Integrated Care System (ICS) Thought Lab - Frailty Transformation Programme

Tertiary Prevention of Frailty

22nd January 2025

Executive Summary:

The ICB is establishing a series of Thought Labs with our local Universities to explore how we expand the opportunity for research and evidence to inform the ICS transformation agenda. We are bringing together colleagues from a range of disciplines to discuss what the latest research evidence is suggesting would help to achieve the outcomes we are seeking. Our aim is to widen our collective appreciation of research and evidence. We want to ensure we are evidence informed in how we work as an ICS to support our ambition to improve patient and population outcomes whilst maximising use of our available resources.

This first Thought Lab focused on the tertiary prevention of frailty and was an opportunity to inform the development of the ICS Frailty Transformation Programme.

The presenters were Professor Liz Orton: Falls Prevention, Dr Mike Azad: Proactive Care, Professor Rowan Harwood: Holistic Approach to Frailty and Dr Jemima Collins: Pain Management in Frailty. Attendees were members of the ICS Frailty Programme Board and other colleagues from health and social care. The session was chaired by Victoria McGregor-Riley, Senior Responsible Officer (SRO) for Frailty. Following the presentations there was a wide ranging and engaging discussion.

The recommendations from the evidence are:

- Take a systems wide approach to physical activity and exercise programmes for frailty prevention with a range of programmes required for primary to tertiary prevention.
- Embed a proactive care approach for older people with frailty. This is personalised and coordinated multi-professional support and interventions for people living at home with moderate or severe frailty.
- Focus on a holistic approach to frailty with a range of interventions for older people with frailty including vaccination, falls prevention, deprescribing, proactive dementia support, hospital at home, rehabilitation, specialist chronic disease management pathways, specialist community based end of life care, specialist care home support, cataracts, hearing aids, arthroplasty and dentistry.
- Focus on pain management in frailty which is under recognised in older people. Consider chronic pain in prevention plans. Physical activity and exercise can be used to mitigate or delay frailty progression and improve pain severity.
- Utilise multiple outcome measures rather than relying on a primary outcome measure to demonstrate value and measure progress.
- Utilise key reports, articles and frameworks (as set out in the appendix) to guide an evidence informed ICS frailty model.

Next Steps

The Frailty Programme Team will take the recommendations to the ICS Frailty Programme Board for consideration of actions and next steps.

The Frailty Programme Team will provide a paper to the ICS Frailty Programme Board in twelve months' time to outline the actions and impact from the Frailty Thought Labs.

ICS Thought Lab -Frailty Transformation Programme

Tertiary Prevention of Frailty

Chair: Victoria McGregor-Riley, Interim Executive Director Strategy and System Development, Senior Responsible Officer (SRO) for Frailty, NHS Nottingham and Nottinghamshire Integrated Care Board (ICB)

Panel Members:

Professor Liz Orton	Professor of Public Health and Public Health Consultant, University of Nottingham
Dr Mike Azad	Consultant Geriatrician, Nottingham University Hospitals NHS Trust and Co-Chair of British Geriatrics Society Frailty and Urgent Care Special Interest Group
Professor Rowan Harwood	Professor of Palliative and End of Life Care and Honorary Consultant Geriatrician, University of Nottingham
Dr Jemima Collins	Clinical Associate Professor in the Care of Older People and Consultant Geriatrician, University of Nottingham

In attendance for discussion:

Professor Ahmad Lotfi	Professor of Computer Science, Nottingham Trent University

Attendees:

