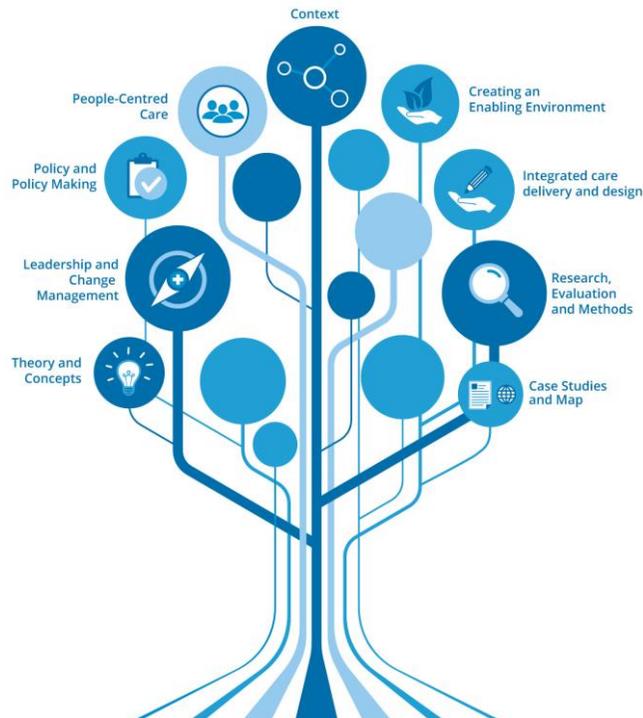


# Integrated Care Matters

## Preventing & Managing Frailty

### Knowledge Resource



## About the information

The information provided in this document is intended to support the Integrated Care Matters webinar series.

Where possible, we select evidence that is published open access, and provided links to the materials referenced. Some are identified as author repository copies, manuscripts, or other copies, which means the author has made a version of the otherwise paywalled publication available to the public. Other referenced sources are pdfs and websites that are available publicly.

If you found this resource useful and would like to use the free [Evidence Search and Summary Service \(ESSS\)](#) to help you find and use evidence please get in touch to discuss your needs: [esss@iriss.org.uk](mailto:esss@iriss.org.uk)

## Developed in partnership



## ADVANTAGE JA

ADVANTAGE JA. [ADVANTAGE: Managing Frailty](#) (website)

ADVANTAGE JA provides a common approach to models of care to face the challenge of frailty in a common European framework.

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Hendry, A. et al. (2018). [Integrated Care: A Collaborative ADVANTAGE for Frailty](#). Int J Integr Care. 2018 Apr-Jun; 18(2): 1 (open access)

This paper describes work by ADVANTAGE to develop a common European approach to the prevention and management of frailty.

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Hendry, A. et al. (2019). [Integrated Care Models for Managing and Preventing Frailty: A Systematic Review for the European Joint Action on Frailty Prevention](#). Translational Medicine @ Unisa, 06 Jan 2019, 19:5-10 (open access)

Systematic review of peer-reviewed medical literature on models of care for frailty from 2002-2017, considering the effective and transferable components of the models of care and evidence of economic impact.

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Rodríguez-Laso, A. et al. (2018). [State of the art report on the prevention and management of frailty](#). ADVANTAGE (pdf)

An overview of evidence of what does and doesn't work in frailty prevention and management. It offers a common conceptual framework for further work.

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Rodríguez Mañas, L. et al. (2018). [Key Messages for a Frailty Prevention and Management Policy in Europe from the Advantage Joint Action Consortium](#). J Nutr Health Aging (2018) 22: 892 (open access)

Describes the ADVANTAGE JA general structure, approach and recommendations towards a European health and social policy which will support frailty prevention.

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## SCREENING & ASSESSMENT

Ambagtsheer, RC. et al. (2019). [General practitioners' perceptions, attitudes and experiences of frailty and frailty screening](#). AJGP Vol. 48 No. 7 July 2019 (open source)

Study exploring the perceptions, experiences and attitudes of South Australian GPs as a foundation to understand the context for frailty screening implementation within Australia.

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**Amblàs-Novellas, J. et al. (2018).** [Frail-VIG index: a concise frailty evaluation tool for rapid geriatric assessment](#). *BMC Geriatr* 18, 29 (2018) (open access)

Report on this new tool for rapid geriatric assessment, and its ability to predict mortality at 24 months.

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**Apóstolo, J. et al. (2017).** [Predicting risk and outcomes for frail older adults: an umbrella review of frailty screening tools](#). *JBIC Database of Systematic Reviews and Implementation Reports: April 2017 - Volume 15 - Issue 4 - p 1154–1208* (open source)

Summary of the best available evidence from systematic reviews in relation to reliability, validity, diagnostic accuracy and predictive ability of frailty measures in older adults.

