



**Northumbria
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NHS
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Clinical Commissioning Group



Frailty Pathways Toolkit

**Standardised Toolkit for Planning, Provision, and
Evaluation of Frailty Pathways of Care**

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Context and Background of the Frailty Pathways Toolkit

Context

Population ageing is resulting in more people living with multi-morbidity and frailty (Soong et al., 2015; Lansbury et al., 2017). Around 10% of people aged over 65 years have frailty, rising to between a quarter and a half of those aged over 85 (British Geriatrics Society [BGS], 2014). Frailty is not an illness but a syndrome that combines the effects of natural ageing with the outcomes of multiple long-term conditions and a loss of fitness and reserves (Lyndon, 2015). A person with frailty can experience disproportionate serious adverse consequences following even a relatively minor event such as a “minor” fall, urinary tract infection or change in medication. For example, health and functional status can change from independent to dependent, mobility to immobility, stability of posture and gait to falls, lucidity to a delirium and continent to incontinent (Clegg et al., 2013). Frailty can lead to significant consequences for individuals including disability or moves to institutional care (British Geriatric Society, 2014).

Timely identification of frailty can help to reduce the likelihood of progression of frailty or poor outcomes and support the long-term management of people’s health and well-being. As such, ageing well and supporting people with frailty has moved to the forefront of the health and social care policy agendas. As part of this agenda, the systematic population-based identification of frailty is promoted on the premise that this could improve access to care and enable the needs of individuals to be met through early, proactive-targeted and appropriate care interventions (World Health Organisation, 2016). A common method of providing access to this care is through frailty care pathways. Care pathways are complex interventions for decision-making and organisation of care for a defined group of patients over a defined period of time. Their aim is to enhance the quality of care across the continuum by improving patient outcomes, promoting patient safety, optimising resource use and increasing patient satisfaction (De Bleser et al., 2006). According to Schrijvers et al. (2012), care pathways should have explicit goals, facilitate communication within the multi-disciplinary team (MDT), support co-ordination of care processes and monitor and evaluate outcomes.

Background to development of the Frailty Pathways Toolkit

The research team was made up of a group of researchers from Northumbria University, Newcastle Gateshead Clinical Commissioning Group (NG CCG), and the Ageing Well Network, North East and North Cumbria. Collaborating organisations were Newcastle University, Edinburgh University, Gateshead NHS Foundation Trust, Homegroup Ltd, and the Academic Health Science Network, North East and North Cumbria. A steering group

consisting of representatives from these organisations was appointed to oversee the project.

In order to understand the scope, range and effectiveness of frailty pathways in the United Kingdom (UK), we undertook a scoping exercise of UK Clinical Commissioning Groups' (CCG) websites for the period 2014–2020 to identify and examine records about frailty pathways in existence. The identified records included CCG annual reports, governing body reports, inspection reports, briefings and health and social care news bulletins. Of the 203 identified records, 79% were from the period 2017–2020. This suggested that there is an increasing focus on frailty care across the UK. To support the new pathways, roles such as frailty nurses, older person nurse specialists and frailty co-ordinators and services including: community integrated teams, specialist frailty clinics and enhanced healthcare in care homes services have emerged. The scoping exercise indicated that different pathways of frailty care exist but robust evidence of effectiveness of outcomes was limited.

We then completed a literature review with the aims of understanding what constitutes frailty pathways, and how effectiveness of pathways can be best evaluated (Thompson et al., 2021). The review found that:

- there is little consistency in the composition of frailty pathways
- evaluation and comparison of effectiveness of frailty pathways is challenging due to weaknesses, inconsistencies and differences in what outcomes are being measured and evaluation methods used
- it is essential to include consideration of process, determinant and implementation evaluations if pathway evaluation is to be meaningful

The review concluded that to achieve effective pathways and meaningful evaluations, a standardised method for planning, provision, and evaluation of frailty pathways of care is required.

Aims and Objectives

The aim of the project was to develop a standardised method for planning, provision, and evaluation of frailty pathways of care.

