="checkbox"/> D-Dimer <input type="checkbox"/> G&S <input type="checkbox"/> X-match <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 10 units <input type="checkbox"/> Malaria screen <input type="checkbox"/> HIV test <input type="checkbox"/> Hepatitis serology
Blood culture	<input type="checkbox"/>
Arterial gas	<input type="checkbox"/>
Delayed bloods	<input type="checkbox"/> Paracetamol required at Time 00:00:00

Further tests

	Done by
ECG	<input type="checkbox"/>
Urine tests	<input type="checkbox"/> Dipstick urinalysis <input type="checkbox"/> Beta HCG <input type="checkbox"/> Culture and sensitivity
Imaging	<input type="checkbox"/>
BP (lying/standing)	<input type="checkbox"/>
Capillary test	<input type="checkbox"/>
Visual acuity	<input type="checkbox"/>

Property

- Patient able to take responsibility (NB: ensure policy has been explained)
- Values sent to Patient Affairs
- Others out, checked and GTR/HTR
- Given to relative OR
- Disposed of

Allergies

Name band on patient (tick when done)

Good communication

- Does someone know patient is in ED?
- Dependents needing care?
- Who is responsible (NB: ensure this is done)
- Does the patient have a named carer?
- NIHR or other diet restrictions?
- Is this a vulnerable adult?
- Are pts ADL restricted? (if yes: give reason)
- Does patient need further explanation as to what is happening with them?
- Risk of wandering? (if yes: give description)

Initial Obs

Weight (kg)	<input type="text"/>
HR (bpm)	<input type="text"/>
Spo ₂ (%)	<input type="text"/> <input type="checkbox"/> on air <input type="checkbox"/> on O ₂
Rise rate (mm)	<input type="text"/>
Pulse rate (mm)	<input type="text"/>
Initial lying/standing	<input type="text"/>
BP (mm Hg)	<input type="text"/> <input type="text"/> <input type="text"/>
Temp (°C)	<input type="text"/>
GCS	<input type="text"/> <input type="text"/> <input type="text"/>
V	<input type="text"/>
M	<input type="text"/>
Total	<input type="text"/>
Pupils	<input type="text"/> <input type="text"/>
Size (mm)	<input type="text"/>
Reaction	<input type="text"/>
SM (mmol/L)	<input type="text"/>
EWS	<input type="text"/>

Complete for all patients

AMT4 (4-item Abbreviated Mental Test) II

Write down patient's answer below

What was your date of birth?

Wrong Correct

What is the name of this place?

Wrong Correct

How old are you?

Wrong Correct

What year is it?

Wrong Correct

A score of less than 4 suggests cognitive impairment; look for evidence of dementia, delirium, or both

Number of questions answered correctly

EFU (Emergency Frailty Unit) physician review

Consider if any of the below

- Fragility fracture
- Care home resident (nursing or residential)

- AMT4 less than 4
- On emergency frailty pathway

ISAR screening tool (Identification of Seniors At Risk) R - Ask老人 if patient unable to answer

Before the illness or injury that brought you to the Emergency Department, did you need someone to help you one regular basis?

No Yes

Since the illness or injury that brought you to the Emergency Department, have you needed more help than usual to take care of yourself?

No Yes

Have you been hospitalized for one or more nights during the past 6 months (excluding a stay in the Emergency Department)?

No Yes

In general, do you have serious problems with your vision, that can't be corrected by glasses?

No Yes

In general, do you have serious problems with your memory?

No Yes

Do you take more than three different medications every day?

No Yes

If scoring more than 1

* Ask Primary Care Coordinator to review (if one is around)

* Inform GP that patient is Senior At Risk over the next 6 months of the adverse health outcomes listed below:

Frequent hospitalisation (10%) Severe functional impairment (8%)

Number of questions answered with a YES

Falls Care and Bone Health

Patient presented with a fall - ensure the following actions:

Pt did not present with a fall

* Refer to falls clinic (referral form / sticker to front of ED record)

* Suggest long-term Calcium & Vitamin D treatment to GP (if not already)

References

- Schofield J et al. Screening for cognitive impairment in older people attending accident and emergency using the 4-item Abbreviated Mental Test. *Surj Emerg Med* 2010;11:240-2.
- Dendukuri N et al. The identification of seniors at risk screening tool: further evidence of concurrent and predictive validity. *Journal of the American Geriatrics Society* 2004;52:290-8.