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**Benetas (2017).** [Frailty in community dwelling older people - Using frailty screening as the canary in the coal mine](#) (pdf)

Australian Government project on the identification of community dwelling older people with frailty, and the options for applying frailty screening in a range of settings.

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**Bongue, B. et al. (2017).** [Predictive performance of four frailty screening tools in community-dwelling elderly](#). *BMC Geriatr* 17, 262 (open access)

This study compares the performance of four frailty screening tools in predicting relevant adverse outcome (disability, institutionalization and mortality) in community-dwelling elderly.

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**British Geriatrics Society.** [Comprehensive Geriatric Assessment Toolkit for Primary Care Practitioners](#) (website)

Toolkit for GPs, medical and healthcare professionals working in primary care explaining the comprehensive geriatric assessment, when to use it, and planning and involving social services.

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**Buist, Y. et al (2019).** [Collaborating on Early Detection of Frailty: a Multifaceted Challenge](#). *International Journal of Integrated Care*. 2019;19(2):6 (open access)

Study aiming to provide insight in factors that impede or facilitate collaboration at a local level as perceived by the different actors and we explore their experiences.

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Checa-López, M. et al (2019). [FRAILTOOLS study protocol: a comprehensive validation of frailty assessment tools to screen and diagnose frailty in different clinical and social settings and to provide instruments for integrated care in older adults](#). **BMC Geriatr** 19, 86 (open access)

FRAILTOOLS´ main objective is to evaluate the usefulness of frailty scales in the detection of frailty in different clinical and social settings, and its integration in management for frail older patients.

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Dent, E. et al (2019). [Physical Frailty: ICFSR International Clinical Practice Guidelines For Identification And Management](#). **J Nutr Health Aging**. 2019;23(9):771-787 (pdf)

The International Conference of Frailty and Sarcopenia Research taskforce developed these clinical practice guidelines on the current evidence-base and provides recommendations for the identification and management of frailty in older adults.

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Dolenceva, E. & Rotar-Pavlič, D. (2019). [Frailty assessment scales for the elderly and their application in primary care: A systematic literature review](#). **Zdr Varst**. 2019;58(2):91-100. (open access)

This systematic review establishes which frailty assessment scales for the elderly are being used and what their applicability in primary care is like in Slovenia and around the world.

Gilardi, F. (2018). [Frailty screening and assessment tools: a review of characteristics and use in Public Health](#)

Developing an updated framework for the main procedures and measurement tools to assess frailty in older adults, particularly in primary care.

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Gilbert, T. et al (2018). [Development and validation of a Hospital Frailty Risk Score focusing on older people in acute care settings using electronic hospital records](#). **VOLUME 391, ISSUE 10132, P1775-1782 (open source)**

Study looking at whether older people with characteristics of frailty and who are at risk of adverse health-care outcomes could be identified using routinely collected data.

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Healthcare Improvement Scotland. [Frailty at the Front Door](#). ihub (website)

Collaborative aiming to improve the process of identification of frailty and the coordination of care to deliver better experiences and outcomes for people living with frailty who present to unscheduled care.

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**Khezrian, M. et al. (2017)** [Review of Frailty Syndrome and Its Physical, Cognitive and Emotional Domains in the Elderly.](#) *Geriatrics* 2017, 2(4), 36 (open access)

Literature review summarising commonly used frailty screening tools, and newly developed measurement methods.

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**Ma, L. (2018).** [Current Situation of Frailty Screening Tools for Older Adults.](#) *J Nutr Health Aging* (2019) 23: 111 (open access)

Review of frailty screening instruments in older adults and proposal for a two-step pathway for frailty identification, managing declines in intrinsic capacity, and boosting resilience.

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**Maxwell, CA. et al. (2018).** [The FRAIL Questionnaire.](#) *Journal of Trauma Nursing* Volume 25 | Number 4 | July-August (pdf)

Tool for bedside frailty screening of geriatric trauma patients to trigger additional patient assessment.

**Widagdo, IS. et al. (2019).** [The ability of four frailty screening instruments to predict mortality, hospitalization and dependency in \(instrumental\) activities of daily living.](#) *Age Ageing* 44:967–972 (open access)

Study assessing the predictive ability of the frailty phenotype, Groningen Frailty Indicator, Tilburg Frailty Indicator and frailty index for the outcomes mortality, hospitalization and increase in dependency in activities of daily living among older persons.

**Wilke Faller, J. (2019).** [Instruments for the detection of frailty syndrome in older adults: A systematic review.](#) *PLoS ONE* 14(4):e0216166. (open access)

Study to identify instruments for the detection of frailty in older adults, characterizing their components, application scenarios, ability to identify pre-frailty and clinimetric properties evaluated.

