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Collaborative Care: Enhancing Frailty Management Through Nurse-Pharmacist Partnerships

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Introduction

Frailty, linked to aging, significantly impacts the demographics of Thurrock, Essex. The population grew 11.6% from 2011 to 2021, reaching 176,000, with 14% aged 65 and older, a group vulnerable to frailty. Socioeconomic factors, particularly deprivation, worsen frailty. The Index of Multiple Deprivation highlights areas like Tilbury, South Ockendon, Grays, and Corringham in Thurrock as more deprived than the national average. This calls for targeted health interventions in these areas to address the compounded effects of deprivation on frailty and chronic conditions. Nationally, frailty affects 8-18% of older adults, and Thurrock has a growing need for age-specific services.

PROBLEM

A new community nurse-led frailty service in Thurrock faces key challenges:

1. Limited Prescribing and Medication Management: Without a pharmacist or medic, the clinic cannot prescribe or adjust medications, which can delay appropriate treatment. This limitation is particularly problematic for managing chronic conditions or medication-related complications.
2. Increased Burden on Nursing Staff: Nurses may need to handle responsibilities beyond their typical scope, such as assessing medication needs or coordinating with external prescribers, leading to increased workload and potential burnout.
3. Inadequate Comprehensive Care: Frailty management often requires a holistic approach, including medication optimisation. The absence of a pharmacist limits the ability to conduct thorough medication reviews, potentially increasing the risk of adverse drug interactions or polypharmacy.
4. Referral and Coordination Delays: Without in-house prescribing, patients may face delays in referrals for medication needs, raising the risk of hospital admissions.
5. Missed Opportunities for Preventative Care: The absence of pharmacists may hinder early detection of health deterioration, optimisation of treatment plans and compromise proactive management of frail patients.

CHANGE IDEA

Introduce a Pharmacist in the Community Frailty Service for 12 weeks to support with prescribing, medication management, workforce, capacity, workload pressures, comprehensive care, long-term condition management, holistic and preventative care.

AIM

To improve frailty management among the elderly in a diverse, aging population by collaborating with frailty nurses. Adding a pharmacist will help address workforce and capacity challenges, enhance medication management, and alleviate workload pressures. Key objectives for the frailty team include:

New Care Paradigm for older people and frailty

TODAY
'The Frail Elderly' (i.e. a label)
Presentation late & in crisis (e.g. delirium, falls, immobility)
Hospital-based: episodic, disruptive & disjointed

TOMORROW
"An older person living with frailty" (i.e. a long-term condition)
Timely identification for preventative, proactive care by supported self-management & personalised care planning
Community-based: person-centred & co-ordinated (Health + Social + Voluntary + Mental Health)

1. Comprehensive Assessments: Conduct holistic evaluations and create individualised care plans using the FrEDA (Frailty, Dementia and Any Aged Adult Nearing End of Life) approach.
2. Frailty Syndrome Management: Actively identify and manage conditions such as falls, fractures, cognitive issues, incontinence, and polypharmacy.
3. Reduce Hospital Admissions: Prevent unnecessary hospital and A&E visits through early identification of frailty, enabling proactive, personalised care.
4. Long-term Condition Monitoring: Ensure consistent management and monitoring of chronic conditions.
5. Promote Quality of Life: Enhance patient choice and well-being.
6. Encourage Well-being: Focus on good management practices to support overall health.

Method

- Complex patients booked in by frailty nurses for pharmacist review.
- Duration patient with frailty service up to 12 weeks.
- Memorandum of understanding (MOU) with Lead Pharmacist of Frailty and Older persons, to deliver frailty clinics – 0.2 wte (2 clinics) for 3 months (April-June 2024).

Eligibility criteria: Over 65 years of age, with a Rockwood frailty score of 5, 6 or 7 and at least one long term condition.