This assessment was carried out by

Print Name _____ Signature _____ Position _____ Date _____ Time completed _____

Acute Medical Unit

Acute Frailty Pathway

Date DD/MM/YY

Time

Patient details

Full
name

DoB

Unit
number

(use sticker if available)

This pathway is to be used to highlight patients who might benefit from Comprehensive Geriatric Assessment (CGA).

Step 1 Inclusion criteria	<ul style="list-style-type: none"><input type="checkbox"/> Aged 85+<input type="checkbox"/> OR aged 70+ AND 1 or more of the following<ul style="list-style-type: none"><input type="checkbox"/> Patients from residential or nursing homes<input type="checkbox"/> Patients with delirium or dementia (check AMT-4)<input type="checkbox"/> Patients with fragility fracture not requiring surgery
Step 2 Streaming	<ul style="list-style-type: none">• If you think that your patient has a good chance of going home in the next 24 hours, please refer to the Emergency Frailty Unit (EFU)• If not, or no EFU beds available, please refer to Acute Frailty Unit (AFU) on level 5• If very sick consider Acute Care Bay (ACB) – contact the medical registrar on call
Special notes	<ul style="list-style-type: none">• Patients with fractures need to have fracture clinic referral completed in ED and initial fracture management in place prior to transfer to AMU/AFU

Outcomes: ED 85+

Age and Ageing Advance Access published July 23, 2013

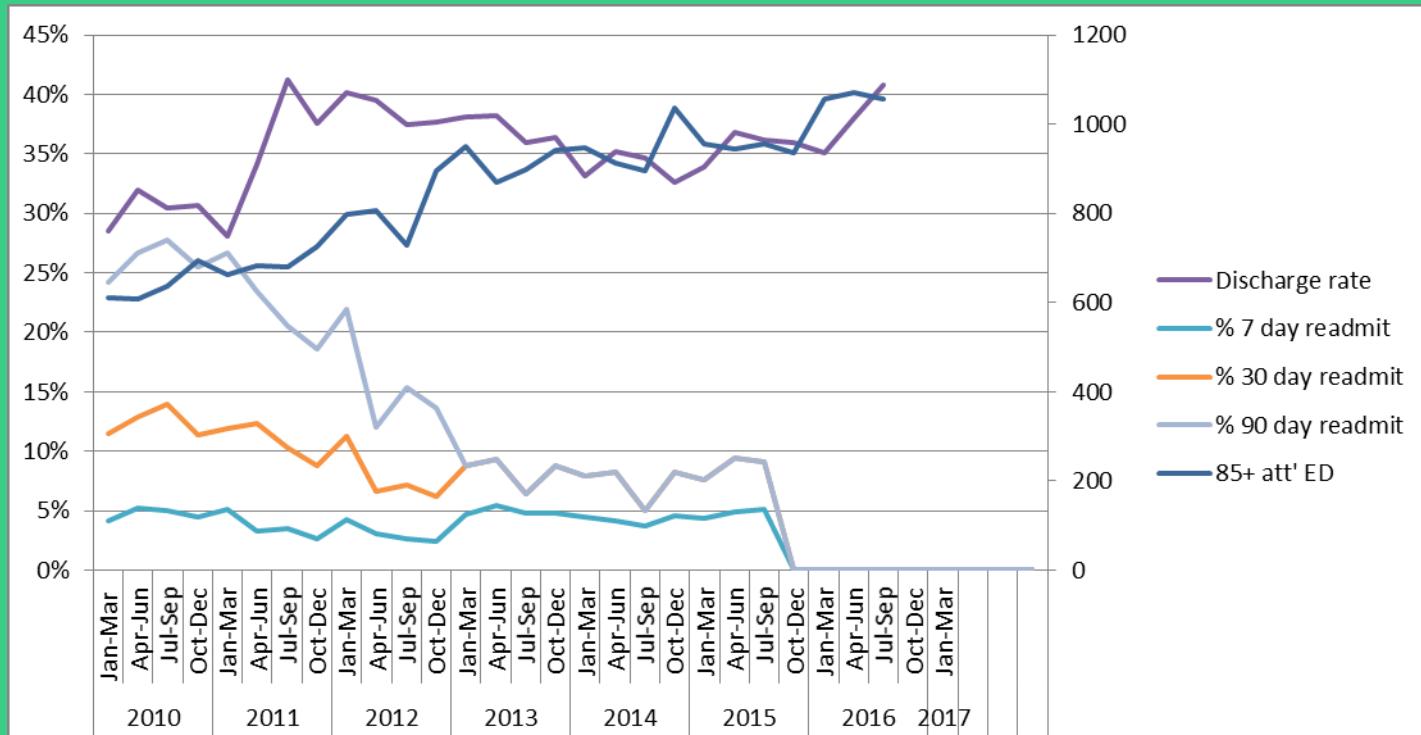
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A controlled evaluation of comprehensive geriatric assessment in the emergency department: the 'Emergency Frailty Unit'