Dr Rebecca Barker	Clinical Lead Frailty Programme / Deputy Medical Director, ICB
Iain Macmillan	Group Manager for Service Improvement in Adult Social Care, Nottinghamshire County Council. Workstream lead for the Frailty Programme.
Dr Thilan Bartholomuez	Clinical Director, Mid Notts Place Based Partnership
Dr Vaithilingam Nanthakumar	Clinical Director, Larwood and Bawtry PCN
Dr Joanne Taplin	GP and Clinical Design Authority Frailty Clinical Lead, ICB
Dr Andy Foster	GP Partner, Parkside Medical Centre, Bulwell
Dr Aamer Ali	Consultant Geriatrician, NUH
Dr Al Ferraro	Clinical Director, NUH
Lisa Gowan	Deputy Chief Operating Officer, NUH
Mindy Bassi	Chief Pharmacist, ICB
Shabnum Aslam	Medicines Optimisation Pharmacist, ICB
Sarah Wilford	Frailty Programme Manager, ICB
Andria Birch	Chief Executive, Bassetlaw CVS
Hazel Buchanan	Associate Director of Health Inequalities and Strategic Clinical Programmes, ICB
Phil Huckle	Health Innovation Programme Manager, ICB / Health Innovation East Midlands
Annabel Shaw	Urgent and Emergency Care Programme Director, ICB

Helen Woodiwiss	Director of Operations, Nottingham CityCare Partnership
Vicky Harper	Specialty General Manager, Sherwood Forest Hospitals NHS Foundation Trust
Dr Tanya McCallum	Senior Research Strategy Manager, Faculty of Medicine and Health Sciences, University of Nottingham
Rachel Illingworth	Head of Research and Evidence, Nottingham and Nottinghamshire ICB

1. Purpose of the Thought Lab

The ICB is establishing a series of Thought Labs with our local Universities to explore how we expand the opportunity for research and evidence to inform the ICS transformation agenda. We are bringing together colleagues from a range of disciplines to discuss what the latest research evidence is suggesting would help to achieve the outcomes we are seeking. Our aim is to widen our collective appreciation of research and evidence. We want to ensure we are evidence informed in how we work as an ICS to support our ambition to improve patient and population outcomes whilst maximising use of our available resources. Today's session is the first in the series.

Introductions: Colleagues introduced themselves and their role, highlighting their involvement in the frailty programme and related areas.

Thought Lab Objectives: Victoria outlined the objectives of the workshop: focusing on tertiary prevention of frailty, evidence-informed approaches, and evaluating the impact of changes. Victoria highlighted that we are at the early stages of implementation of our frailty approach and the Thought Lab is an opportunity to ensure evidence informs our approach and any future benefits realisation and return on investment assessment.

2. Format of Session

The panel was convened to consider the following:

- *What does the research evidence tell us will have most impact and what should we stop doing to enable the **tertiary prevention of frailty** (i.e. interventions to help people manage their frailty in order to improve as much as possible their ability to function and their quality of life and avoid or minimise adverse outcomes)?*
- *How would we maximise this locally?*
- *How do we evaluate the impact of any changes?*

Each panel member gave a seven minute rapid evidence overview (presentations are included). Following all four presentations a wide ranging discussion took place. Key discussion points are recorded below.

3. Evidence Summaries

Falls Prevention: Professor Liz Orton discussed community-based falls prevention programmes, including the FaME programme and the work of Professor Pip Logan on falls in care homes. Liz referred to the **World guidelines for falls prevention and management for**

older adults (2022)[1] which recommends strength and balance exercises that are tailored to the individual and are progressive (get more and more difficult) for improving condition, confidence and reducing risk of fall.

- **FAME Programme**[2]**:** The FAME programme (developed by Professor Orton) is a community-based falls management exercise programme aimed at adults over 65 at risk of falling, delivered by specialist instructors. It is shown to improve quality of life, confidence and reduce falls rates by 26-54% with good return on investment. It is recommended in national and international policy guidance.
- **Action Falls**[3]**:** Relates to falls prevention in care homes. The Action Falls programme (developed by Professor Pip Logan) for all care home staff and has shown a 43% reduction in falls rate. It is cost-effectiveness with Action Falls costing £191 per fall averted and £108 per participant. It is now used in over 300 care homes nationally and is endorsed in NHS England's Enhanced Health in Care Homes (EHCH) Framework.

Proactive Care: Dr Mike Azad presented the proactive care model highlighting the British Geriatrics Society (BGS) report **'Be proactive: delivering proactive care for older people with frailty**[4]**'**. Proactive care is personalised and coordinated multi-professional support and interventions for people living at home with moderate or severe frailty.