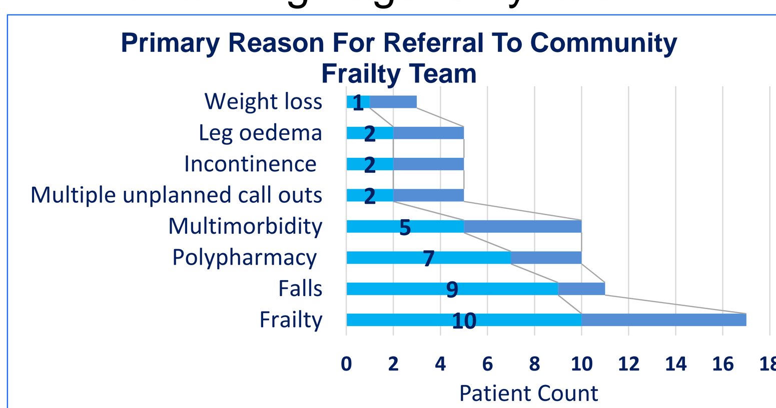
Exclusion Criteria:
1. Primary need is mental health, social care, learning disability, or substance abuse.
2. Medically unstable or acute symptoms needing urgent assessment.
3. Receiving end-of-life care.
4. Rockwood score >7, with needs met and no further benefit from curative management.
5. Effectively managed by other services (e.g., 24-hour CHC-funded nurse) and no requirement for additional therapeutic interventions.

Frailty management process by the Thurrock Frailty Team:

1. Screening for Frailty	2. Frailty Assessment and individual care planning	3. Interventions and Management	4. Follow-up and Monitoring
Step 1: Identify Patients at Risk **Step 2:** Use Frailty Screening Tool: Rockwood Frailty Score.	**Step 1:** Assess functional and fall risk **Step 2**: Nutritional status assessment. **Step 4:** Request relevant blood tests. **Step 5:** Comprehensive medication review.	**Step 1:** Medication optimisation. deprescribing, adjusting doses, review FBC, haematinics, bone profile, renal and hepatic function. **Step 2:** Blood pressure and pulse review. **Step 3:** Non-pharmacological interventions. **Step 4:** Patient and caregiver education	**Step 1:** Schedule regular follow-ups to reassess frailty status and falls risk. **Step 2:** Monitor for changes in condition. **Step 3**: Update other healthcare providers on the patient's condition, management changes, and any new risk factors identified. **Discharge when stable aim at 12 weeks maximum.

Results & Discussion

- 24 sessions (4th April-28th June 24)
- 37 patients in pilot
- Age: 60-92 years
- Mean average age: 84 years