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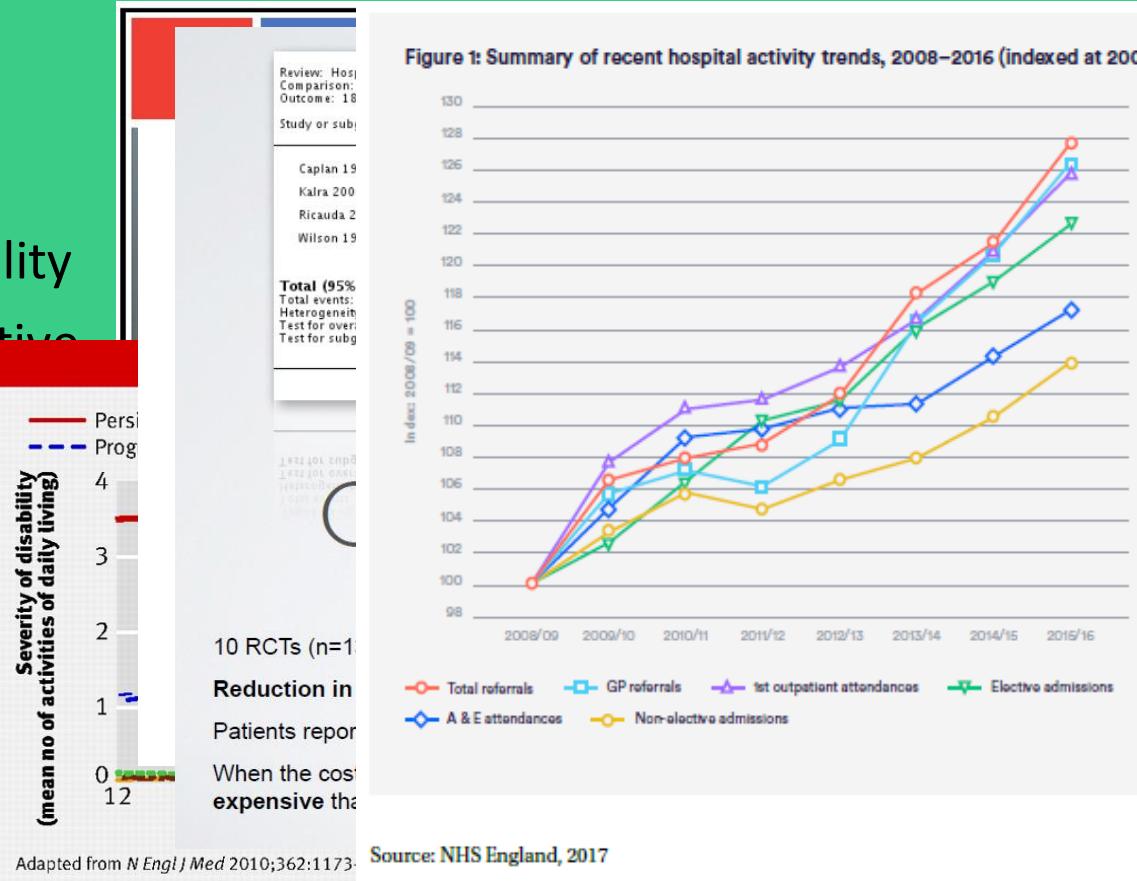


