

Prevention is better than cure



By Hans Holbein the Younger - Web Gallery of Art:

Michael Azad

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British Geriatrics Society England Council Chair

BGS Co-Chair Frailty in urgent care settings SIG

Some numbers...

- By 2031
 - 66% increase in over 65s
 - 77% increase in over 75s
 - 131% increase in over 85s
- More people >65 than <18
- In next 20 years those >100 will quadruple
- 8% of the population >75 years old, but account for 30% of emergency admissions
- >65 year olds account for 40% of hospital bed days
- 65% of NHS spend on those >65 years old
- 60% of social care spend on those >65 years old

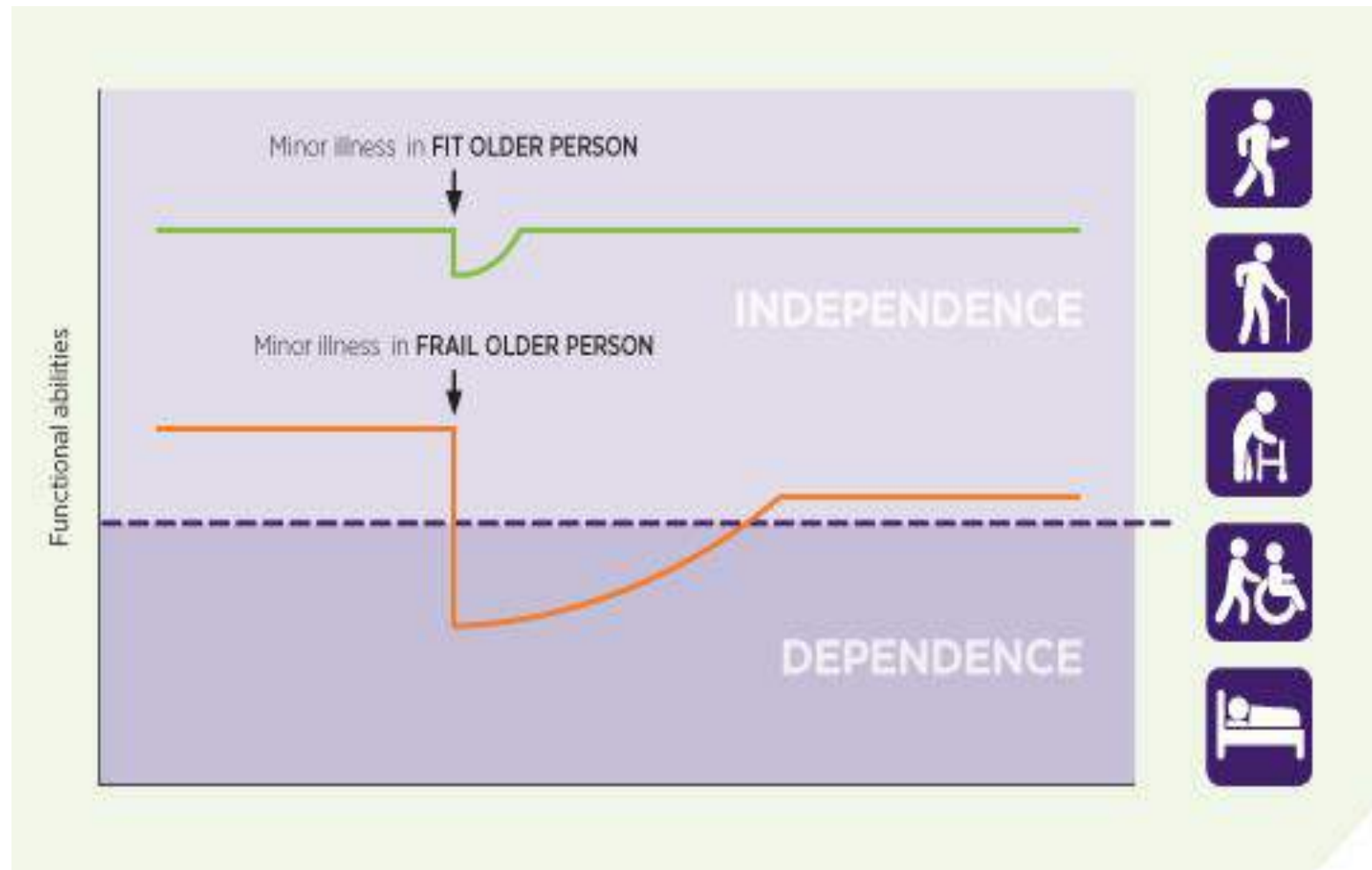
Frailty definition

“a medical syndrome with multiple causes and contributors that is characterised by diminished strength, endurance and reduced physiologic function that increases an individual’s vulnerability for developing increased dependency and/or death”

Morley J et al. Frailty consensus: a call to action. Journal of American medical directors association. 2013

What does this mean for someone with frailty?

- Increased susceptibility to minor stressor event and reduced physiological reserve