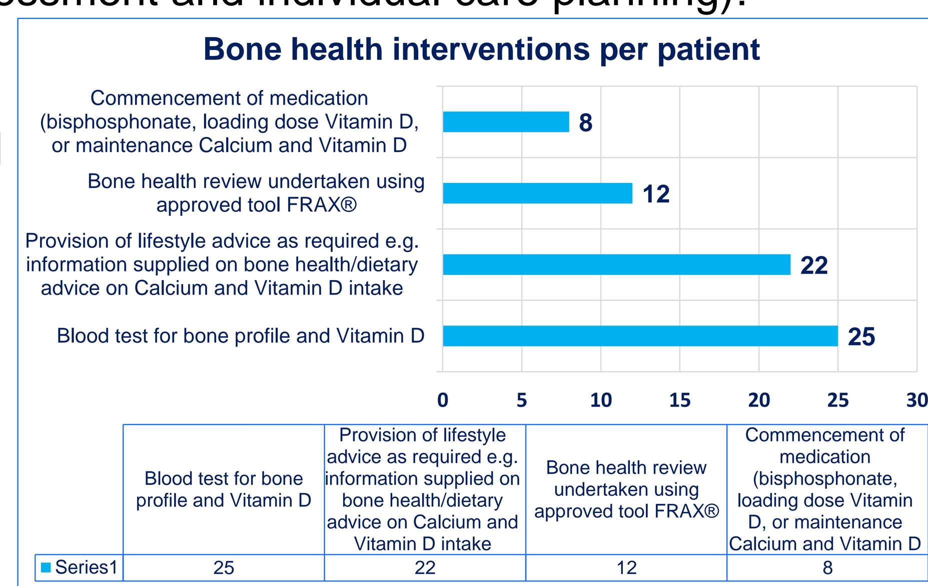


REASON FOR REFERRAL TO COMMUNITY FRAILTY TEAM

Primary Reason	Count	Secondary Reason	Count
Frailty	10	Postural hypotension	7
Falls	9	Hypotension	2
Polypharmacy	7	Hypertension	3
Multimorbidity	5	Falls	5
Multiple unplanned call outs	2	Multimorbidity	3
Incontinence	2	Symptomatic: tiredness, dizziness, confusion	3
Leg oedema	2	Pain	3
Weight loss	1	Reduced mobility	2
		Recent fracture	2
		Dementia	2
		Recent Discharge from hospital	2
		Incontinence	1

FrEDA (comprehensive in depth, holistic assessment and individual care planning): Completed on ALL 37 patients.
Rockwood frailty Score (RFS):
7.89% (3 patients) had a RFS prior to referral
33.33% (1 in 3 patients) had the correct RFS
Range of RFS in pilot: 4-7
Mean average RFS: 6

- **Clinically significant interventions: 155**
- **Average of 4.07 interventions per patient**



Drug interventions and cost:

Total no. of drugs prescribed to patients when referred to the frailty team	Number of drugs deprescribed	Polypharmacy reduced by	Number of Falls Risk Increasing Drugs (FRIDs) deprescribed	FRIDs reduced by	Annual drug cost savings were	Environmental impact: Avoidable carbon dioxide (CO_2) emissions from reducing inappropriate prescribing
382	88	23.03%	55	14.39%	£6,252.18	974.09 kg CO_2

Blood pressure and heart rate intervention:

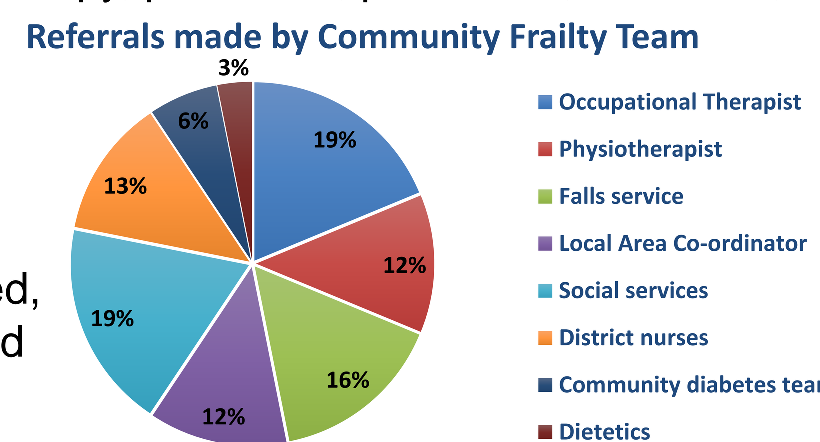
Lying and standing blood pressure prior to referral	Postural drop in blood pressure	Overtreated Hypertension and symptomatic	Bradycardia	24-hour ABPM	Intervention: Prescribing to manage hypertension	Intervention: De-prescribing to manage hypotension	Intervention: De-prescribing to manage bradycardia
7	8	16	3	22	1	19	3

Anticholinergic burden score (average score per patient) reduced by 13.82%
Anticholinergic burden score reduced in total by 31.08%

Prescribing by 1 pharmacist and 1 nurse: No. of drugs prescribed by community frailty team: **38** (deprescribing regimes, oral nutritional therapy, pain relief, potassium, vitamin D, iron, folate, b12 replacement).