Getting good at GEM

- Why is this important?
 - Older people will continue to access EDs
 - Initial assessment and management critical
- What?
 - Deconstruct and reconstruct CGA
 - Emergency physicians not traditionally trained in CGA – BUT they are generalists and take pride in the care that they offer
 - Growing interest from other disciplines – therapy, pharmacy, nursing
- How?
 - Shared leadership, training and networked support
- What's in it for you?
 - Better care for your patients & nice new friends!

Why GEM?

- Demography
- Absence of immortality
- Limitations of proactive care
- Limitations of admissions avoidance
- Reality



Adapted from *N Engl J Med* 2010;362:1173.

Frailty...

Distinctive late-life health state in which apparently minor stressor events are associated with adverse health outcomes.

Independent predictor:

- Falls
- Delirium
- Disability
- Hospitalisation
- Care home admission

What (is GEM)?

- What is CGA?

Comprehensive Geriatric Assessment

“A multidimensional, interdisciplinary diagnostic process to determine the medical, psychological, and functional capabilities of a frail older person in order to develop a coordinated and integrated plan for treatment and long-term follow-up.”



A bit of detail...

Multidimensional:

- Not just troponin pathways for chest pain

Interdisciplinary diagnostic process:

- Flattened hierarchy, mutual respect, constructive challenge
- Iterative process

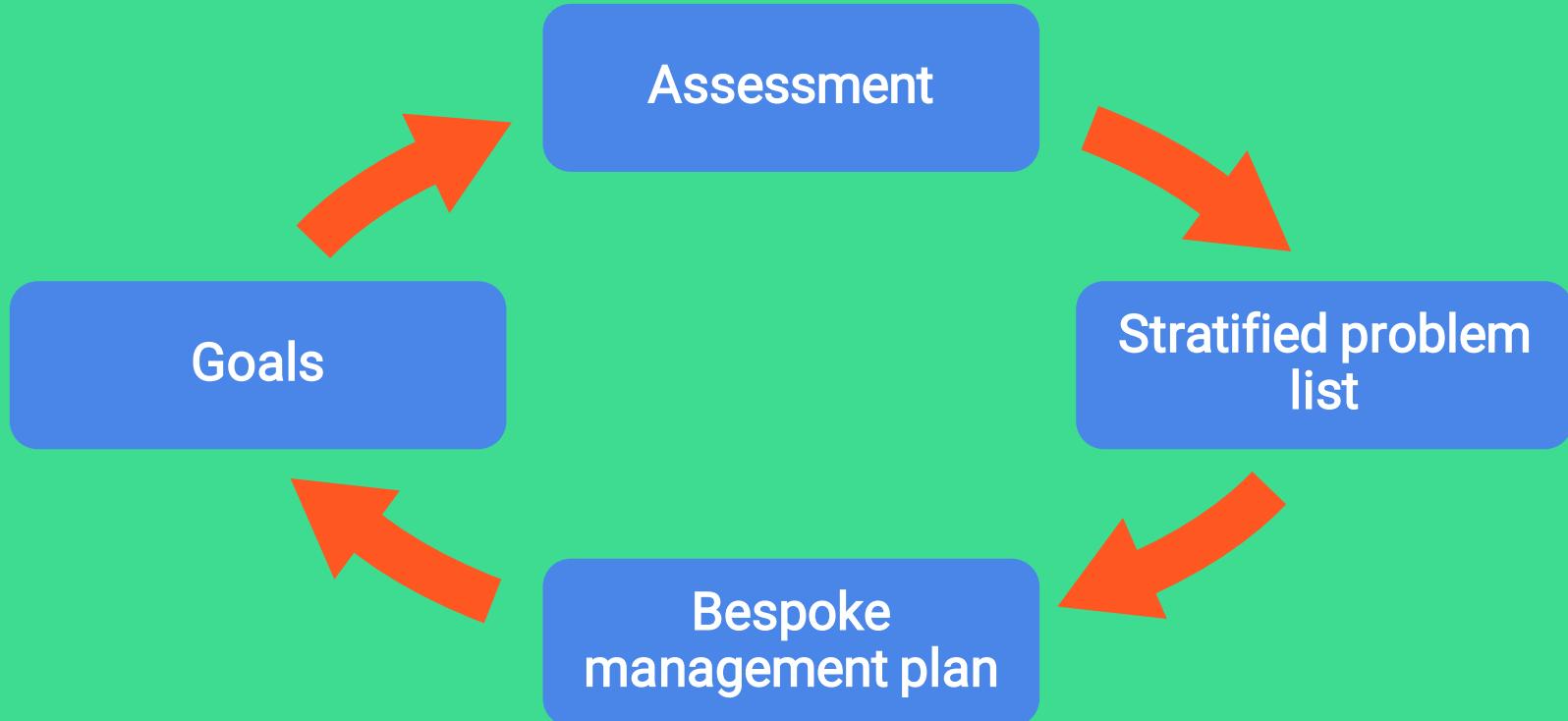
Coordinated and integrated plan for treatment:

- Some understanding of each other's roles and expertise

Follow-up:

- Because bad things will happen

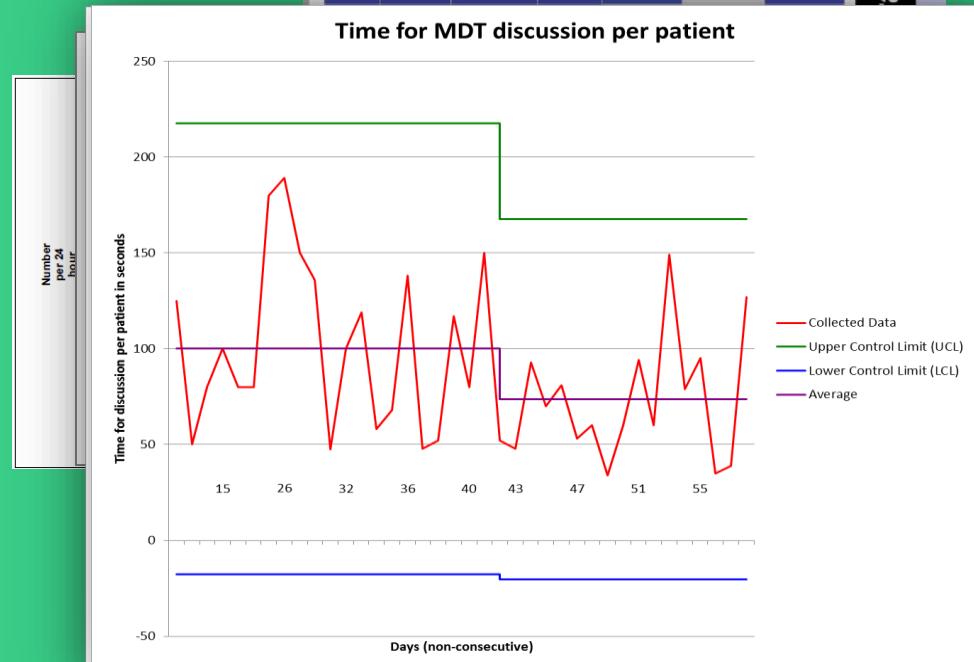
A bit of detail...