- **Aims:** are to improve health outcomes and patient experience by delaying the onset of health deterioration where possible, maintaining independent living and reducing avoidable exacerbations of ill health and thereby reduced use of unplanned care.
- **Core Components:** Five core components of proactive care: identifying the target cohort, holistic assessments, personalised care plans, coordinated and multi professional interventions, and continuity of care.
- **Key Enablers:** Three key enablers for proactive care: a flexible workforce, shared care records, and clear accountability and shared decision-making.
- **Recommendations:** Proactive Care should be aligned at PCN level; Funding should be prioritised to accelerate implementation; Leadership is key; Outcome measures (before, during and after) are vital to evaluate success of proactive care interventions; a Multidisciplinary Team; Education and Training; Flexible cross organisational working; Use of BGS Be Proactive Guidance to guide the model
- **Outcome Measures:** Mike discussed the importance of measuring patient-reported outcome and experience measures, functional measures such as Activities of Daily Living and system metrics e.g use of unplanned care. Robust use of advance care planning and the ReSPECT process will provide both individual autonomy over decisions and system benefit through reduction in unplanned care.

[1] World guidelines for falls prevention and management for older adults: a global initiative | Age and Ageing | Oxford Academic
[2] Falls Management Exercise (FaME) Implementation Toolkit | ARC EM 2024
[3] Multifactorial falls prevention programme compared with usual care in UK care homes for older people: multicentre cluster randomised controlled trial with economic evaluation | The BMJ
[4] Be proactive - Delivering proactive care for older people with frailty.pdf

- Outcome measures are difficult to implement therefore process measures may provide another approach to demonstrate value of an intervention.
- The key outcome of Healthy Life Expectancy can be increased through Proactive Care. However, some system benefits may not be realised for a few years.

Holistic Approach to Frailty: Professor Rowan Harwood discussed key aspects of integrated health services for older people and referred to:

- **WHO Report Framework for Healthy Ageing**[5] (2015)**:** includes intrinsic capacity, functional ability (socio-cultural) and the importance of the environment in supporting older adults.
- **King's Fund Report Making Our Health and Care Systems Fit for an Ageing Population**[6] (2014) sets out the required shift to prevention and proactive care and 10 integrated services to provide person-centred care.
- **NIHR evidence review of NIHR frailty research**[7] (2024) included the following recommendations for frailty care: Holistic assessment, Multidisciplinary team consultations, Continuity of care, Care coordination tailored to complexity, Individualised treatment and self management support, and medication review

- Rowan warned against the view that no Randomised Controlled Trial (RCT) evidence implies an intervention is ineffective in relation to older people. This is due to complexity of conducting RCTs in this population including heterogeneous populations, interventions are complex, co-morbidities are common, adherence is uncertain and context is crucial.
- **Outcome Measures:** Rowan emphasised the importance of considering multiple outcomes for frailty interventions such as falls, hospital admissions, quality of life, dependency and care home admission, wellbeing and mental wellbeing, carer strain and poor carer quality of life rather than relying on a single primary outcome.
- Rowan presented the following as areas to focus on: vaccination; falls prevention with the intensity to prevent falls; deprescribing; proactive dementia support; hospital at home (virtual ward does not compare with what can be delivered); rehabilitation; specialist chronic disease management pathways (Stroke, Parkinson's); specialist community based end of life care; specialist care home support; cataracts, hearing aids, arthroplasty and dentistry.

Pain Management in Frailty: Dr Jemima Collins advised that chronic pain in older people is common, 50% of older people live with chronic pain. Pain is defined as an unpleasant emotional and sensory experience associated with real or potential tissue damage. Pain comes with functional decline, anxiety and depression. Chronic pain is under recognised in older people and not treated adequately. It is a real clinical challenge to improve pain management. **The Health Foundation Report Health Inequalities in 2040**[8] (2024) predicts that chronic pain will be one of the most rapidly increasing conditions over the next 15 years. Pain is much more problematic to the older person living with frailty.