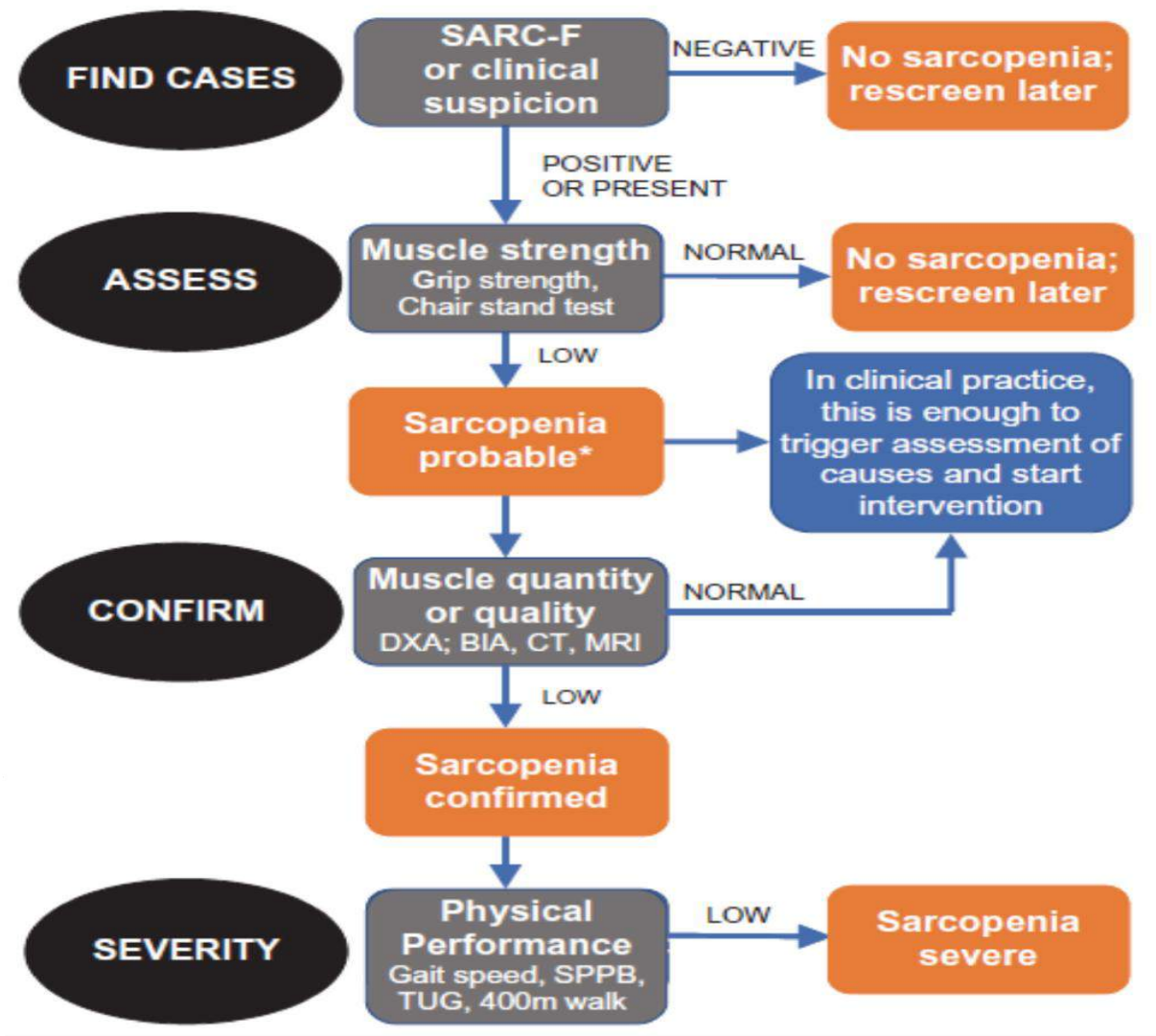


Figure. EWGSOP2 algorithm for case-finding, making a diagnosis and quantifying severity of sarcopenia in practice.

*Consider other reasons for low muscle strength (e.g. depression, stroke, balance disorders, peripheral vascular disorders).

Reproduced by permission from Cruz-Jentoft AJ, et al. Sarcopenia: revised European consensus on definition and diagnosis. Age Ageing 2019;48:16-31.

Component	Question	Scoring
Strength	How much difficulty do you have in lifting and carrying 10 pounds ($\approx 4,5$ Kg, ndr)?	None = 0 Some = 1 A lot or unable = 2
Assistance in walking	How much difficulty do you have walking across a room?	None = 0 Some = 1 A lot, use aids, or unable = 2
Rise from a chair	How much difficulty do you have transferring from a chair or bed?	None = 0 Some = 1 A lot or unable without help = 2
Climb stairs	How much difficulty do you have climbing a flight of 10 stairs?	None = 0 Some = 1 A lot or unable = 2
Falls	How many times have you fallen in the past year?	None = 0 1 - 3 falls = 1 4 or more falls = 2

Frailty outcomes

Table 6. Incidence of Adverse Outcomes Associated With Frailty: Kaplan-Meier Estimates at 3 Years and 7 Years* After Study Entry for Both of the Cohorts† (N = 5317)






Frailty Status at Baseline	(n)	Died		First Hospitalization		First Fall		Worsening ADL Disability		Worsening Mobility Disability	
		3 yr %	7 yr %	3 yr %	7 yr %	3 yr %	7 yr %	3 yr %	7 yr %	3 yr %	7 yr %
Not Frail	(2469)	3	12	33	79	15	27	8	23	23	41
Intermediate	(2480)	7	23	43	83	19	33	20	41	40	58
Frail	(368)	18	43	59	96	28	41	39	63	51	71
<i>p</i> ‡		<.0001		<.0001		<.0001		<.0001		<.0001	





*7-year estimates are only available for the first cohort.

†Only those evaluable for frailty are included.

‡*p* value is based on the 2 degree of freedom log rank test using all available follow-up.

CLINICAL FRAILITY SCALE (2020 update)

	1	VERY FIT People who are robust, active, energetic and motivated. They tend to exercise regularly and are among the fittest for their age
	2	FIT People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally , e.g. seasonally
	3	MANAGING WELL People whose medical problems are well controlled , even if occasionally symptomatic, but often are not regularly active beyond routine walking.
	4	LIVING WITH VERY MILD FRAILITY Previously “vulnerable”, this category marks early transition from complete independence. While not dependent on others for daily help, often symptoms limit activities . A common complaint is being “slowed up” and/or being tired during the day
	5	LIVING WITH MILD FRAILITY People who often have more evident slowing , and need help with high order instrumental activities of daily living (finances, transportation, heavy housework). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation, medications and begins to restrict light housework

	6	LIVING WITH MODERATE FRAILITY People who need help with all outside activities and with keeping house . Inside, they often have problems with stairs and need help with bathing and might need minimal assistance (cuing, standing) with dressing.
	7	LIVING WITH SEVERE FRAILITY Completely dependent for personal care , from whatever cause (physical or cognitive), Even so, they seem stable and not at high risk of dying (within ~6 months).
	8	LIVING WITH VERY SEVERE FRAILITY Completely dependent for personal care and approaching end of life. Typically, they could not recover even from a minor illness.
	9	TERMINALLY ILL Approaching the end of like. This category applies to people with a life expectancy <6 months . Who are not otherwise living with severe frailty . (Many terminally ill people can still exercise until very close to death.

SCORING FRAILITY IN PEOPLE WITH DEMENTIA

The degree of frailty generally corresponds to the degree of dementia. Common symptoms in mid dementia include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal

In moderate dementia, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.

In severe dementia, they cannot do personal care without help.

In very severe dementia they are often bedfast. Many are virtually mute.

