

Section 6: Rehab in home and ambulatory settings

REHAB IN HOME AND AMBULATORY SETTINGS

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INTRODUCTION

Community-based rehabilitation (in-home and ambulatory settings) is focused on enabling individuals with impairments and disabilities to reach and maintain their optimal physical, sensory, intellectual, communicative, psychological and social functional levels. This focus promotes health and well-being, re-integration to and participation in community living and serves to optimize quality of life.¹ It is delivered in ambulatory settings (hospitals, community clinics or health centres) or in the home and is provided by or under the supervision of a regulated rehabilitative care professional or an integrated, interprofessional team of regulated health professionals in an individual, group or virtual format. Home-based rehabilitative care for the purpose of progressing rehabilitative care goals or the maintenance of functional status is typically restricted to patients who are unable to access the services in a setting outside of the home due to their condition² or a lack of supports to access care outside the home (e.g., lives alone, lengthy distance from rehab provider, etc.).

Individuals might need community-based rehabilitative care to assess and treat functional impairments following an injury or surgical procedure or the sudden onset of a life-altering disability. For patients with a debilitating or progressive chronic condition, rehabilitative care can help when there are flare-ups or a worsening of symptoms. Rehabilitative care can also be provided to

maintain and/or to prevent a decline in a person's functional/clinical status because of de-conditioning, a health condition, pain or aging. It can help to optimize independence, reduce the risk of injury and maximize overall quality of life.

For information on the role of specific rehabilitative care professionals, see **Section 3: About rehab professionals**

To find information on rehabilitative care programs and services, refer to the Rehabilitative Care Alliance's rehab portal, rehabcareontario.ca. Information can be found for specific conditions and regions across Ontario.

PATIENT AND SYSTEM-LEVEL BENEFITS OF REHABILITATIVE CARE

The following are examples of the role that rehabilitative care can play in home and community/ambulatory settings to achieve patient and system level benefits.

- **Ambulatory pulmonary rehabilitation is more cost-effective than in-home programs.** Centre-based pulmonary rehabilitation is preferred for its access to exercise equipment, additional psychosocial support provided in a group setting, and access to a multidisciplinary team and specialists.³
- **Home-based pulmonary rehabilitation may be recommended if there are barriers to participation in centre-based programs, including situations of limited resources and availability.** The services should be consolidated under the role of a single health care professional with expertise in pulmonary rehabilitation. All patients receiving home-based pulmonary rehabilitation should have a formal program of home exercise developed.³
- **Early supported discharge to rehabilitative care in the home is recommended for patients recovering from mild to moderate stroke;** it is intended as an alternative to a complete course of inpatient rehabilitation and may serve as a transition point to ambulatory or community stroke rehabilitation. Services should be provided five days per week at the same level of intensity as in the inpatient setting.⁴
- **Ambulatory rehabilitation or home-based rehabilitation is recommended for individuals recovering from a mild stroke.** However, factors that must be taken into consideration include: age, the availability of a caregiver, the severity of cognitive/perceptual needs, the presence of severe aphasia/dysphagia and profound inattention/neglect.⁴

- **Ambulatory rehab is recommended for most patients following joint replacement.** Ambulatory rehab provides access to specialized equipment and a team-based interprofessional approach, as well as the opportunity to provide rehabilitative care using a group modality that provides patients with a supportive, social environment. As such, it is more cost-efficient than home-based therapy.⁵ The optimal location for community rehabilitative care following total and hemi shoulder and reverse arthroplasty is in an outpatient ambulatory setting.⁶
- **Timely access to specialized ambulatory rehabilitation** is recommended for individuals with ongoing disability after traumatic brain injury to facilitate continued progress and successful community reintegration.⁷
- **A systematic referral to community programs for cardiac rehabilitation is vital** in improving patient's participation in supervised exercise programs. Cardiac rehabilitation services provided through an integrated interprofessional team, led by a program manager is strongly recommended for patients with coronary artery disease, particularly those with multiple modifiable risk factors. In order for patients to obtain optimal benefit from exercise programs, cardiac rehabilitation should commence within 30 days of hospital discharge.⁸
- **Patients who have experienced a hip fracture** and who are medically stable, cognitively intact, and able to mobilize short distances benefit from early supportive discharge to home supported by a community-based rehabilitation program.⁹ Rehabilitative care programs for patients with hip fracture have been shown to improve patient outcomes, including functional status, leg strength, health status, balance, mobility, instrumental activities of daily living and social functioning.¹⁰ Key components of community-based rehabilitation for patients following hip fracture include: education on safety and falls prevention; training to improve independence in self-care, transfers, ambulation and activities of daily living; balance and gait training; the provision of a progressive strengthening exercise program and information regarding environmental modifications.¹¹
- **Patients with chronic conditions benefit from rehabilitative care.** These patients are high users of health care; in Canada, 70% of Canadians 45 years or over have two or more chronic diseases and 80% of adult visits to GPs in Canada are due to chronic disease management.¹² Rehabilitative care has been shown to be effective in the prevention and management of chronic conditions (e.g., hypertension, emphysema, Type 2 Diabetes, Parkinson's, multiple sclerosis, arthritis) and optimizing quality of life.¹³