[5] World report on ageing and health
[6] Making Our Health And Care Systems Fit For An Ageing Population | The King's Fund
[7] Frailty: research shows how to improve care
[8] Health inequalities in 2040 | The Health Foundation

Pain and Frailty: Jemima discussed the link between chronic pain and frailty which has been found in a number of population longitudinal studies. A meta-analysis from 2018[9] showed that pre-existing pain can predict the development or progression of frailty. Also evidence shows that pre-existing frailty can predict worsening pain in future.

- **Physical Activity:** Jemima highlighted that the shared mechanisms for pain and frailty are not currently well understood. The intervention that is most effective for frailty and pain is physical activity and exercise. Recent published evidence reviews show that physical activity and exercise can be used to mitigate or delay frailty progression and improve pain severity. There is no one size all approach to physical activity and exercise for those living with frailty and/or pain. Personalisation is key to adherence when delivering an intervention in a real world setting.
- **Consider interventions for different groups – prefrail, frail and advanced frailty.** Evidence to support physical activity and exercise is in the prefrail and frail populations. For people living with advanced frailty what is important is health-related quality of life and avoiding hospital admissions, with holistic assessment such as comprehensive geriatric assessment and multimodal interventions being key.
- **Prevention of frailty and preventing progression from frail to advanced frailty are key areas of focus.** Identify people who are pre-frail and implement interventions early to reduce progression. People with pain are a group to target to prevent the progression to frailty.
- **Research Gaps:** Jemima identified research gaps. In people living with both pain and frailty there is some initial evidence that physical activity can have an effect on frailty parameters and pain severity but this is not yet confirmed in adequately powered trials. Also an understanding of the most effective types of physical activity is unclear for different subgroups of frail individuals and for different populations.

4. Key Discussion Points

The following were the key areas of discussion that followed the presentations:

It was noted that the presentations today align with the Clinical Senate frailty intervention recommendations from 2024 which reinforces the messages about what we need to do.

Deprescribing

Polypharmacy and deprescribing is a key part of the ICS Medicines Optimisation Strategy and links to the Frailty Programme.

- **Challenges** faced by clinicians in deprescribing were highlighted.
- **Guideline Development:** there is a need for robust guidelines, support frameworks and training to empower clinicians to make informed pragmatic deprescribing decisions.

[9] Persistent pain is a risk factor for frailty: a systematic review and meta-analysis from prospective longitudinal studies | Age and Ageing | Oxford Academic

- **Personalisation:** the importance of personalised care and shared decision-making in the deprescribing process, considering the individual needs and preferences of patients which should include understanding of limited gains.
- **Operationalising Good Practice:** What is the culture change, cultural approach and ethos and organisational development work that needs to happen to support implementation? What is the evidence to support how we do this?
- Rowan noted in the chat that deprescribing is time intensive and that care homes would be a good place to start. Jemima noted in the chat that there are plenty of deprescribing opportunities in hospital admissions which they do as a matter of course and they have the benefit of being able to follow up patients. It was proposed in the chat that the Area Prescribing Committee look at this.

This links to work taking place in Nottingham City regarding group consultations and peer support for lifestyle medicine rather than initiating prescriptions. This is being considered at Place level and links to the messages discussed today about a holistic approach.

Liz noted in the chat the CHARMER (Comprehensive Geriatrician-led Medication Review) study led by Professor Debi Bhattacharya from University of Leicester which is currently ongoing in 24 hospitals including NUH and involves active deprescribing in in-patients aged 65 or over. Study aims to tackle overprescribing across England | News | University of Leicester

Physical activity and exercise

- **Systems-Wide Approach:** Liz and Jemima emphasised the need for a systems-wide approach and the importance of physical activity programmes for frailty prevention. This ranges from active travel to commissioned exercise services due to the physical, social and mental health benefits. How do Public Health and ICB commissioned programmes interface? Programmes from primary prevention through to tertiary prevention are required including exercise on referral programmes and exercise programmes for falls prevention, back pain, cardiac rehabilitation programmes, cancer prehabilitation etc delivered by leisure services and other providers. Being more active and structured exercise are important. How do we make social prescribing work in an integrated way so that secondary and tertiary care clinicians can refer into a social prescribing pathway?
- **Personalised Interventions:** The importance of personalised interventions was highlighted, considering the diverse needs and preferences of older adults, and the role of group-based face to face peer support exercise programmes rather than just providing leaflets, in enhancing motivation and adherence and social connectedness for older adults particularly with cognitive impairment.