REACT TO FRAILITY

Understand, identify and manage
frailty

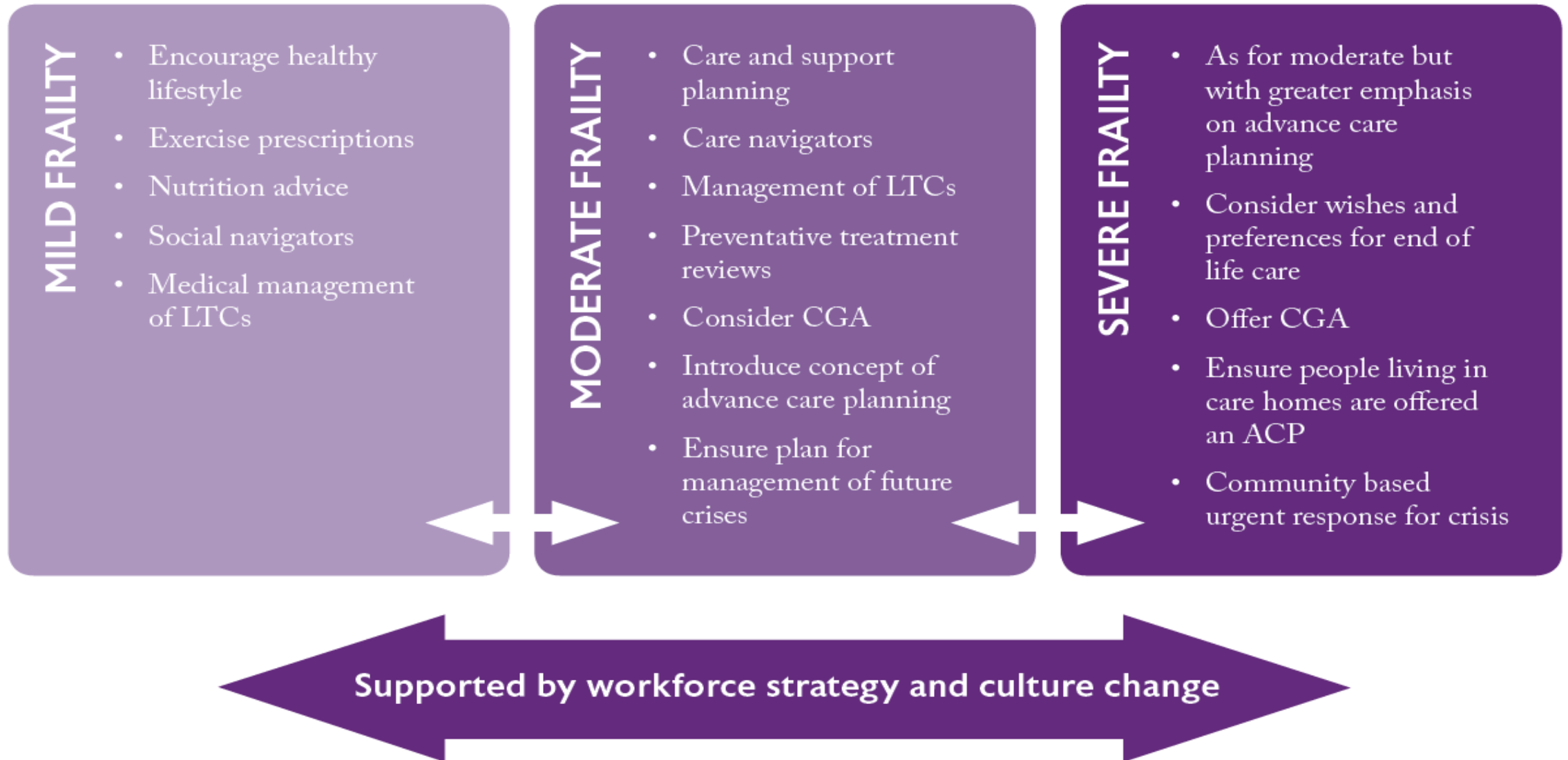


BEFORE YOU START

You can find the resources below, however if you require a certificate as proof of completion [click here to register](#).

React To Frailty has been designed by the Nottingham & Nottinghamshire ICS Frailty Group for all health and social care colleagues across the ICS. React To Frailty has been designed as a resource pack with two accompanying videos which explain how to use the Clinical Frailty Scale to identify different levels of frailty, and to improve awareness and understanding of what frailty means and how it can be managed. These films and resources were designed and produced by Crocodile House.

We have set out an outline of the approach we support



RESEARCH PAPER

Building resilience and reversing frailty: a randomised controlled trial of a primary care intervention for older adults

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Abstract

Background: There is a need for effective primary care interventions that help older people combat frailty and build resilience.

Objective: To study the effectiveness of an optimised exercise and dietary protein intervention.

Design: Multicentre, randomised-controlled, parallel-arm trial.

Setting: Six primary care practices, Ireland.

Methods: Six general practitioners enrolled adults aged 65+ with Clinical Frailty Scale score ≤5 from December 2020 to May 2021. Participants were randomised to intervention or usual care with allocation concealed until enrolment. Intervention comprised a 3-month home-based exercise regime, emphasising strength, and dietary protein guidance (1.2 g/kg/day). Effectiveness was measured by comparing frailty levels, based on the SHARE-Frailty Instrument, on an intention-to-treat basis. Secondary outcomes included bone mass, muscle mass and biological age measured by bioelectrical impedance analysis. Ease of intervention and perceived health benefit were measured on Likert scales.

Results: Of the 359 adults screened, 197 were eligible and 168 enrolled; 156 (92.9%) attended follow-up (mean age 77.1; 67.3% women; 79 intervention, 77 control). At baseline, 17.7% of intervention and 16.9% of control participants were frail by SHARE-FI. At follow-up, 6.3 and 18.2% were frail, respectively. The odds ratio of being frail between intervention and control groups post-intervention was 0.23 (95% confidence interval: 0.07–0.72; $P = 0.011$), adjusting for age, gender and site. Absolute risk reduction was 11.9% (CI: 0.8%–22.9%). Number needed to treat was 8.4. Grip strength ($P < 0.001$) and bone mass ($P = 0.040$) improved significantly. 66.2% found the intervention easy, 69.0% reported feeling better.

Conclusion: A combination of exercises and dietary protein significantly reduced frailty and improved self-reported health.

Research

John Travers, Roman Romero-Ortuno, Jade Bailey and Marie-Therese Cooney

Delaying and reversing frailty: a systematic review of primary care interventions

Abstract

Background

Recommendations for routine frailty screening in general practice are increasing as frailty prevalence grows. In England, frailty identification became a contractual requirement in 2017. However, there is little guidance on the most effective and practical interventions once frailty has been identified.

Aim

To assess the comparative effectiveness and ease of implementation of frailty interventions in primary care.

Design and setting

A systematic review of frailty interventions in primary care.

Method

Scientific databases were searched from inception to May 2017 for randomised controlled trials or cohort studies with control groups on primary care frailty interventions. Screening methods, interventions, and outcomes were analysed in included studies. Effectiveness was scored in terms of change of frailty status or frailty indicators and ease of implementation in terms of human resources, marginal costs, and time requirements.

Results

A total of 925 studies satisfied search criteria and 46 were included. There were 15 690 participants (median study size was 140 participants). Studies reflected a broad heterogeneity. There were 17 different frailty screening methods. Of the frailty interventions, 23 involved physical activity and other interventions involved health education, nutrition supplementation, home visits, hormone supplementation, and counselling. A significant improvement of frailty status was demonstrated in 71% ($n = 10$) of studies and of frailty indicators in 69% ($n = 22$) of studies where measured. Interventions with both muscle strength training and protein supplementation were consistently placed highest for effectiveness and ease of implementation.