The objectives were to:

- develop a panel of academics and professional clinicians with expertise and experience in planning, delivering and/or evaluating frailty services
- use a Delphi approach to gain consensus of experts in frailty about the composition of frailty pathways, patient outcomes and outcome metrics required to measure pathway impact, and methods for evaluating impact
- develop a standardised toolkit that can be used in practice for planning, provision, and evaluation of frailty pathways of care.

Method

A two-round Delphi method was adopted as this is promoted as most suitable when there is a clear literature base from which to establish a current understanding of the topic (Petry et al., 2007).

Clinical and academic experts in frailty care were invited to join the expert panel. Eligibility criteria for clinical experts were having experience of delivering frailty care pathways/services, and having experience of using metrics to assess frailty care pathways/services. Eligibility criteria for academic experts were having conducted research in frailty care pathways, and having published papers about frailty care pathway evaluation.

Invitations to join the expert panel were sent to:

- authors of papers identified during the literature review process
- contacts identified during the CCG scoping exercise
- members of the Ageing Well Network
- contacts identified as having expertise in frailty by the research team and the Ageing Well Network
- members of the British Geriatrics Society.

Delphi process

Stage 1: statement generation

The current understanding of frailty care pathways and evaluation of pathways was informed by:

- the literature review (Thompson et al., 2021)
- the scoping review of UK CCGs (2014-2020)
- Patient and Public Involvement consultancy event (Feb 2021)
- Silver Book 2: Quality care for older people with urgent care needs (British Geriatrics Society, 2021)
- NHS Frailty Toolkit (NHS, 2019)
- Fit for Frailty guide (British Geriatrics Society, 2014)

A steering group workshop and seven expert panel workshops took place in May 2021. Additionally, four interviews were held in May and early June for those experts who were unable to attend the workshops. A detailed summary of current understanding was presented to 80 experts. Experts belonged broadly to one of three main categories: (i) clinician/practitioner with experience of working with frailty ($n = 40$) (ii) academics who specialised in frailty ($n = 26$) (iii) managers/strategic planners involved with frailty ($n = 14$). Clinicians/practitioners held a wide variety of roles associated with frailty care, including Advanced Nurse Practitioners (Frailty), Geriatricians, Consultant Physiotherapists, Clinical

Lead Admiral nurse, Lead Nurse Frailty, Head of Anticipatory Care, Community Frailty Matron, GPs, Lead Specialist Dietician (for older people), Therapy Team Lead, Ortho-geriatric Ward Nurse, Consultant Frailty Medicine, Old Age Psychiatry.

Experts came from all parts of the U.K., the Channel Islands and a wide range of international locations that included: Saudi Arabia, Qatar, Tibet, Greece, Norway, Romania, Switzerland, Australia and New Zealand.

The experts were invited to take part in discussions about the summary presentation. They were also be asked to share their experience of evaluation methods of frailty pathways and services and other issues that they considered salient to effective composition and evaluation of frailty care pathways. From the discussions and responses, statements for the round 1 survey were developed.

Stage 2: survey rounds

Round 1

The round 1 survey instrument was comprised of a series of Likert scale questions. For each question, a text box was provided so panel members could include comments. The survey was pilot tested for relevance of content, readability, and format by 4 academic and 4 clinician panellists. The survey instrument was distributed to all panellists via a survey web service. In total, 63/80 panellists fully completed the survey, a response rate of 79%. Experts belonged broadly to one of three main categories: (i) clinician/practitioner with experience of working with frailty ($n = 33$) (ii) academics who specialised in frailty ($n = 17$) (iii) managers/strategic planners involved with frailty ($n = 13$). Clinicians/practitioners held a wide variety of roles associated with frailty care, including Advanced Nurse Practitioners (Frailty), Geriatricians, Consultant Physiotherapists, Clinical Lead Admiral nurse, Lead Nurse Frailty, Head of Anticipatory Care, Community Frailty Matron, GPs, Lead Specialist Dietician (for older people), Therapy Team Lead, Ortho-geriatric Ward Nurse, Consultant Frailty Medicine, Old Age Psychiatry.