- **Cognitive rehabilitation and cognitive training is recommended for patients who have undergone cancer treatment** in a community-based (and/or inpatient program) to help patients improve their cognitive skills and find ways to cope with cognitive problems. Up to 75% of patients with a cancer diagnosis experience cognitive problems during treatment, and 35% have issues that continue for months after treatment has finished. Occupational therapy and vocational rehabilitation is recommended to help people with activities of daily living and job-related skills.¹⁴ Rehabilitative care can also address the functional issues that may arise from the illness and/or the treatment. Common symptoms include pain, weakness, lymphedema, anxiety and depression, loss of mobility and independence, fatigue and sleep disruption — all of which affect an individual’s ability to participate in self-care, ADLs, daily routines, work and avocational activities and can be improved through rehabilitative care.¹⁵
- **Seniors experiencing falls** accounted for 81% of injury related hospitalizations among seniors over 65 years of age in 2017/18.¹⁶ Rehabilitative care in the forms of multifactorial risk assessment, multiple-component group and home-based exercise programs, and home safety assessment and modifications, are effective in reducing the rate and/or risk of falls.¹⁷ It is also important to note that hearing loss is one of the risk factors for falls with the risk factor increasing substantially relative to small increments of hearing loss (i.e., 140% increased risk for every 10 decibels of hearing loss).¹⁸ Approximately one-third of older adults who fall also report hearing difficulties.¹⁹ Age-related changes can also include poorer balance due to changes in the vestibular system. Audiologists play a key role in the assessment and management of hearing and vestibular function.¹⁹
- **Seniors wishing to age in place** can benefit from individualized rehabilitative care services, such as occupational therapy, to increase or maintain their level of independence with activities of daily living (e.g., dressing, bathing, toileting, walking) and instrumental activities (e.g., shopping, communicating with family and friends, food preparation) and also reduce the need for conventional home care supportive services. The focus of the rehabilitative care services may include optimizing strength, balance and endurance; chronic disease self-management; nutrition management; identifying assistive devices and modifications to the home environment to increase safety; and providing strategies to reduce social isolation.^{20, 21}
- **Provision of specialized, coordinated, interprofessional acquired brain injury (ABI) in-home rehabilitation services results in better outcomes than generic services.** In a two-year follow-up study, persons receiving the specialized ABI rehabilitative care services had improved health status and community integration when compared to baseline. Those who received generic rehab services (i.e., not specialized in ABI) showed greater disability and received fewer rehab therapy services.²²

- Patients with musculoskeletal conditions** benefit from physiotherapy assessment and treatment in ambulatory care settings. Physiotherapy has been shown to reduce or eliminate neck pain, muscle weakness and loss of stability.^{23, 24} It can also reduce disability, promote recovery from injury and can reduce the risk of re-injury and sports-related injuries. Exercise therapy as a physiotherapeutic rehabilitation intervention reduces pain and improves activities of daily living in patients with musculoskeletal pain. It has also been shown to decrease workplace claims and loss of work time and increase physical functioning and earlier return to work.²³ Exercise intervention and conditioning provided by kinesiologists promotes safe movement mechanics, lowering the rate of injury and re-injury.²⁵