Conclusion

A combination of muscle strength training and protein supplementation was the most effective intervention to delay or reverse frailty and the easiest to implement in primary care. A map of interventions was created that can be used to inform choices for managing frailty.

INTRODUCTION

Frailty has long been in the lexicon of everyday language. 'How easily the wind overturns a frail tree', Buddha reflected some 2500 years ago.¹ From such historic prevalence has come an inherited instinct for recognising frailty. However, it is only in recent years that frailty has come into focus for more rigorous medical definition in a shift of emphasis from single-system conditions to unifying constructs for holistic patient care.

Frailty can be described as a state of physiological vulnerability with diminished capacity to manage external stressors.^{2,3} It increases the risks of illness, falls, dependency, disability, and death.^{2,3}

Frailty is becoming a more common challenge as populations age and life expectancy lengthens. The prevalence of frailty is estimated at 10.7% in adults aged ≥65 years and increases to some 50% in those >80 years of age.⁴ The United Nations estimates that the world population of individuals aged >60 years will more than double from 962 million in 2017 to 2.1 billion in 2050, whereas the population of individuals aged >80 years will triple from 137 million to 425 million in the same period.⁵ In the UK, the number of individuals aged >65 years is estimated to grow from 10.4 million to 12.4 million by 2025 and life expectancy at 65 years is set to increase by 1.7 years.⁶

Frailty has been described as the most problematic expression of population ageing in the context of this considerable growth.³ It has forced fundamental changes in national health policies. For example, since 2017 the new General Medical Services (GMS) contract in England mandates that all primary care practices use an appropriate tool to identify patients aged ≥65 years who are living with moderate or severe frailty. For patients living with severe frailty, the practice must undertake a clinical review, provide an annual medication review, discuss whether the patient has fallen in the last 12 months, activate an enriched Summary Care Record at the patient's request (if not already in place), and provide any other clinically relevant interventions.⁷

A variety of tools has been proposed for frailty screening in primary care.^{8,9} A commonly used method is Fried's frailty phenotype¹⁰ (three or more criteria from: exhaustion, unexplained weight loss, slowness, weakness, and low physical activity, with one or two criteria present defining pre-frailty). The cumulative deficit model proposed by Rockwood and Mitnitski¹¹ provides a frailty index based on the presence of deficits as a proportion of total measured. There are several other indices, checklists, and indicators.^{12–14} A general model of frailty that captures commonly involved domains is shown in Figure 1.

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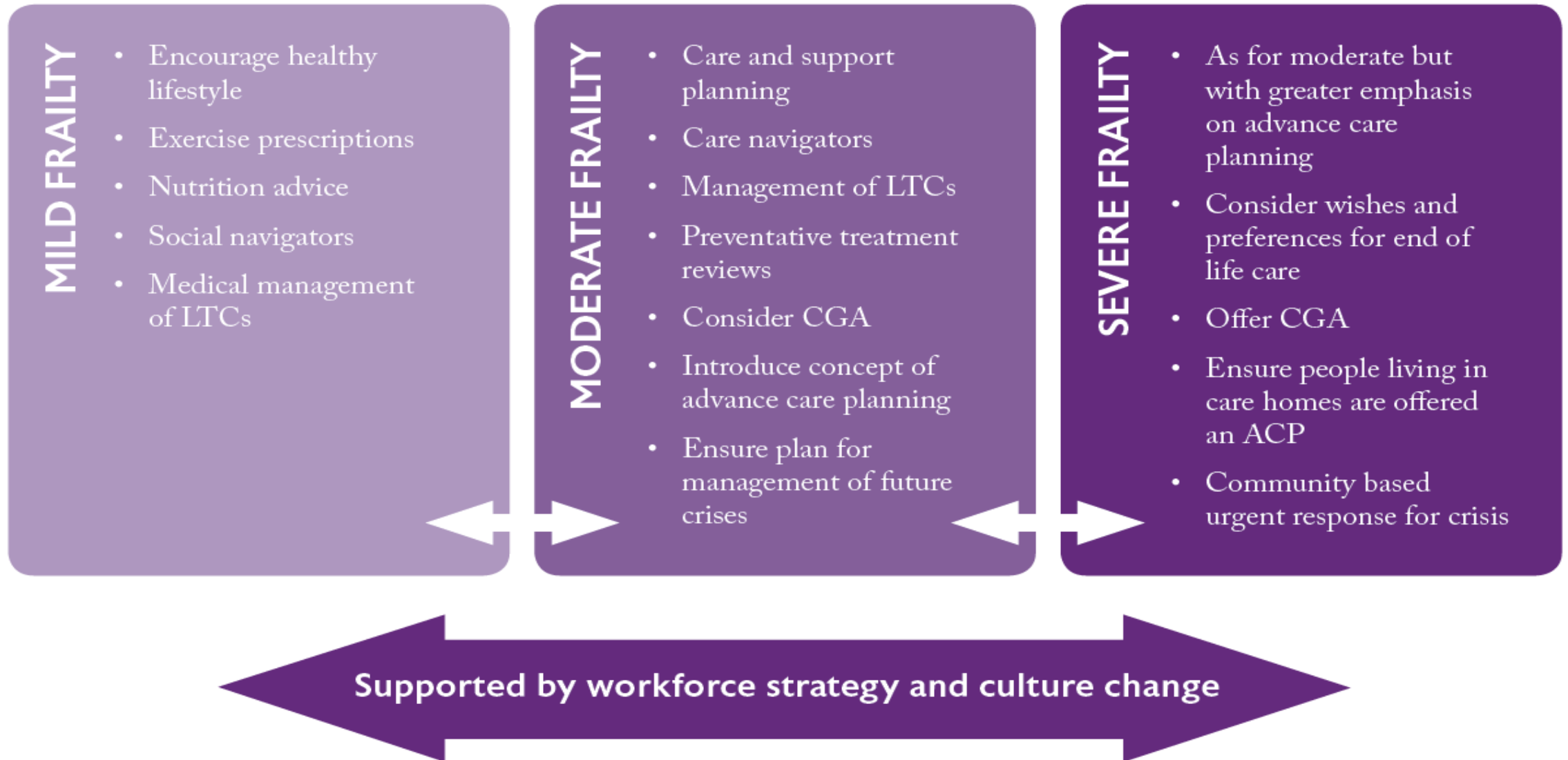
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Prevention

- Loneliness and isolation
 - Group/one-one/volunteering activities
 - Befriending initiatives
 - Intergenerational activities
- Falls and fractures
 - Strength and balance training (low to moderate risk)
 - Multifactorial interventions (high risk)
 - Fracture liaison services

We have set out an outline of the approach we support



Comprehensive Geriatric Assessment (CGA)