Expert respondents came from all parts of the U.K., the Channel Islands and a wide range of international locations that included: Saudi Arabia, Qatar, Tibet, Greece, Norway, Romania, Switzerland, Australia and New Zealand.

Consensus was assumed where all of the following occurred:

- Mode, median and mean scores were all 4 or more for 5-point Likert scale questions, and 5 or more for 6-point Likert scale questions
- Standard deviation was less than 1
- Combined agreement/strong agreement was over 80%

76% of the statements reached consensus.

Round 2

The statements that did not reach consensus after the first round (survey 1) were reformulated and included in the second round. The reformulated statements were informed by quantitative and qualitative analysis of round 1 responses. For example, statement 7 in the round 1 survey was '*All people over 65 years of age should be routinely screened for frailty*'. The statement did not reach consensus as the standard deviation was >1, and the combined agreement/strong agreement response was 73%. Analysis of the qualitative comments informed the round 2 reformulated statement '*People over 65 years of age should be screened for frailty when they present at health services*.' This statement reached consensus.

In total, 60/63 panellists fully completed the survey, a response rate of 95%. Consensus cut off was calculated using the same method used in round 1. Experts belonged broadly to one of three main categories: (i) clinician/practitioner with experience of working with frailty ($n = 30$) (ii) academics who specialised in frailty ($n = 18$) (iii) managers/strategic planners involved with frailty ($n = 12$). Clinicians/practitioners held a wide variety of roles associated with frailty care, including Advanced Nurse Practitioners (Frailty), Geriatricians, Consultant Physiotherapists, Clinical Lead Admiral nurse, Lead Nurse Frailty, Head of Anticipatory Care, Community Frailty Matron, GPs, Lead Specialist Dietician (for older people), Therapy Team Lead, Ortho-geriatric Ward Nurse, Consultant Frailty Medicine, Old Age Psychiatry, etc.

Expert respondents came from all parts of the U.K., the Channel Islands and a wide range of international locations that included: Saudi Arabia, Qatar, Tibet, Greece, Norway, Romania, Switzerland, Australia and New Zealand.

73% of the statements reached consensus. A further 22% reached 'tendency to consensus' (mean ≥ 3.7 but < 4 on 5-point Likert scale and combined agreement/strong agreement was between 70% and 79%). 5% of statements did not reach consensus.

Stage 3: consensus workshops

A steering group workshop and seven workshops took place in January 2022, where a detailed summary of the results from the surveys was presented to 44 experts. Experts belonged broadly to one of three main categories: (i) clinician/practitioner with experience of working with frailty ($n = 24$) (ii) academics who specialised in frailty ($n = 9$) (iii) managers/strategic planners involved with frailty ($n = 11$). Clinicians/practitioners held a wide variety of roles associated with frailty care, including Advanced Nurse Practitioners (Frailty), Geriatricians, Consultant Physiotherapists, Clinical Lead Admiral nurse, Lead Nurse Frailty, Head of Anticipatory Care, Community Frailty Matron, GPs, Lead Specialist Dietician (for older people), Ortho-geriatric Ward Nurse, Consultant Frailty Medicine, Nurse Consultant Vulnerable Older Adults.

Experts came from all parts of the U.K., the Channel Islands and a wide range of international locations that included: Saudi Arabia, Qatar, Tibet, Greece, Romania, Switzerland, Australia and New Zealand.

The experts were invited to take part in discussions about tendency to consensus, and non-consensus statements. The panel were also invited to generate and discuss reformulated statements.

At the end of the Delphi process, all statements reached consensus. Statements were then used to inform the following Frailty Pathways Toolkit.

Frailty Pathway Planning

Frailty pathway guiding principles

Contexts

- The term 'frailty' should be explained to service users to reduce misunderstanding, confusion and stigma.
- There should be clearly defined, standardised pathways for each level of frailty-including pre-frailty-that all staff, service users and carers should be aware of.
- Pathways should be co-produced with service users and carers in a meaningful way.
- Pathways should occur within favourable policy, organisational, funding, IT and workforce contexts.
- A robust workforce development strategy should be implemented to ensure that the 'frailty workforce' is competent.
- Service provider organisations should collaborate to develop integrated policies that facilitate the operation of frailty pathways across organisations.
- A standardised, integrated digital information system is required to share information across all organisations to ensure the person is central to their pathway.
- Evaluation of pathway processes and outcomes are integral to pathway delivery.