REHABILITATIVE CARE CONSIDERATIONS

Rehab post-injury/illness

Rehab post-injury or illness	
Patient characteristics	<p>Examples of patients seen in home or ambulatory rehab settings following injury or illness:</p> <ul style="list-style-type: none"> Patients following injury or surgical procedure or sudden onset, life-altering disability who have functional impairments resulting in decreased function (e.g., in activities of daily living, mobility, communication, cognition, swallowing) and who do not (or no longer)* require a bedded level of rehabilitative care to address these rehab needs. <p>* At the time of injury/illness, patients may have required an admission to hospital for acute care treatment and/or inpatient rehabilitative care.</p>
Patient population examples	<p>Patient populations include those who have experienced:</p> <ul style="list-style-type: none"> Brain injury, stroke, cancer, spinal cord injury, musculoskeletal conditions/injuries, multi-system complex health conditions, falls/fractures, work-related injuries An exacerbation of a chronic condition
How rehab can help	<ul style="list-style-type: none"> The role of community-based rehab, including in-home rehab, is to:

Rehab post-injury or illness	
	<ul style="list-style-type: none"> ○ Enable individuals with impairments and disabilities to reach and maintain their optimal physical, sensory, intellectual, psychological and social functional levels ○ Promote health and well-being and re-integration to community living ○ Improve quality of life. ● Rehabilitative care assessment and treatment may include, but is not limited to: <ul style="list-style-type: none"> ○ Assessing and developing treatment plan to address functional impairments, as needed ○ Linking patients with wellness/health promotion programs ○ Promoting adaptation of/to the home environment ○ Supporting timely transition from (e.g., early supported discharge) or preventing admission to acute or rehab hospital ○ Increasing self-management skills ○ Providing patient/caregiver education to enhance coping with impairments, activity limitations and participation restrictions. <p>Note: Patients receiving ambulatory and in-home rehab may or may not have participated in an inpatient rehabilitative program. The status of a previous referral to, or participation in, inpatient rehab should be confirmed with the patient.</p> <p>For information on the role of rehab in post-acute inpatient settings, see Section 5 of the primer.</p>
Rehabilitative care considerations / recommendations	See Appendix C: In-home and community-based rehabilitative care considerations
Where to access rehab	<p>Information on rehabilitative care programs and services can be found on the Rehabilitative Care Alliance's rehabcareontario.ca website. Information can be found for specific regions.</p> <p>For information pertinent to rehabilitative care post-injury or illness, look for information under the following categories:</p> <ul style="list-style-type: none"> ● Hospital-based outpatient rehabilitative care and subcategories such as: <ul style="list-style-type: none"> ○ Hospital-based outpatient therapy

Rehab post-injury or illness	
	<ul style="list-style-type: none"> o Specialized clinics and services • Community-based rehabilitative care and subcategories as applicable. In-home rehabilitative care can also be found under this category. • Condition or population-based rehabilitative care

Rehab for progressive/chronic conditions

Rehab for progressive/chronic conditions	
Patient characteristics	<ul style="list-style-type: none"> • Patients with a chronic disease/condition • Patients experiencing a flare-up or worsening of symptoms due to a debilitating event or progressive condition • Patient's caregivers may be experiencing strain or burnout and should be taken into consideration
Patient population examples	<ul style="list-style-type: none"> • Patients with a chronic disease or condition (e.g., arthritis, pain syndrome, chronic obstructive pulmonary disease, congestive heart failure and coronary arterial disease, certain types of cancer, neurological conditions among others)
How rehab can help	<ul style="list-style-type: none"> • Assess impairments or disability • Provide consultation regarding patient's functional needs/status • Provide treatment to improve, develop or restore lost or impaired function and reduce risk of hospitalization • Provide assessment, time-limited treatment and education to prevent functional decline/injury or maintain functional performance (e.g. strength, mobility, balance, fall prevention, etc.) • Provide intermittent re-assessment/time-limited treatment and/or periodic oversight to maintain and/or prevent further decline • Increase self-management skills and assist patient in optimizing independence, maintaining activity and quality of life • Assess need for, and use of, assistive devices