Rehabilitation: Mike and Rowan emphasised the importance of rehabilitation for older people which is being severely underprovided currently. When older people need rehabilitation and don't receive it, it's not seen as a serious problem that needs attention. There is strong evidence for intermediate bed based care and rehabilitation but this has been disinvested in. Community rehabilitation is not a replacement.

Hospital at Home: Mike and Rowan both noted that Virtual Wards, developed by NHS England in the pandemic, are being invested in but the evidence is weak. The evidence is for Hospital at Home ie IV antibiotics, IV fluids and point of care testing.

Enhanced Health in Care Homes (EHCH) Framework for people with frailty in care homes. There is unwarranted variation in delivery which should be addressed.

Chronic Pain: The importance of chronic pain and pain services need to be considered in prevention plans which doesn't currently happen. Being pain free is important to patients.

Healthy Ageing: The VCSE sector work in primary and secondary prevention and are key to this. Ageing Well is not well understood by the public, Healthy Ageing is a better term. The current commissioning process makes it hard to value prevention outcomes which undermines the additional social value that could be secured through existing resource.

Technology in Frailty Care: Professor Ahmad Lotfi suggested exploring affordable technological solutions to support frailty care e.g for falls prevention and exercise. We need to focus on affordable and simple solutions to help this age group.

Commissioning and Disinvestment

- It is important to understand where there is strong evidence for interventions, map what we are commissioning and where are the gaps
- We need to redistribute resources from what doesn't work to where the evidence shows it does work and will have most effect
- We need to optimise existing services with the existing resources and get the basics right (e.g EHCH and medication reviews)
- There has been disinvestment in really important services such as community stroke service, community chronic neurological conditions service, community COPD service and we need to utilise the evidence better to inform decisions that are taken.

Innovation: Phil Huckle advised that innovation provides alternative ways to do things that can be more cost effective and optimise what we already do. Options include free product trials, funding from Health Innovation East Midlands (HIEM) and the possibility of an Innovation Exchange – Dragon's Den event looking at systems and products. HEIM have undertaken an Innovation Scan for Frailty.

Future Research Collaborations: Rachel Illingworth noted there are opportunities for research collaborations in relation to improving frailty care by working as a group of partners to address gaps in evidence and develop proposals for research grant funding.

5. Recommendations

The recommendations from the evidence are:

- Take a systems wide approach to physical activity and exercise programmes for frailty prevention with a range of programmes required for primary to tertiary prevention.
- Embed a proactive care approach for older people with frailty. This is personalised and coordinated multi-professional support and interventions for people living at home with moderate or severe frailty.

- Focus on a holistic approach to frailty with a range of interventions for older people with frailty including vaccination, falls prevention, deprescribing, proactive dementia support, hospital at home, rehabilitation, specialist chronic disease management pathways, specialist community based end of life care, specialist care home support, cataracts, hearing aids, arthroplasty and dentistry.
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6. Next Steps

The Frailty Programme Team will take the recommendations to the ICS Frailty Programme Board for consideration of actions and next steps.

The Frailty Programme Team will provide a paper to the ICS Frailty Programme Board in twelve months' time to outline the action and impact that has been taken from the Frailty Thought Labs.

Victoria thanked the presenters and everyone very much for attending the Thought Lab and for their contributions.

Key policy, guidance, reports and articles referenced by the panel

Falls Prevention

World guidelines for falls prevention and management for older adults (Montero-Odasso et al Age and Ageing 2022)
World guidelines for falls prevention and management for older adults: a global initiative | Age and Ageing | Oxford Academic

Falls Management Exercise (FaME) Programme Falls Management Exercise (FaME) Implementation Toolkit | ARC EM 2024 Led by Professor Liz Orton, University of Nottingham. A 24 week exercise programme delivered in the community by specialist postural stability instructors for adults aged >65 at risk of falling. There is a specific qualification run by Later Life Training. Instructors need their level 3 (exercise on referral) qualification first. Reduces falls rate and is effective in real world implementation with good return on investment. Recommended in national and international policy guidance since 2009. Endorsed by NICE (2020), included in the World falls guidelines (2022) and in the WHO Step Safely Report: Strategies for Preventing and Managing Falls Across the Life Course (2021).

