INNOVATION PROFILE

CASE-FINDING FOR COMPLEX CHRONIC CONDITIONS IN PERSONS 75+ (C5-75)

CENTRE FOR FAMILY MEDICINE

The Centre for Family Medicine

ADVANCING FRAILTY CARE IN THE COMMUNITY COLLABORATIVE

IMPROVING CARE FOR OLDER PEOPLE WITH FRAILTY AND SUPPORTING THEIR FAMILY/FRIEND CAREGIVERS

A 23-month Quality Improvement Collaborative

Canadian Foundation for Healthcare Improvement
Fondation canadienne pour l'amélioration des services de santé

Canadian Frailty Network | Réseau canadien des soins aux personnes fragilisées

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About the Canadian Foundation for Healthcare Improvement

The Canadian Foundation for Healthcare Improvement supports partners to accelerate the identification, spread and scale of proven healthcare innovations. We work shoulder-to-shoulder with you to improve health and care for everyone in Canada. CFHI is a not-for-profit organization funded by Health Canada.

About the Canadian Frailty Network

The Canadian Frailty Network (CFN) improves the care of older adults living with frailty and supports their families and caregivers. CFN does this by increasing recognition and assessment of frailty, increasing evidence for decision making, advancing evidence-based changes to care, educating the next generation of care providers, and by engaging with other adults and caregivers.

OVERVIEW

Case-finding for Complex Chronic Conditions in Persons 75+ (C5-75) was developed by the family health team at the Centre for Family Medicine in Kitchener, Ontario in 2012 and tested in 19 local family practices. The program was designed so that family practice clinics could, with minimum training and equipment, rapidly screen patients 75 years and older for frailty and its associated conditions.

Based on the Fried Phenotype, C5-75 examines gait speed and hand grip strength to identify frail older adults who may be at higher risk for health destabilization. C5-75 is a two-level test. Level 1 screening is a systematic identification done once a year, typically by nursing staff, and can be completed in minutes in most family practice settings. Level 1 screening examines gait speed and hand grip strength to identify those most at risk of being frail, with consideration also given to a patient's age, physical activity level and any recent falls they may have experienced. If an individual is found to be frail based on Level 1 screening, they move to a Level 2 assessment, which is multifaceted and comprehensive. A Level 2 assessment can be completed in 30 minutes or less.

C5-75 is designed to proactively identify unrecognized or sub-optimally treated co-existing conditions, and to target appropriate interventions with the goal of averting medical crises that result in emergency department (ED) visits, hospitalization and early transition into long term care. The C5-75 program aims to help older adults with frailty continue to live in the community with the best quality of life for as long as possible.

TARGET GROUP FOR THE INNOVATION

- **Patients aged 75 and older who:**
  - Are patients in a family practice group with shared electronic health records
  - Have been screened as frail, based on the C5-75 protocol

TRAINING REQUIRED TO SUPPORT THE PROGRAM

Sites delivering C5-75 have staff undergoing training through a video-conference coaching session with the C5-75 nurse. The nurse instructs staff on the specifics of measuring gait speed and hand grip strength.

This training session takes approximately two hours with a half to one-hour follow-up session to answer questions and address challenges. The program is simple to teach, but technique is important for accurate measurements. Printed instructions are available for nursing staff to remind them of appropriate measurement techniques.

APPROACHES TO INTERVENTIONS

Intervention	Approaches

1. Frailty Identification	• Level 1 screening is offered annually to all patients aged 75 and older during any regular office visit.
	• If the patient agrees and is well enough to be screened, and clinic work flow allows, a nurse immediately screens the patient before or after the appointment with their primary care physician (PCP).
	• The screening takes an average of five minutes or less to complete.
	• Patients are assessed based on:
	  • Frailty — four-metre gait speed of ≥6 seconds and hand grip strength within the lowest 20 percent of the gender relevant population
	  • Exercise — self-reported level of physical activity
	  • Falls — two or more within the previous six months
	• If the patient screens positive for frailty, the patient is scheduled for a Level 2 screening at a separate office visit.
	Time to complete C5-75 Level 1: 5 minutes
	Method of documentation: The tools are completed on paper or through an EMR.
	Resources: Dynamometer ($300 - $400), stop watch, bright-coloured tape to mark out four-meter length on the floor.
	Licensing: The C5-75 tool is copyrighted and available in English upon request from the team.
	Providers Involved: A nurse conducts the Level 1 screening.