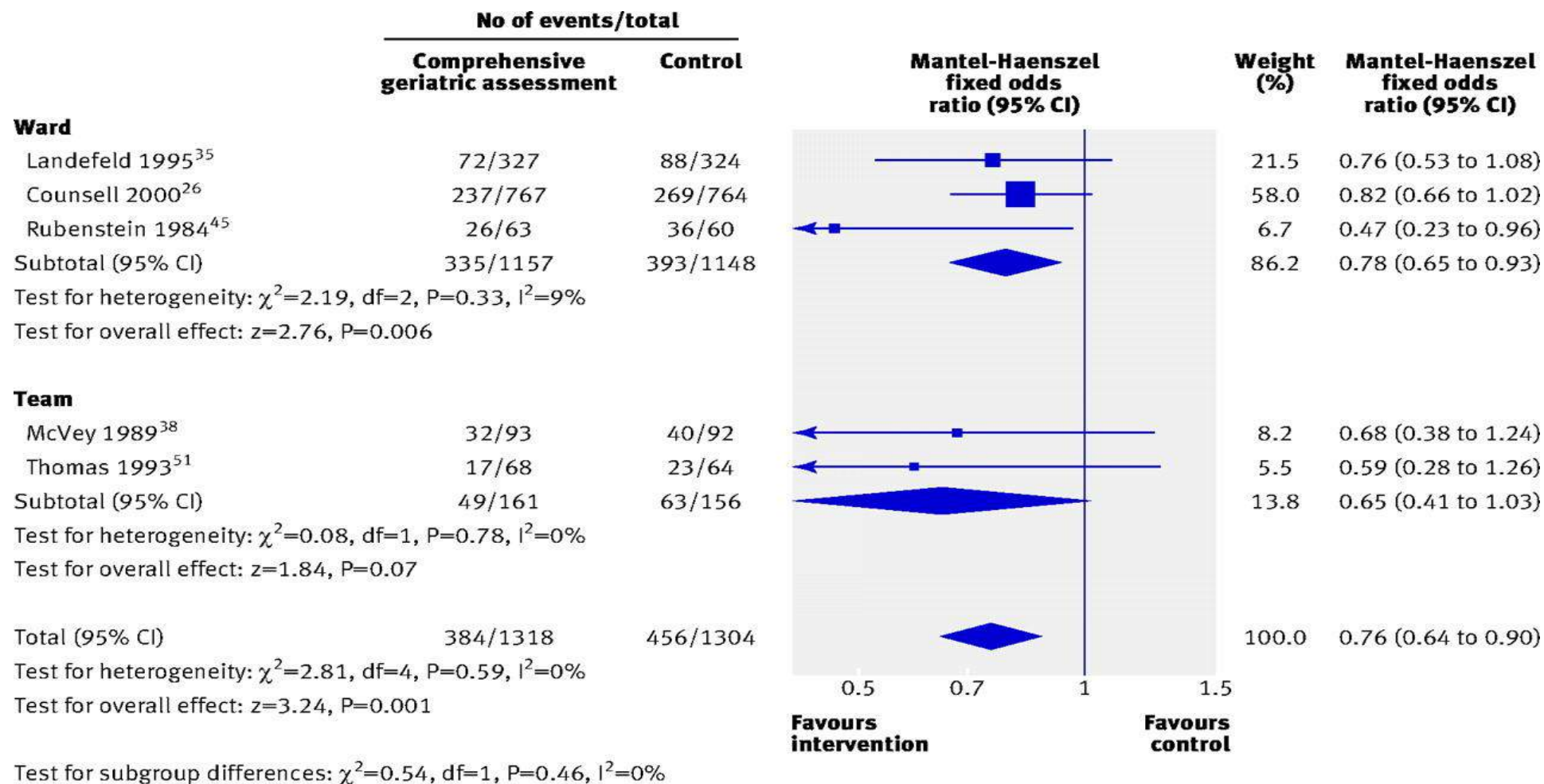
“a multi-dimensional, interdisciplinary, diagnostic process to determine the medical, psychological and functional capabilities of a frail older person in order to develop a coordinated and integrated plan for treatment and long term follow up”

Stuck et al Lancet 1994

- **Medical**
 - comorbid conditions and disease severity
 - medication review
 - nutritional status
 - problem list
- **Mental health**
 - cognition
 - mood and anxiety
 - fears
- **Functional capacity**
 - basic activities of daily living
 - gait and balance
 - activity/exercise status
 - instrumental activities of daily living
- **Social circumstances**
 - informal support available from family or friends
 - social network such a visitors or daytime activities
 - eligibility for being offered care resources
- **Environment**
 - home comfort, facilities and safety
 - use or potential use of telehealth technology etc
 - transport facilities
 - accessibility to local resources