Action Falls – a 1 hour training session (online) for all staff in a Care Home, falls incident chart, drug falls risk chart, checklist (screening and assessment with actions). Used for all residents repeated 3-6m. Multifactorial falls prevention programme compared with usual care in UK care homes for older people: multicentre cluster randomised controlled trial with economic evaluation | The BMJ (Logan et al 2021) Led by Professor Pip Logan, University of Nottingham

In November 2023 NHS England endorsed the Action Falls tool in the **Enhanced Health in Care Homes (EHCH) Framework** NHS England » Enhanced health in care homes framework

Proactive Care

British Geriatrics Society (BGS) reports

- Be proactive - Delivering proactive care for older people with frailty.pdf (November 2024)
- Be proactive: Evidence supporting proactive care for older people with frailty | British Geriatrics Society (October 2024)
- BGS Reablement rehabilitation recovery - Everyones business.pdf (May 2024)
- Bringing hospital care home: Virtual Wards and Hospital at Home for older people | British Geriatrics Society (August 2022)

NHS England » Proactive care: providing care and support for people living at home with moderate or severe frailty (December 2023)

Holistic Approach to Frailty

WHO Report Framework for Healthy Ageing from the World Report on Ageing and Health
World report on ageing and health (2015)

Making Our Health And Care Systems Fit For An Ageing Population | The King's Fund (2014)

NIHR Frailty: research shows how to improve care (2024)

Pain Management in Frailty

Health inequalities in 2040 | The Health Foundation (2024)

Persistent pain is a risk factor for frailty: a systematic review and meta-analysis from prospective longitudinal studies | Age and Ageing | Oxford Academic (2018)

Panel Members

Prof Liz Orton	Professor of Public Health – University of Nottingham	Professor Orton has recently been appointed NIHR Applied Research Collaboration (ARC) East Midlands theme lead for the "Building Resilience in Later Life" theme. She has worked extensively leading **falls prevention** research and implementation programmes. She leads the NIHR Public Health Interventions Responsive Studies Team (PHIRST-Light) for the East Midlands.
Dr Mike Azad	Consultant Geriatrician at Nottingham University Hospitals NHS Trust	Dr Azad is Co-chair of the British Geriatrics Society Frailty and Urgent Care Special Interest Group and has contributed to the following BGS national publications: - Be proactive: Delivering **proactive care** - Reablement, Rehabilitation, Recovery: Everyone's business - Bringing hospital care home: Virtual Wards and Hospital at Home for older people
Prof Rowan Harwood	Clinical Professor of Palliative and End of Life Care - University of Nottingham	Professor Harwood is an honorary consultant geriatrician and Chair of the WHO Technical Advisory group on Healthy Ageing. His research over the past 30 years has **included delirium and dementia, falls prevention, evaluation of community rehabilitation services, and more recently end of life care**, especially for people living with frailty and dementia. He recently published a large trial on maintaining independence for people living with dementia in the community.
Dr Jemima Collins	Clinical Associate Professor in the Care of Older People - University of Nottingham	As part of the Versus Arthritis Pain Centre, Dr Collins's research interests are in ageing populations with chronic pain and **managing pain in people living with frailty**. She is currently leading two grants exploring pain phenotyping and the experience of pain, in people living with dementia. She collaborates with Dr Alison Cowley (Associate Chief AHP at NUH) on the role of resistance exercise in the prevention of frailty.

In attendance for the discussion

Prof Ahmad Lotfi	Professor of Computer Science - Nottingham Trent University	Professor Lotfi is developing video-based fall detection to support independent living for older adults and web services for real-time **fall detection** using wearable accelerometer and gyroscope sensors.