Pathways

- Only evidence-based interventions should be implemented in which the practitioner's decision is backed by the most appropriate information.
- Frailty assessment should include an algorithm or clear direction to appropriate pathways, depending on assessment outcomes.
- Pathways for each level of frailty should have a single point of contact for co-ordination and to reduce duplication.
- Frailty screening/assessment should identify and record all levels of frailty, including pre-frailty.
- Frailty screening/assessment should initially focus on deficits to clearly identify/prioritise/record a problem list (i.e. areas of concern to be addressed), and then include strengths/assets when planning/implementing interventions.
- Levels of frailty should be monitored on an ongoing basis and any changes recorded.
- Pathways should have easy re-referral procedures for post-discharge patients, so that pathway services can be re-accessed easily if deterioration occurs.

Frailty Pathway Provision

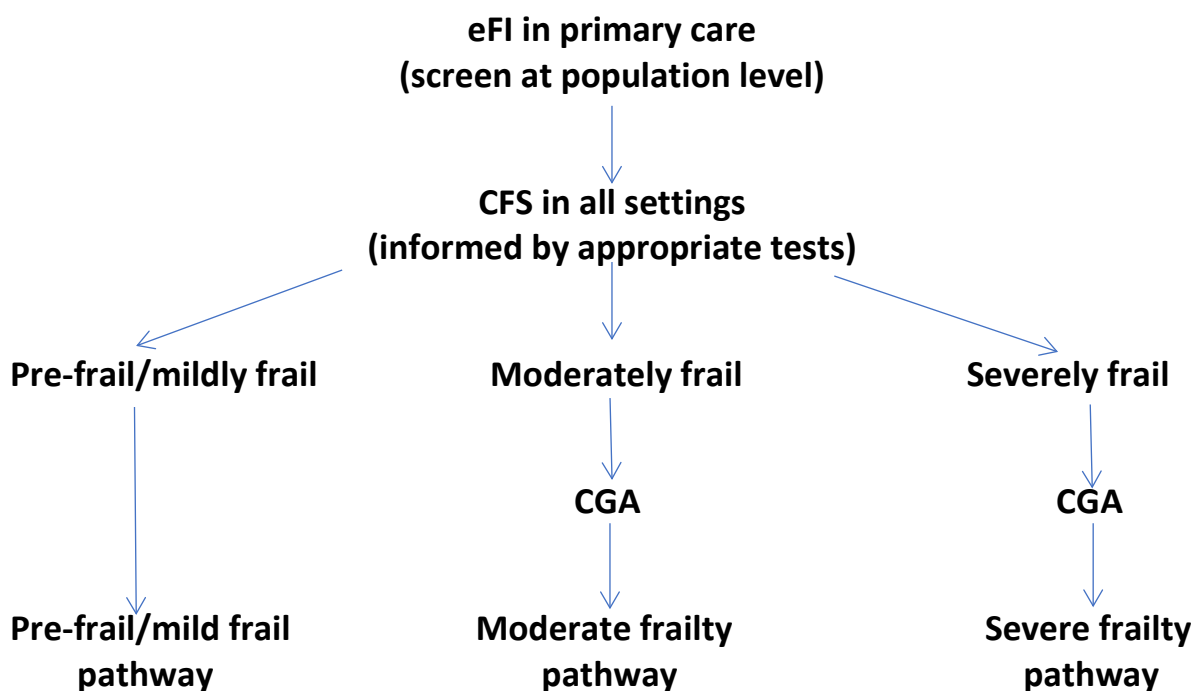
Frailty screening and assessment process

Electronic Frailty Index (eFI) should be used to screen for frailty risk at population level in primary care. Further screening is required to assess the presence/level of frailty for individuals.