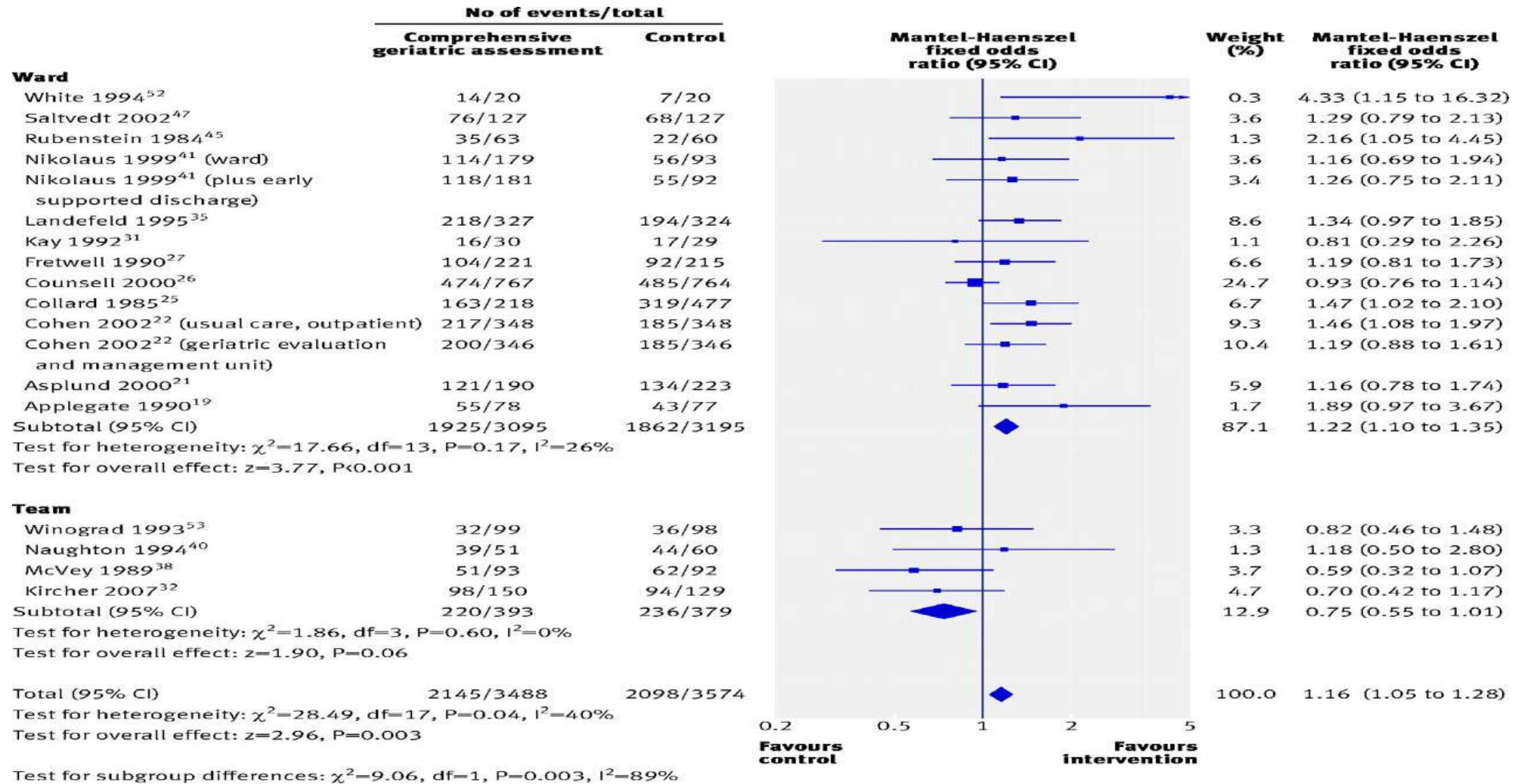


Fig 3 Odds ratios for death or deterioration at the end of follow-up (median 12 months) in elderly patients according to comprehensive geriatric assessment after emergency admission at baseline.



Ellis G et al. BMJ 2011;343:bmj.d6553

Fig 2 Odds ratios for living at home at end of follow-up (median 12 months) in elderly patients according to comprehensive geriatric assessment after emergency admission.



Ellis G et al. BMJ 2011;343:bmj.d6553

Frailty management

- CGA
- CGA
- CGA
- Exercise
 - Resistance and aerobic; strength and balance; >3 months
- Nutritional supplementation
 - Protein-calorie supplementation, ?1.2g/kg/day protein
 - Synergistic with exercise
- Vitamin D
 - Correct if deficient

Cadore E et al. Effects of different exercise interventions on risk of falls, gait ability and balance in physically frail older adults: a systematic review. Rejuvenation Research. 2013.

Theou O et al. The effectiveness of exercise interventions for the management of frailty: a systematic review. Journal of Aging Research. 2011.

Chou C et al. Effect of exercise on physical function, daily living activities and quality of life in the frail older adults: a meta-analysis. Arch Phys Med Rehabil. 2012

Clegg et al. The home-based older people's exercise (HOPE) trial: a pilot RCT of a home-based exercise intervention for older people with frailty. Age and Ageing. 2014.

Morley J et al. Nutritional recommendations for the management of sarcopenia. Journal American Medical Directors Association. 2010.

Vitamin D and bone health: a practical clinical guideline for patient management. National Osteoporosis Society. 2013

Exercise

- Should be multicomponent
- Intensity and volume of exercise still needs further investigation
- Example of an exercise regime for resistance exercise might look like
 - 3 sets of 8-12 reps starting at 20% 1RM (Rep Max) increasing to 80% 1RM, 3 times a week for 12 weeks
- Aerobic exercise regime may follow high interval intensity training (HIIT) scheme 3-5 times a week
- Exercise seems to be more effective in the earlier stages of frailty compared to the later stages of frailty
- Exercise can improve sarcopenia, physical function, cognitive function, and mood

Cadore E et al. Effects of different exercise interventions on risk of falls, gait ability and balance in physically frail older adults: a systematic review. Rejuvenation Research. 2013.

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TheKingsFund>

Ideas that change health care

Making our health and care systems fit for an ageing population

Authors
 David Oliver
 Catherine Foot
 Richard Humphries

Proactive care - the ambition...

- People will have choice and control over the way their care is planned and delivered.
- Based on 'what matters' to them and their individual strengths and needs.
- A one-size-fits-all health and care system simply cannot meet the increasing complexity of people's needs and expectations.
- It is a way to develop relationships between people, professionals and the health and care system.
- It provides a positive shift in power and decision making that enables people to have a voice, to be heard and be connected to each other and their communities.
- Evidence shows that people will have better experiences and improved health and wellbeing.

Figure 1: The care model is both a process and a cycle

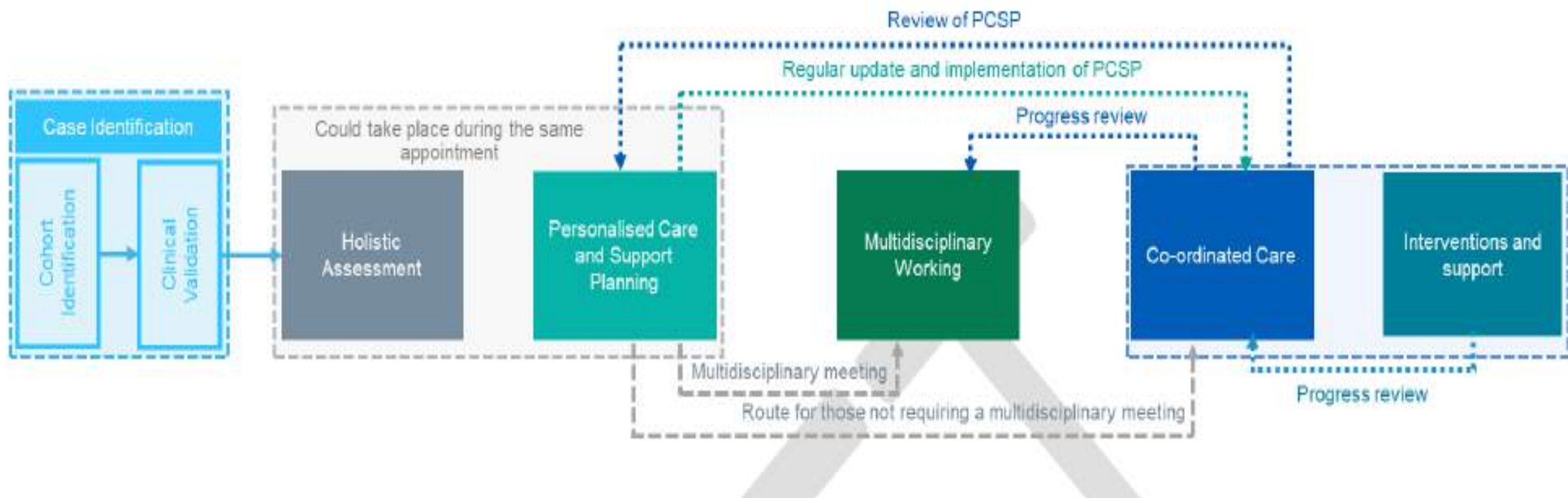


Table 1: Interventions grouped into three main areas

Living well	Targeted support
Understanding health better	Mental wellbeing, loneliness and isolation
Behaviours to improve health and wellbeing	Reducing the risk of falls and fractures
Enabling movement and physical activity	Support with cognitive and memory problems
Better diet, nutrition and healthy weight	Managing medications safely and effectively
General support	Continence support and avoiding urinary tract infections
Social prescribing	Addressing specific conditions, pain and symptoms
Regaining skills and function	Treatment and support for addictions
Support with issues related to housing	Palliative and end of life care