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## ELECTRONIC FRAILTY INDEX

**Boyd, PJ. et al (2019).** [The electronic frailty index as an indicator of community healthcare service utilisation in the older population.](#) *Age and Ageing*, Volume 48, Issue 2 2019

Investigation of the community service demand of frail patients using eFI as a measure of frailty.

**Clegg, A. et al (2016).** [Development and validation of an electronic frailty index using routine primary care electronic health record data.](#) *Age and Ageing*, Volume 45, Issue 3, May 2016, Pages 353–360 (open access)

Routine implementation of the eFI could enable delivery of evidence-based interventions to improve outcomes.

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Devereux, N. et al. (2019). [Testing a proactive approach to frailty identification: the electronic frailty index](#). *MJ Open Quality* 2019;8:e000682 (open access)

The implementation of a robust frailty identification tool will enable teams, organisations and national programmes to focus preventative support on those likely to benefit the most.

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**The Health Foundation.** [Building an analytical framework around the Electronic Frailty Index to transform care for people living with frailty](#) (website)

Midlothian HSCP project that used data analysis and quality improvement methods to explore how the index can be used to improve care for people with frailty.

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**Lansbury, LN. (2017).** [Use of the electronic Frailty Index to identify vulnerable patients: a pilot study in primary care](#). *Br J Gen Pract* 2017 (open access)

Study to assess the feasibility and acceptability of using the eFI in primary care.

## PREVENTION & INTERVENTIONS

Apóstolo, J. Et al (2018). [Effectiveness of interventions to prevent pre-frailty and frailty progression in older adults](#). *JBIM Database of Systematic Reviews and Implementation Reports: January 2018 - Volume 16 - Issue 1 - p 140–232* (open access)

Systematic review to summarize the best available evidence regarding the effectiveness of interventions for preventing frailty progression in older adults.

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**Avgerinou, C. et al. (2019).** [Health promotion for mild frailty based on behaviour change](#). *Health Soc Care Community*. 2019; 27: 1333– 1343 (open access)

Study exploring how mildly frail older people perceive health promotion based on behaviour change and what factors affect engagement with this approach.

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**Frost, R. et al (2017).** [Health promotion interventions for community-dwelling older people with mild or pre-frailty](#). *MC Geriatr* 17, 157 (open access)

Systematic review synthesising randomised controlled trials evaluating home and community-based health promotion interventions for older people with mild / pre-frailty.

Gwyther, H. et al. (2018). [Perceptions and experiences of frailty interventions: quantitative and qualitative results from a survey of partners within the European Innovation Partnership on Active and Healthy Ageing](#). *Ageing and Society*, 38(9), 1843-1867 (open access)

Paper exploring the experiences of partners delivering frailty interventions within Europe.

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Harrison, JK. et al. (2015). [Managing frailty as a long-term condition](#). *Age and Ageing*, Volume 44, Issue 5, September 2015, Pages 732–735 (open access)

This article considers how the conceptualisation of frailty as a long-term condition offers new management approaches based on systematically applied preventative and proactive interventions.

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Healthcare Improvement Scotland (2018). [Living well in Communities with Frailty: Evidence for what works](#) (pdf)

Paper aimed at health and social care commissioning focussing on evidence for interventions in frailty that are community based, focused on the prevention of harms or poor outcomes, and supported by relatively high-level evidence.

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Hoogendijk, EO. et al. (2019). [Frailty: implications for clinical practice and public health](#). *The Lancet SERIES | FRAILTY | VOLUME 394, ISSUE 10206, P1365-1375* (paywall)

Provides an overview of the global impact and burden of frailty, the usefulness of the frailty concept in clinical practice, potential targets for frailty prevention, and future directions that need to be explored.

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Liu, X. (2019). [Update on Interventions to Prevent or Reduce Frailty in Community-Dwelling Older Adults](#). *Curr Geri Rep* (2019) 8: 72 (open access)

Scoping review updating current knowledge on interventions to reduce frailty in community-dwelling older adults and its state of translation in real-world settings.

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Looman, WM. et al. (2019). [The \(cost-\)effectiveness of preventive, integrated care for community-dwelling frail older people](#). *Health Soc Care Community*. 2019; 27: 1– 30 (open access)

Systematic review of empirical evidence for the effectiveness and cost-effectiveness of preventive, integrated care for community-dwelling frail older people.

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Lopez, P. et al (2017). [Benefits of resistance training in physically frail elderly](#). *Aging Clin Exp Res* (2018) 30: 889 (open access)

Systematic review of the effect of resistance training alone or combined with multimodal exercise intervention on muscle hypertrophy, maximal strength, power output, functional performance, and falls incidence in physically frail elderly.

