Determining if and how older patients can safely stay at home with additional services

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Clinical question

How can I determine the amount of support required by my frail older patients to help them remain at home as safely as possible?

Bottom line

To determine if a patient can safely remain at home, the frequency of their need for support must be compared with the frequency of support availability to determine if there are gaps. One must then decide whether the gaps can be filled with home services or whether they require more intensive support from a retirement home or long-term care. A practical approach to determining care needs for older patients living at home can be found in the article "The 'interval of need' approach: how to determine if an older person can stay at home safely or be discharged from hospital safely" (**http://canadiangeriatrics.ca/wp-content/uploads/2018/01/CME-Journal-Vol.-8-Issue-1-Article-3_Final.pdf**).[1]

Evidence

- According to Statistics Canada, more than 2.2 million Canadians received home care in 2012.[2]
- Of this population, 15% (331 000) had only partially met home care needs for a chronic health condition.[2]
- Those with unmet or partially met needs reported several adverse effects such as loneliness and higher levels of stress.[2]

Approach

In 1976 Isaacs and Neville coined the term *interval of need*, which is the length of time a person can manage without human assistance.[3] The traditional way to measure care needs is to evaluate the person's functional status, typically by assessing how he or she performs instrumental activities of daily living and other activities of daily living, and then determining the functional areas where the patient is independent or has appropriate supports and areas where the patient has unmet requirements for assistance. By identifying gaps, one can then search for home-based resources or consider the need for a more supportive environment.[4] However, this approach does not reflect the frequency with which care is needed.

A complementary framework focuses on the intensity or frequency of support that people require for independent living (partially adapted from Isaacs and Neville[3]). **Table 1** outlines classifications of intervals of need.[5]

Table 1. Interval of need classification

INTERVAL OF NEED	DEFINITION	EXAMPLE
Long	Care needed less than once daily (or at least once weekly)	Shopping, money management
Short	Care needed at least once daily	Preparing meals
Critical	Care needed unpredictably throughout the day	Toileting, falls
Intensive	Care needed continuously	Wandering

World Health Organization.[5]

Implementation

Using this approach, there are 3 initial important considerations affecting someone's "ability" to return home or to stay at home: safety, interval of need, and interval of support.

Safety. Seniors who choose to stay in their home might live with some risks. If a senior is competent and has the capacity to make the decision to live independently with risk, we must respect this right and should offer resources and supports to facilitate the goal. Much can be done to mitigate these risks, such as alerts, fall alarms, and medication administration systems. If it is unsafe for the person to use the stove, the microwave might be a safe option and a stove guard can be used. Other disciplines, such as occupational and physical therapists, have expertise in providing a range of recommendations for environmental adaptations or gait aids to minimize risk.

Interval of need versus interval of support. In practical terms, the *interval of need* is how long a caregiver can safely leave a person without seeing them. The *interval of support* is the interval of time between episodes where supportive services can be provided in person. By considering gaps between the interval of need and the interval of support, one has a framework to decide whether someone can stay home or return home from hospital with existing resources or with enhanced resources, or whether you should recommend moving them to a retirement home or long-term care (**Table 2**). This applies to persons who are frail (with or without dementia) or who have physical or functional limitations.

Family physicians can use interval of need and interval of support to guide care planning in collaboration with other disciplines and with patients and families.

Table 2. Examples of interval of need for people with dementia: *+ indicates little behaviour or few services; ++++ indicates extreme behaviour or high service use.*

INTERVAL OF NEED	DEMENTIA STAGE (MMSE)	FUNCTIONAL LOSS	FORMAL SERVICES	CAREGIVING SITUATION
2-7 d	Mild (23-28)	• Some instrumental ADLs • Responsive behaviour: none to +	+ to ++	• Alone • Might have CG
12-48 h	Mild to moderate (19-22)	• Most instrumental ADLs • Responsive behaviour: none to +	+ to +++	• Alone or in RH • Family supports • Might have CG
4-12 h	Moderate (14-18)	• Some personal ADLs • Responsive behaviour: none to ++	+ to +++ with respite	• Needs attentive or live-in CG or RH • LTC needs to be considered
1-4 h	Moderate to severe (10-13)	• Most personal ADLs • Responsive behaviour: + to +++	++ to +++ with respite	• Live-in CG (usually spouse), RH (assisted), or LTC (suggest applying now)
< 1 h	Severe (< 10)	• All personal ADLs • Responsive behaviour: + to ++++	++ to ++++ with respite	• Devoted CG or LTC (definitely apply now)

ADL—activity of daily living, CG—caregiver, LTC—long-term care, MMSE—Mini-Mental State Examination, RH—retirement home.

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Competing interests
None declared

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