**REHAB
ON TRACK**

Community Rehabilitation Best Practice Standards

October 2022

Rehabilitation makes people's lives better. Many of those who would most benefit from rehabilitation, however, face barriers to accessing services. A panel of experts from across the UK developed these standards, to help change that.

Published by The Chartered Society of Physiotherapy
on behalf of the Community Rehabilitation Alliance

Community Rehabilitation Recommendations — Summary Standards

Recommendation	Patient	Clinician	Rehabilitation Lead	Network	Commissioner	Social Care Provider
1 Referral processes are explicit, easy, efficient and equitable	Knows how and when to get help, when in need of rehabilitation, either through GP or self-referral	Refers patients to the right services by using a rehabilitation directory of services	Provides a rehabilitation directory, and ensures equality of access and provision of services	Determines how referral pathways can best be distributed, and establishes information systems for social care	Ensures resources are appropriately focussed and inequalities of access are minimised by monitoring groups that are underserved	Refers patients using a rehabilitation directory, and supports people to navigate the rehabilitation pathways
2 Rehabilitation interventions are timely, co-ordinated and prevent avoidable disability	Gets seen by the right person at the right time, and knows who co-ordinates rehabilitation	Undertakes assessments, shares information across the network, and knows local resources	Recognises and manages care co-ordination, and delivers/monitors mandatory training	Develops referral systems, and ensures patients are seen in a timely, co-ordinated way	Ensures rehabilitation pathway is timely, efficient and effective for different patient groups	Receives and shares information about the co-ordinated care of patients
3 Rehabilitation interventions meet patients' needs and are delivered in appropriate formats	Knows they have the best rehabilitation option to suit them	Is trained to deliver evidence-based care and shares decision making with patients	Maps, develops and describes pathways for patients with different needs	Shares training resources and supports the implementation of best practice recommendations	Maps pathways, analyses local population needs, and designs community rehabilitation	Understands the rehabilitation options and supports patients in their decision making
4 Rehabilitation pathways should meet needs and be delivered locally with access to specialist services	Gets co-ordinated support for physical and mental health, and can access the equipment needed	Works with local services but refers to specialist services if needed to ensure the best outcomes	Ensures information can be shared and provides resources to be shared with patients	Ensures systems are integrated and care packages are joined up across the course of the disease	Commissions local and out-of-area services to meet patients' needs and optimise outcomes	Supports people to attend appointments and to obtain equipment
5 Rehabilitation programmes should enable optimisation, self-management and review	Has the information, equipment and support they need to look after their condition	Works independently with appropriate workload to support patients to maintain their independence	Manages staffing to deliver timely and effective rehabilitation	Develops supported self-management approaches and shares training resources	Commissions needs-led, integrated community rehabilitation services and flexible pathways	Supports patients to do the activities that are important and appropriate for them
6 Rehabilitation services are well led, adequately resourced and linked to other services	Helps record rehabilitation progress and goals, and can give feedback	Collects data including patient goals and service activity, and contributes to audits	Conducts audits and benchmarks services, and identifies service priorities	Helps design and develop services that address unmet needs, and enables sharing of information	Commissions the development of data collection and defines how success is evaluated	Supports patients to discuss their progress and to give feedback
7 Rehabilitation services involve families	Family members are made welcome and empowered as important parts of the rehabilitation process	Identifies patients relying on carers, and encourages families to take part and contribute to care	Develops pathways to support families and monitors their experience	Helps design services that meet the needs of families, friends and carers	Commissions services that support families of patients with disabling conditions	Keeps families informed about changes in function