Clinical Frailty Scale (CFS) should be used to screen for the presence of frailty and assess levels of frailty in all care sectors/settings. The CFS should be informed by tests appropriate to the individual and context, e.g. Timed get up and go; gait speed; PRISMA 7; grip strength, indication of common frailty syndromes (immobility, falls, susceptibility to medication side effects, delirium, incontinence).

Comprehensive Geriatric Assessment (CGA) should be undertaken where the CFS indicates moderate or severe frailty. CGA was not considered necessary for individuals assessed as pre-frail/or mildly frail.

Figure 1: Frailty Screening and Assessment Process



Who should be screened and/or assessed for frailty?

All people over the age of 65 years should be screened and assessed for frailty when they present at health services. eFI, CFS and CGA are validated for older people, and were not considered appropriate for those aged below 65 years. Younger people should be managed via public health initiatives, and chronic conditions pathways as appropriate.

Who should screen and assess for frailty?

Frailty screening and assessment should be undertaken by any professional competent in the care of older people.

CGA can be led by any professional with advanced or specialist skills in the care of older people, and CGA should involve the cross sector multi-disciplinary team (MDT).

Primary care services (e.g. general practice (GP), or dedicated frailty service) should be identified as being responsible for:

- **ensuring results of frailty screening and assessments (including CGA) are recorded**
- **coordinating appropriate frailty care.**

Pre-frailty/mildly frail pathways

Where individuals are identified as pre-frail/mildly frail, they should be referred onto a pre-frailty pathway. Pre-frailty pathways should:

- Be supported by a care navigator
- Be directed by service user choice, preferences and goals
- Involve shared decision-making with service users
- Monitor levels of frailty on an ongoing basis, and address any changes (i.e. discharge from the pathway where pre-frailty is reversed; refer to CGA and moderate/severe frailty pathways where deterioration occurs)

The following support and services should be readily accessible to individuals identified as pre-frail, as appropriate to their individual needs:

- Medication review
- Long-term condition annual reviews
- Health promotion and healthy ageing support
- Health education and coaching
- Supported self-management
- Resistance-based exercise
- Mental health support
- Support to reduce loneliness and social isolation
- Support to access meaningful activities (via social prescribing or pro-active direction to groups/facilities)
- Telecare
- Telehealth

Comprehensive Geriatric Assessment (CGA)

For individuals identified as having moderate or severe frailty, CGA should be available. CGA should include the following where applicable:

Physical

- Full physical assessment
- Long-term conditions assessment
- Medication review
- Pain assessment
- Nutrition and weight change assessment
- Hydration assessment
- Alcohol and/or drug use assessment
- Smoking status assessment

Functional

- Vision, hearing, and other senses assessment
- Continence assessment
- Mobility and falls assessment
- Activities of daily living and instrumental activities of daily living assessment

Psychological/cognitive

- Cognition assessment (including dementia, delirium, other cognitive impairments)
- Mental capacity assessment
- Mental health assessment (including depression, anxiety, low mood, other mental health conditions)
- Social isolation and loneliness assessment

- Self-management/self-care assessment

Social

- Carers' needs assessment
- Financial implications assessment (regarding social care costs /welfare benefits)
- Advance care planning needs assessment

Environmental

- Home, environment and safety assessment

Moderate frailty pathways

Where individuals are identified as having moderate frailty and have had a CGA, they should be referred onto a moderate frailty pathway. Moderate frailty pathways should:

- Be supported by a Care Support Plan (CSP) manager to co-ordinate and navigate care
- Include a health and social care summary (medical history, diagnoses, medications, social situation)
- Include an optimisation plan (directed by service user choice, preferences and goals; 'who is responsible for what'; timescales for interventions/reviews)
- Involve shared decision-making with service users
- Include an escalation plan (what carers need to look out for; who to contact if deterioration/crisis occurs; cross-sector response plan)
- Be supported by a multi-disciplinary team within an integrated care system
- Monitor levels of frailty on an ongoing basis, and address any changes