Rehab for progressive/chronic conditions	
	<ul style="list-style-type: none"> • Provide education to caregivers on illness/condition and provide strategies to optimize their support efforts and to lower their stress • Link patients to wellness-focused health promotion/prevention promotion programs in the community (e.g., group exercise, wellness promotion classes, swimming, walk-fit, yoga, tai-chi, pilates, peer support and friendly visiting programs)
Rehabilitative care considerations / recommendations	See Appendix C: Home and community-based rehabilitative care considerations
Where to access rehab	<p>Information on rehabilitative care programs and services can be found on the Rehabilitative Care Alliance's rehabcareontario.ca website. Information is available for specific regions.</p> <p>For information pertinent to rehabilitative care for progressive/chronic conditions, look for information under the following categories:</p> <ul style="list-style-type: none"> • Hospital-based outpatient rehabilitative care and community-based rehabilitative care (includes In-home rehabilitative care). Subcategories include: <ul style="list-style-type: none"> ○ Hospital-based outpatient therapy and community-based therapy ○ Prevention and education ○ Specialized clinics and services • Condition or population-based rehabilitative care

Rehab for Prevention

Rehab for Prevention	
Patient characteristics	<ul style="list-style-type: none"> • Individuals with reduced physical, cognitive and/or speech-language functioning (e.g., patients with neuromuscular, musculoskeletal, and cardio-respiratory, etc. conditions) who require rehabilitative care to prevent a decline in functional status and/or to promote their capacity to remain at home • Individuals may include:

Rehab for Prevention	
	<ul style="list-style-type: none"> ○ Seniors with multiple co-morbidities and complex health needs ○ Patients presenting with a change in functional status or functional decline ○ Individuals living in the community (home, retirement homes, long-term care homes) who have functional goals that can be met by participating in group intervention (e.g., falls prevention classes)
Patient population examples	<ul style="list-style-type: none"> ● Seniors with multiple co-morbidities and complex health needs who may be at risk for falls ● Patients presenting with a change in functional status or functional decline who may be at high risk of not being able to live independently ● Individuals, including caregivers, experiencing stress or burnout
How rehab can help	<ul style="list-style-type: none"> ● For seniors at risk of falls, a rehabilitative care approach involves conducting an individualized risk assessment (e.g., review of environmental hazards) and using the findings, as needed. This may include prescribing an exercise program (e.g., strength training, balance and gait training), advising on the use of assistive devices and providing education on how to improve environment safety, change positions safely, manage weather conditions and reduce the fear of falling. ● Patients (those at high risk of permanent loss of living independently in the community or of institutionalization if nothing is done) may benefit from a coordinated rehabilitative care approach to address a change in functional status. The RCA's Direct Access Priority Process supports early identification of individuals with restorative potential who require inpatient rehabilitative care and facilitates referrals directly from the community. ● Rehabilitative care can be provided to prevent a decline in functional/clinical status as a result of de-conditioning, a health condition, pain or aging. It can help to optimize independence, reduce the risk of injury and maximize overall quality of life. This may include, but is not limited to: <ul style="list-style-type: none"> ○ Linking patients to secondary prevention clinics (e.g., stroke clinics), self-management programs and wellness/health promotion programs ○ Assessing barriers/risks to patient's ability to maintain independence ○ Promoting adaptation of/to the home environment ○ Increasing self-management skills ○ Providing patient/caregiver education to enhance coping with impairments and to understand risk factors, activity limitations and participation restrictions.

Rehab for Prevention	
	<ul style="list-style-type: none"> For individuals (patients and caregivers) experiencing stress or burnout, a mindfulness-based stress reduction program can help reduce stress and pain levels, increase activity levels and improve self-esteem.
Rehabilitative care considerations / recommendations	<p>RCA Pathway to rehabilitative care for frail older adults presenting to Primary Care post-fall RCA's Direct Access Priority Process RCA Checklist to rule out Acute Cause of Recent Functional Decline NICE Guideline-Falls in older people: assessing risk and prevention (June 2013)</p> <p>See also Appendix C: Home and ambulatory rehabilitative care considerations</p>
Where to access rehab	<p>Information on rehabilitative care programs and services can be found on the Rehabilitative Care Alliance's rehabcareontario.ca website. Information can be found for specific regions and conditions.</p> <p>For information pertinent to rehabilitative care for prevention, look for information under the following categories:</p> <ul style="list-style-type: none"> Community-based or hospital-based rehabilitative care <ul style="list-style-type: none"> Rehabilitative care: community-based prevention and education Rehabilitative care: specialized clinics and services Community-based rehabilitative care <ul style="list-style-type: none"> Rehabilitative care: Fall prevention programs Condition or population-based rehabilitative care

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