2. Geriatric Assessment	• The Level 2 screening involves an interprofessional assessment for those identified as frail during Level 1 screening, and takes an average of 30 minutes to complete.
	• The assessment always includes a medication review, and also includes a review of the following, as necessary:
	  • Nutrition
	  • Cognitive impairment
	  • Caregiver burden
	  • Depression/anxiety/social isolation
	  • Falls risk
	  • Fracture risk
	  • Urinary incontinence
	  • Assessment Urgency Algorithm (AUA)

	2. Geriatric Assessment	• The assessment is generally completed by a nurse along with a pharmacist who will do the medication review and (if available) a social worker to address social isolation if the Lubben Social Network Scale (LSNS-6) scores positive for social isolation. • The social worker will confirm whether the person might benefit from Intensive Geriatric Service Workers (IGSW) or similar support services available in other regions. The IGSW will accompany persons to new programs, helping to get them connected with available supports and services. • Results of the assessment, and specific management recommendations, are sent to the patient's family physician via electronic medical records (EMR). **Time to complete C5-75 Level 2:** 30 minutes. **Method of documentation:** Tools are completed through an EMR. **Resources:** Printed instructions on appropriate process and procedures to undertake the Level 2 assessment, ensuring standard practice across all providers delivering this assessment. **Licensing:** The C5-75 tool is copyrighted and available in English upon request from the team. **Providers Involved:** Either a nurse or a pharmacist – with or without a social worker's input.
	3. Tailored Intervention	• As C5-75 is an integrated approach to frailty in primary care, recommendations are provided to the PCP based on the C5-75 assessment findings. The PCP is then able to use this information to tailor the recommended intervention(s) based on their knowledge and an individual's preferences, values and goals.

	4. Person and Family-Centred Care	• Based on the screening results, the PCP, patient and their care partner have an informed conversation about their results, care goals and next steps.
		• Level 2 screening includes a Zarit Burden interview as part of its caregiver burden assessment.
		  • If the caregiver is present, the four-item Zarit scale is administered. If the caregiver is not present, the patient must give verbal consent that the caregiver may be contacted by phone.
		  • If the score is ≥ 8, the caregiver should be asked to complete the 22-item Zarit scale.
		  • If the score is ≥ 17, the patient's PCP should be notified and the patient should be given a social work referral.

	5. Collaborative Care	• Interprofessional teams are engaged in Level 2 screening. These include the PCP, nurse, social worker, pharmacists and occupation therapist, when needed. • The interprofessional team works together to support the co-development of a care plan with the patient, to be managed in primary care.
	6. Community Supports	• Individuals are referred to geriatric medicine if they are identified at the highest risk. • Intensive geriatric service workers bring high-risk patients to programs, medical appointments etc. to get them started into programs and community support services. This role is limited and not available in all regions.
Overarching Principles		Approaches

7. Quality Improvement, Change Management and Evaluation, and System Level Change		• Measurement and evaluation:
		  • C5-75 was informed through an iterative process of testing and evaluation.
		  • Testing and evaluation included using patient, provider, staff and expert feedback.

OUTCOMES ACHIEVED

In the development of C5-75, gait speed and hand grip strength together were found to be a sensitive and specific proxy for the full Fried Frailty Phenotype for identifying those who are frail, while being faster to administer, and resource-light in primary care.

The 6-month community pilot project of C5-75 engaged 14 physicians and 11,819 patients within an urban family practice setting. Community staff such as pharmacists were trained to complete C5-75 Level 1 screening in addition to their prerequisite medication review duties. The challenge of how to fund pharmacists to do this still remains. Grant funding was used to undertake the 6-month pilot project.

Satisfaction levels were measured for both patients and staff through a care provider survey and patient and caregiver survey. The mean patient score was 4.5 out of 5 or "very satisfied." When surveyed, pharmacy staff perceived the screening process as feasible and acceptable, identifying time concerns in only two cases (4%). Eighteen family physicians highlighted the usefulness of C5-75 in their frailty assessments. No staff reported lack of comfort with screening.

LESSONS LEARNED

- C5-75 can be used as a tool to rapidly identify those who are frail within primary care and is within the nurse and allied health professional scope of practice.
- C5-75 requires minimum training and is generally low cost and supports the coordination of integrated care in complex, busy primary care practices.
- Future teams/organizations that use C5-75 will get an even more efficient version of the existing algorithm as the team is nearly done their analysis of high vs low yield items. The C5-75 team has been able to trim down their Level 1 based on their analysis so that 40% fewer persons aged 75+ will require the hand grip and gait speed annually based on their response to exercise level, self-reported falls, and age. Final analysis is expected by end of 2019.
- The main challenge that remains is the integration of any systematic screen for frailty in the context of hectic/chaotic primary care practice flow. There are times when the few minutes to conduct Level 1 is easy and other times when the office is packed and even the few minutes that Level 1 takes can contribute to that stress.

AVAILABLE RESOURCES, ARTICLES AND RESEARCH ON THE INNOVATION:

- C5-75 Program CFN Award and Story Board
- Lee, L., Patel, T., Hillier, L., Locklin, J., Milligan, J., Pefanis, J., Costa, A., Lee, J., Slonim, K., Giangregorio, L. Hunter, S., Keller, H., and Boscart, V. (2018, June 7). Frailty Screening and Case-Finding for Complex Chronic Conditions in Older Adults in Primary Care. Geriatrics, 3(3). doi:10.3390/geriatrics3030039
- Lee, L., Patel, T., Costa, A., Bryce, E., Hillier, L.M., Slonim, K., Hunter, S.W., Heckman, G., Molnar, F.J. Accuracy of gait speed and handgrip strength as a screen for frailty in primary care. Canadian Family Physician. 2017;63(1):e51-e57
- Lee, L., Heckman, G., Molnar, F. Frailty: Identifying elderly persons at high risk of poor outcomes. Canadian Family Physician. 2015;61(3):227-231.