The following support and services should be readily accessible to individuals identified as having moderate frailty, as appropriate to their individual needs:

- Long-term care management plan (long-term conditions considered together, not as separate conditions)
- Medication review
- Prevention of falls, delirium, sepsis, incontinence, malnutrition
- Pre-crisis early intervention rehabilitation
- Memory clinics and referral to dementia pathways
- Mental health services
- Vision, hearing, dental and podiatry services
- Bone health
- Pain management
- Resistance-based exercise
- Home assessment
- Hospital at home
- Virtual ward
- Telehealth
- Telecare
- Support to reduce loneliness and social isolation
- Social prescribing or pro-active direction to groups/facilities
- Health promotion and healthy ageing support
- Education and coaching

Severe frailty pathways

Where individuals are identified as having severe frailty and have had a CGA, they should be referred onto a severe frailty pathway. Severe frailty pathways should:

- Be supported by a case management plan with case manager to co-ordinate and navigate care
- Include a health and social care summary (medical history, diagnoses, medications, social situation)
- Include an optimisation plan (directed by service user choice, preferences and goals; 'who is responsible for what'; timescales for interventions/reviews)
- Involve shared decision-making with service users
- Include an escalation plan (what carers need to look out for; who to contact if deterioration/crisis occurs; cross-sector response plan)
- Be supported by a multi-disciplinary team within an integrated care system
- Monitor levels of frailty on an ongoing basis, and address any changes

The following support and services should be readily accessible to individuals identified as having severe frailty, as appropriate to their individual needs:

- Long-term care management plan (long-term conditions considered together, not as separate conditions)
- Medication review
- Prevention of falls, delirium, sepsis, incontinence, malnutrition
- Pre-crisis early intervention rehabilitation
- Memory clinics and referral to dementia pathways
- Mental health services
- Vision, hearing, dental and podiatry services
- Bone health
- Pain management
- Resistance-based exercise
- Home assessment
- Hospital at home
- Virtual ward
- Residential intermediate care
- Management of care transfers support
- Telehealth
- Telecare
- Carer needs assessment
- Urgent care plan and implementation
- Funded emergency respite
- Support to access residential care/care homes (to include 'enhanced health in care home' support)
- Support with advance care planning
- Support to reduce loneliness and social isolation
- Social prescribing or pro-active direction to groups/facilities
- Palliative care
- End of Life care
- Health promotion
- Education and coaching

Who should be part of the MDT?

Core members of the MDT (presented in alphabetical order, not order of priority)

- Advanced clinical practitioners with expertise in frailty
- Geriatrician
- GP
- Nurse with specialist skills in the care of older people (e.g. care home nurse; community nurse/matron, GP practice nurse, frailty nurse – depending on the care setting)
- Occupational therapist with specialist skills in the care of older people
- Old age psychiatrist
- Older person and their carer(s)
- Pharmacist with specialist skills in the care of older people
- Physiotherapist with specialist skills in the care of older people
- Social worker

Not part of the core MDT, but a readily accessible key contact from the following services (presented in alphabetical order, not order of priority)

- Audiology
 - Parkinson's Disease
- Care navigator
 - Respiratory
- Continence nurse
 - Tissue viability
- Dentistry
- Dietetic services
- Equipment services
- Falls service
- Fire service
- Health and wellbeing coaching
- Housing service
- Nurse specialists in the following areas:
 - Cancer
 - Cardiology
 - Continence
 - Dementia
 - Diabetes
- Optometry
- Palliative/end of life services
- Paramedic service
- Podiatry
- Police service
- Professional advocacy
- Social prescribing service
- Speech pathology/therapy
- Telecare monitoring service
- Tissue viability nurse

Frailty Pathway Evaluation

What should be evaluated?

Process evaluations

Process evaluations should take place, and identified problems should be addressed before outcome evaluations occur.