CGA as a process of care

- Geriatric competencies can be taught & measured
- MDTs can happen in the ED
- Patient outcomes can be measured (older people can go home safely from the ED)

CFS Grade	Length of Stay	Readmission Rate	Inpatient Mortality	Intervention 1	Intervention 2	Intervention 3
1	4	4%	2%			
2	5	7%	2%			
3	7	11%	2%			
4	8	13%	3%			
5	10	15%	4%			



Practical CGA in Urgent Care

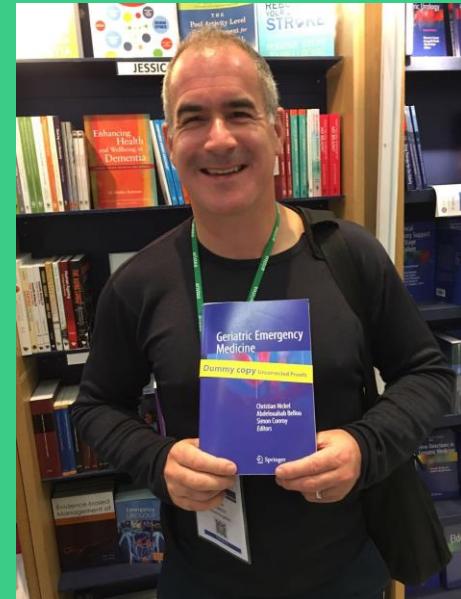
1. Identify frailty
2. Broaden the assessment
3. Do something different:
 - a. All patients – *communicate & coordinate a stratified problem list, follow-up & case manage*
 - b. Admitted patients – *frailty unit/service*
 - c. Ambulatory patients – *Emergency Frailty Unit (<24 hours), or home with community support/falls service/intermediate care etc.*

GEM fellowships

- Geriatric medicine competencies
 - Delirium vs dementia
 - Asymptomatic bacturia
 - Falls assessment
 - Medication reviews
 - Rehabilitation
 - Managing long term conditions
 - Palliation
- Emergency medicine competencies
 - Assessing undifferentiated patients
 - Trauma
 - Resuscitation
 - Situational awareness
 - Rapid assessment
 - Risk assessment

GEM teaching

- LeicGEM
- GEMcon
- <https://em3.org.uk/leicgem/#leicgem2017>
- GEM curriculum > RCEM
- GEM book



Frail friendly design



Caring at its best

Designing the UK's first older friendly Emergency Department

Banerjee J, Department of Emergency Medicine, UHL NHS Trust

BACKGROUND

The ED is a crucial interface between hospital and community and health and social care where older people with medical and social crisis present.

EDs need to be supported to deliver optimal care and the build, resources and processes need to be "frailty-friendly".

This is the experience of a large University teaching hospital that is in the process of building the UK's first ED that incorporates design principles to improve care of older people.

Currently >20% of the attendances in this ED are in people >65 years age. The emergency department does not have the capacity for the workload and there was a health community plan to build a new department that was frailty friendly.

METHODOLOGY

The process for incorporating geriatric design had three objectives:

- To ensure that the geriatric and frailty specific elements of the Design Brief for the new ED were fully explored, and the requirements incorporated at the appropriate time
- Three sessions were held; for topical discussion related to the development of the 1:200, departmental layouts, 1:50 room layouts and the interior finishes scheme
- A specialist review group was assembled to review the design at key stages. Partners included doctors and nurses (emergency medicine, acute medicine and geriatrics), allied health services, imaging, architects, representatives from local older people's and visual impairment charities.

RESULTS

Significant changes were made to the design brief based on the empirical literature, expert advice and experiential knowledge amongst the team members:

- Specialist room design affected furniture, bedding and specialist sanitary and patient entertainment equipment.
- Interior finishes including ceiling, floor, door, fixtures, lighting, signage and wall were altered.
- The "front-door" would also include adjacencies, emergency frailty units, imaging and point-of-care testing with access to all therapy services.
- There would be open access for carers and families at all times.
- Greater emphasis on multidisciplinary teams and integrated workforce also emerged from this collaboration.

DISCUSSION

Older people represent the most important "customers" of future emergency care and the need to improve emergency and acute care is well articulated in the empirical literature. This venture represents the hospitals' and ED's plans to "future-proof" provision in the face of growing demand for older peoples services.

Quality in healthcare, simply stated, depends on the right provision of structures and processes that address the outcomes that matter to patients. Structures include environment and physical build that not only affect staff working and processes but also directly impact on the safety and quality in care. The new build has started and is due to be completed in winter 2016.