Holistic care and referrals:

Health and social interventions: 57
Referrals: 37
Follow up 4 weeks after pilot: 1 patient deceased, 1 in hospice, 1 in emergency care, and 35 returned to GP care.



FINANCIAL IMPACT ASSESSMENT OF PHARMACIST CLINIC

- Assumption: Stopping fall-risk drugs in symptomatic patients with a history of falls may prevent hospital admissions (Rio cost per admission: £2.7K, n=12).
- Assumption: Discontinuing harmful polypharmacy (e.g., unnecessary dual therapy with DOACs and anti-platelets, alongside declining haemoglobin levels and lack of gastro-protection, as well as drugs causing symptomatic hyponatraemia, hypokalaemia, and bradycardia) may reduce hospital admissions (average cost: £2.7K per patient, n=10).
- Assumption: Initiating and titrating medications to manage long-term conditions effectively, along with switching medications or reducing doses to address adverse effects and abnormal blood results, may help prevent hospital admissions (cost per admission prevented: £270, n=15).
- **Cost of investment for 3-month project (0.2wte 8b pharmacist role Essex): £3,618**
- **Savings in Hospital Avoidance ~£63,450.**
- **The return on investment (ROI) is approximately 1655.4%.**

Conclusion

The project highlighted the benefits of collaboration between pharmacists and nurses in a frailty clinic, ensuring comprehensive care that enhances the well-being of frail older adults. This collaboration resulted in several key outcomes:

1. Positive Return on Investment (ROI): The pilot delivered a strong ROI by reducing healthcare costs, optimising resources, and improving health outcomes.
2. Improved Medication Management.
3. Better Chronic Condition Control.
4. Reduced Falls and Fracture Risk.
5. Enhanced Patient Outcomes and Quality of Life.
6. Fewer Hospital Admissions: Proactive management helps prevent hospitalisations and supports admission avoidance.
7. Streamlined Communication: Facilitates coordination and updates within the healthcare team for consistent follow-up.

Next Steps for Pharmacist and Nurse Collaboration in Frailty Care:

1. **Secure Funding for the Pharmacist Role in the Frailty Clinic:** Ensure continued funding to enhance frailty management and patient outcomes. Expand the nurse-pharmacist partnership model to other teams managing falls and frailty for a collaborative, multi-disciplinary approach.
2. **Integrate the Model into Rehabilitation Wards:** Implement targeted interventions in rehabilitation settings focusing on medication reviews and patient education.
3. **Showcase the Model:** Highlight the non-medical-led approach within NELFT, ICB, and PCN, emphasising the value of teamwork and skill-mixing in frailty care.

What's Next?

Acknowledgements for Clinical Delivery of Service: Claire Newman, Frailty Nurse, Nicola Newnes, Frailty Nurse, Linda Sado, Associate Practitioner, Tracey Neville, Health Care Assistant,Thurrock Community Frailty Team, NELFT.
Project Oversight Team: Beenish Ali, Lead Directorate Pharmacist, Essex & Kent, Amy King, Chief Pharmacist, Dr Olumide Adeotoye, Consultant Geriatrician and Associate Medical Director, NELFT, Rina Desai, Pharmacist, Patient Safety & Governance, Clinical Leadership and Innovation Directorate, Mid and South Essex ICS, Fenil Gandhi, Lead Clinical Practice Based Pharmacist, The Park Medical Practice, Preston, Dayo Otulana, Senior Pharmacist, Hospital@Home, Hertfordshire Community Trust, Rita Thakaria, Partnership Director, Adult Health and Social Care, Thurrock Council, Carmel Micheals, Thurrock Health and Social Care, Implementation Assistant Director, Alison French, Head Of Community and Crisis Care, Nicola Warden, Clinical Lead, Essex & Kent Dementia Crisis Team, NELFT.