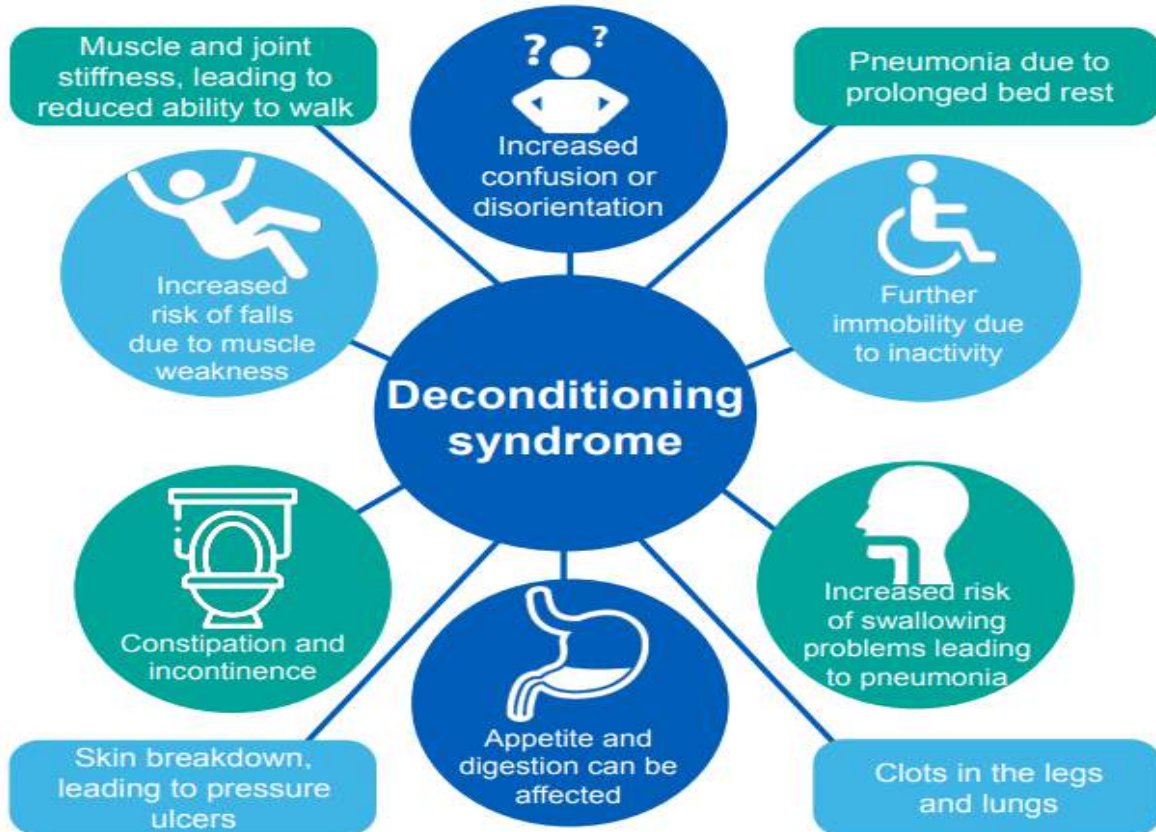
Sit Up

Get Dressed

Keep Moving



"Deconditioning syndrome is the condition of physical, psychological and functional decline that occurs as a result of a series of complex physiological changes induced by prolonged bed rest or inactivity. It is commonly experienced by older people in a hospital or care home setting. Though deconditioning can affect people of any age, the effect on older people may be more rapid, more severe, and often irreversible" - Dr Amit Arora



Preventing deconditioning and enabling independence for older people

Assess



A comprehensive assessment should be completed to determine usual capabilities



A risk assessment should be completed



Glasses, hearing aid, clock and calendar should be accessible

Support



Are there appropriate mobility aids available?
Ask: Is it the right size and reachable?



Walking to the toilet helps to prepare for going home.
Ask: Is the catheter really needed?



Sitting in a chair can help you.
Ask: Do you need help getting out of bed?

Encourage



Feed and take fluids independently



Wash and dress independently in own clothes



Keep arms and legs moving, even in bed or on a chair



Frailty

A framework of core capabilities

Education and training of workforce

- Frailty is everyone's business
- Frailty Core Capabilities Framework
 - Commissioned by Health Education England and NHS England
 - Aims to improve the effectiveness and capability of services for people living with frailty
 - Tier 1: Those that require general awareness of frailty
 - Tier 2: Health and social care staff and others who regularly work with people living with frailty but who would seek support from others for complex management or decision-making
 - Tier 3: Health, social care and other professionals with a high degree of autonomy, able to provide care in complex situations and who may also lead services for people living with frailty.

Table 1: Life expectancy and proportion of life in poor health, from birth and age 65 years, males and females, largest EU countries, 2016.

	Males				Females			
Country	Life expectancy at birth	Proportion (%) in poor health	Life expectancy at age 65	Proportion (%) in poor health	Life expectancy at birth	Proportion (%) in poor health	Life expectancy at age 65	Proportion (%) in poor health
France	79.5	6.4	19.6	16.3	85.7	8.1	23.7	18.6
Germany	78.6	6.4	18.1	14.4	83.5	7.8	21.3	18.3
United Kingdom	79.4	6.9	18.8	13.8	83.0	8.0	21.1	13.7
EU average	78.2	6.5	18.2	17.6	83.6	8.7	21.6	23.1

Note: Poor health is defined as the difference between life expectancy and healthy life expectancy.

Source: European Statistics (EUROSTAT). Healthy life years and life expectancy at age 65 by sex. 2018.

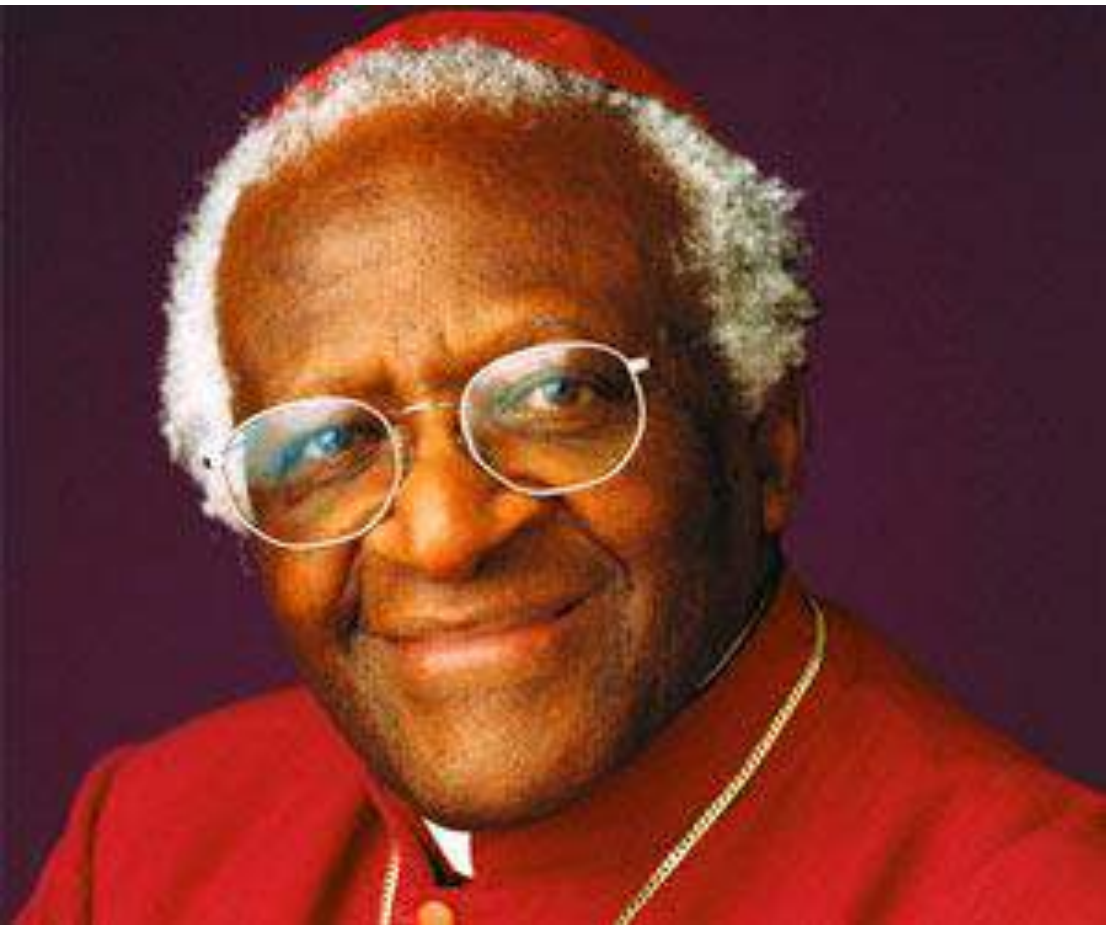




BGS

Frailty Hub

www.bgs.org.uk/frailtyhub



“There comes a point where we need to stop just pulling people out of the water.

We need to go upstream and find out why they’re falling in”