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Marcucci, M. (2019). [Interventions to prevent, delay or reverse frailty in older people: a journey towards clinical guidelines](#). *BMC Med* 17, 193 (open access)

Describes the journey through the development of evidence and consensus-based guidelines on interventions aimed at preventing, delaying or reversing frailty in the context of the FOCUS project.

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McPhee, JS. et al. (2016). [Physical activity in older age: perspectives for healthy ageing and frailty](#). *Biogerontology* (2016) 17: 567 (open access)

Looks at the physiological rationale for physical activity, risks of adverse events, societal and psychological factors with a view to inform public health initiatives for the relatively healthy and physically frail older person.

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Puts, M. et al. (2017). [Interventions to prevent or reduce the level of frailty in community-dwelling older adults](#). *Age and Ageing*, Volume 46, Issue 3, May 2017, Pages 383–392 (open access)

A scoping review of interventions and international policies designed to prevent or reduce the level of frailty in community-dwelling older adults.

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Shinkai, S. et al (2016). [Public health approach to preventing frailty in the community and its effect on healthy aging in Japan](#). *Geriatrics & Gerontology International*, 16: 87-97 (open access)

A 10-year community intervention for frailty prevention, examining its impact on healthy aging among older adults.

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Strojnik, V. & Gabrovecbranko, B. (2019). [Management of frailty at individual level: Narrative review of physical activity from the European perspective of joint action on frailty](#). *Zdr Varst.* 2019;58(2):84-90. (open access)

This paper reviews the effect of physical activity and exercise in frail older persons.

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Travers, J. et al (2018). [Delaying and reversing frailty](#). **British Journal of General Practice** 2019; 69 (678): e61-e69 (paywall)

Systematic review to assess the comparative effectiveness and ease of implementation of frailty interventions in primary care.

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Van der Elst, M. et al. (2018). [Interventions for frail community-dwelling older adults have no significant effect on adverse outcomes](#). **BMC Geriatr** 18, 249 (2018) (open access)

Systematic review investigating the effect of an intervention on adverse outcomes in frail older adults.

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## FURTHER READING

British Geriatrics Society (2018). [Fit for Frailty Part 1](#) (pdf)

British Geriatrics Society (2018). [Fit for Frailty Part 2](#) (pdf)

Best practice guidance for developing, commissioning and managing services in the care of older people living in community and outpatient settings.

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Donaldson AIC et al (2019). [Variation in acute and community service provision of care of the elderly services across Scotland](#). **J R Coll Physicians Edinb** 2019; 49: 105–11 (open access)

Findings from the Scottish Care of Older People initial scoping survey.

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Drennan, V. et al. (2018). [Moving upstream in health promoting policies for older people with early frailty in England? A policy analysis](#). **Journal of Health Services Research & Policy**, 23(3), 168–175 (open access)

Review exploring the extent to which policy in England has addressed those in transition between being active and healthy to early frailty, with a view to supporting independence and preventing further progression towards frailty.

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Gwyther, H. et al. (2017). [Understanding frailty: a qualitative study of European healthcare policy-makers' approaches to frailty screening and management](#). **BMJ Open** 2018;8:e018653 (open access)

This study aimed to elicit European healthcare policy-makers' views, understanding and attitudes about the implementation of frailty screening and management strategies and responses to stakeholders' views.

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**Kojima, G. et al. (2018).** [Frailty syndrome: implications and challenges for health care policy](#). Risk Management and Healthcare Policy, February 2019 (open access)

Implementation of evidence from frailty studies into clinical practice and health care policy making would improve quality of care and promote healthy aging as well as diminish the impact of aging on health care systems and strengthen their sustainability.

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**NHS England.** [Ageing well and supporting people living with frailty](#) (website)

We are working to develop patient centred services that enable people to age well, starting with prevention and early identification of frailty and supporting people appropriately on the basis of their needs through to the end of their life.

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**NHS RightCare (2019).** [NHS RightCare Frailty Toolkit](#) (pdf)

Toolkit offering practical advice and guidance on how to commission and provide the best system wide care for people living with frailty.

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**NICE.** [Improving Care & Support for People With Frailty](#) (website)

NICE resources for supporting local priorities.

**Royal College of General Practitioners (2016).** [Integrated care for older people with frailty](#) (pdf)

Case study examples of collaboration between GPs and geriatricians that provide innovative and interesting ideas about the care of older people across a range of locations, populations, and settings.

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**Shaw, RL. et al (2018).** [Understanding frailty: meanings and beliefs about screening and prevention across key stakeholder groups in Europe](#). Ageing and Society, Volume 38, Issue 6 (open access)

This study examines European stakeholders' accounts of the acceptability and feasibility of frailty screening and prevention to inform future intervention development.