The following should be evaluated in process evaluations

- Service users'/carers' experience of the pathway
- Organisational readiness to implement the pathway
- Cross-organisational agreement to implement the pathway
- Funding and resources
- Pathway policies and guidance
- Integrated digital information systems
- Competency of the workforce
- Fidelity (whether the pathway is delivered as intended)
- Reach (number of people on the pathway)
- Ease of access to the pathway
- Range of pathway interventions available
- Access to a range of competent professionals on the MDT
- Pathway is acceptable and meaningful to staff

Outcome evaluations

Outcome evaluations should include short-term, medium-term, and long-term outcomes.

Primary outcome evaluations should focus on service user and carer experiences.

The following should be evaluated in outcome evaluations:

Service user and carer experiences and self-reported changes in:

- Physical health
- Mobility, gait, falls, strength
- Mental health
- Cognition
- Well-being
- Quality of life
- Carer quality of life
- Carer burden
- Activities of daily living/instrumental activities of daily living function
- Social isolation, loneliness
- Pain
- Quality of end of life care
- Knowledge about their condition
- Confidence to self-manage
- Satisfaction with pathway as a means to support achievement of personal goals
- Controlling decisions while on the pathway

Changes in service user function/condition

- Physical health
- Mobility, gait, falls, strength
- Mental health
- Activities of daily living/instrumental activities of daily living function

Changes in costs

Changes in service use and reasons for changes

- Numbers of people with care and support/case management plans that are actively implemented.

- Rates of regular frailty reassessment and action taken where levels of frailty have changed
- Rates of patient harm (e.g. pressure ulcer, medication incidents, falls, sarcopenia)
- Rates of appropriate referrals (e.g. reablement/rehabilitation, dementia pathway, mental health pathway, end of life pathway, vision, dietitian, hearing, dental, podiatry services)
- Rates of social prescribing
- Medication review rates
- Home assessment and intervention rates
- Unplanned out-patient visit rates
- Primary care consultation rates
- Emergency Department attendance rates
- Emergency hospital admission rates
- Emergency hospital re-admission rates
- Number of telephone calls to emergency services
- Rates of patients who are stranded in hospital
- Rates of care home admission
- Rates of implementation of Advanced Care Plans
- Mortality rates
- Death in preferred place of dying rates.

How should processes and outcomes be evaluated?

Process evaluations

Process evaluations should use one or more of the following evaluation approaches.

Process models. These describe the process of translating the pathway into practice. They examine whether the pathway was carried out as planned.

Determinants frameworks. These explain what influences implementation outcomes. They identify barriers and enablers to implementation.

Implementation evaluation. This is used to understand reach, effectiveness, adoption, implementation, and maintenance of the pathway.

Outcome evaluations

Randomised controlled trials (RCTs) are not appropriate evaluation methods for complex pathways, unless they are used after/alongside process evaluations and other outcome evaluation methods. In the traditional evidence hierarchy, RCTs are usually accorded the highest status. However, due to the complexity of frailty pathways, evaluation methods need to reflect this complexity, e.g. account for differences/inconsistencies in pathway delivery; account for multiple interventions within the pathway; account for reasons in outcome changes. It is difficult for RCTs to account for such complexities. Where they are used, they should be part of mixed methods studies that also include process evaluations to account for process variables, and qualitative methods to provide context for outcome changes.

Outcome evaluations that evaluate service user and carer experiences and self-reported changes should use one or more of the following evaluation methods:

- Qualitative methods
- Cohort studies
- Case series
- Mixed methods (qualitative and cohort and/or case series).

Outcome evaluations that evaluate changes in service user function/condition should use one or more of the following evaluation methods:

- Cohort studies
- Qualitative methods
- Cross-sectional studies

- **Mixed methods (qualitative and cohort and/or cross-sectional).**

Outcome evaluations that evaluate changes in costs should use one or more of the following evaluation methods:

- **Cost effectiveness analysis**
- **Cost benefit analysis**
- **Cost utility analysis.**

Outcome evaluations that evaluate changes in service use rates should use one or more of the following evaluation methods:

- **Cohort studies**
- **Interrupted time series**
- **Cross-sectional studies**
- **Mixed methods (qualitative and cohort and/or interrupted time series and/or cross-sectional).**

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