REFERENCES

Oliver D, Foot C, Humphries R. Making our health and care systems fit for an ageing population. Kings Fund, 2014.

http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/making-health-care-systems-fit-ageing-population-oliver-foot-humphries-mar14.pdf

Banerjee J, Conroy S, Cooke MW. Quality care for older people with urgent and emergency care needs in UK emergency departments. Emerg Med J. 2013 Sep;30(9):699-700. doi: 10.1136/emermed-2012-202080. Epub 2012 Dec 18.

How GEM?

- Shared leadership
- Training
 - Leadership
 - Evidence
- Networked support
- Scale and pace...

Trial	Population	Intervention	PC	MD	ID	CIP	RI	ED	CM	Count of components	Readmission	Admission	Activities of Daily Living	Admission to Long Term Care	Mortality
			CGA components, key: + evident; ? not clear; - absent												
Miller 1996 ³¹	65+	Geriatric case finding and liaison service involving gerontological nurse specialist and ED staff	+	+	?	?	?	+	?	3	3m ↗	N/A	N/A	↗	↗
Mc Cusker 2001 & 2003 ^{32,33}	65+, ISAR ≥2, for discharge	Gerontological nurse specialist, consultation with ED and geriatric medical staff	+	+	+	?	?	NA	+	4	30d ↑	N/A	4m ↓	N/A	N/A
Mion 2003 ³⁴	65+, for discharge	Gerontological nurse specialist, consultation with ED staff	+	+	+	+	+	NA	?	5	30d ↗ 120d ↗	N/A	N/A	30d ↓ 120d ↗	30d ↗
Caplan 2004 ³⁵	75+, for discharge	Gerontological nurse specialist, consultation with geriatric medical staff	+	+	+	+	?	NA	+	5	30d ↓ 18m ↓	N/A	6m ↓	↗	↗
Basic 2005 ³⁶	65+ with geriatric syndrome	Gerontological nurse specialist	+	?	?	?	?	+	-	2	N/A	→	During HOS ↗	N/A	N/A
Foo 2012 ³⁷	65+, living at home	Emergency nurse trained in geriatric care, consultation with ED physician or gerontological nurse specialist	+	+	+	+	+	+	-	6	3m ↓ 6m ↓ 9m ↓ 12m ↓	N/A	N/A	N/A	→
Arendts 2012 & 2013 ^{38,39}	65+ with geriatric syndrome	Allied health personal, consultation with other specialists when required	+	?	?	-	?	?	-					28d ↓	28d ↗ 1y ↗
Wright	70+ with geriatric syndrome														N/A



Acute Frailty Network

The Acute Frailty Network – supporting people with frailty and urgent care needs to get home sooner and healthier



Royal College
of Nursing



Royal College
of Physicians



AFN principles



1. Establish a mechanism for early identification of people with frailty
2. Put in place a multi-disciplinary response that initiates Comprehensive Geriatric Assessment (CGA) within the first hour
3. Set up a rapid response system for frail older people in urgent care settings
4. Adopt clinical professional standards to reduce unnecessary variation
5. Develop a measurement mind-set
6. Strengthen links with services both inside and outside hospital
7. Put in place appropriate education and training for ALL staff
8. Identify clinical change champions
9. Patient and public involvement
10. Identify an executive sponsor and underpin with a robust project management structure

What's in it for you?

- Better care for your patients
- Opportunity for self-improvement & development
- Happier staff
- Reduced strain on the system
- Lots of research and improvement opportunities
- Lots of education and training opportunities
- New friends – ED will love you!

Summary

- GEM an important concept with lots of opportunities
- CGA improve outcomes for older people with frailty and urgent care needs
- Use CGA as an organising framework
- Don't neglect the specific underpinning competencies
- Measure, iterate and improve

GEM resources in Europe

- #LeicGEM: <https://em3.org.uk/leicgem/#leicgem2017>; @LeicGEM; leicgem@em3.org.uk
- #geriEM EUGMS Geriatric Emergency Medicine Special Interest Group: www.geriEMEurope.eu; @geriEMEurope; info@geriEMEurope.eu
- #LeidenGEMCon; @LeidenGEMcon