Canadian Geriatrics Society

THE GERIATRIC DAY HOSPITAL: COMPREHENSIVE, MULTI-DISCIPLINARY GERIATRIC CARE FOR COMMUNITY-DWELLING OLDER ADULTS

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Abstract

The Geriatric Day Hospital is a community-based program or hospital outpatient service focused on preventing emergency department visits and avoidable hospital admissions (hospital diversion) that provides outpatient multi-disciplinary assessment, treatment, care planning and rehabilitation therapy to older adults living in the community.[1,2] The intent is to maximize independent function and reduce disability, as well as to avoid or delay hospitalization and nursing home placement. Older adults who are at risk of functional decline and institutionalization have multiple factors contributing to their vulnerability. These may include social isolation, unsafe housing, physical weakness and deconditioning, chronic pain, gait instability and falls, self-care deficits, mood disorders, cognitive decline, and often multiple interacting chronic medical diseases and multiple interacting medications. Other traditional single-disease-focused medical specialties and clinics are not designed to manage these multiple interacting risk factors that often lead to preventable loss of independence, avoidable hospitalization and premature nursing home placement. Attending to these potential domains is therefore vitally important, and the multi-disciplinary team working in Geriatric Day Hospitals is specially trained and dedicated to addressing this wide array of critical interacting issues in an integrated and comprehensive fashion.

Geriatric Day Hospitals have been in existence since 1952.[3] These are clinics and services described in the geriatric literature that may have different names but have the same core elements of care: Ambulatory Geriatric Unit, as in the AGe-FIT trial (see Ekdahl et al, 2015);[4] Geriatric Day Unit and Geriatric Day Program. Programs which incorporate principles of comprehensive geriatric assessment (CGA) leading to team-based care, goal setting, case management and direct delivery of therapies in an outpatient setting are akin to the Geriatric Day Hospital. Common elements of care include a multi-disciplinary assessment of medical, physical, psychological and social needs (i.e., biopsychosocial framework) and the formation of a person-centered plan of care (more information here) and rehabilitation, with a clear method of implementation.[5]

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What is the rationale for Geriatric Day Hospitals?

Geriatric Day Hospitals provide comprehensive geriatric assessments (CGA) leading to rapid diagnosis, either direct on-site provision of medical treatment and rehabilitation or the establishment of an outpatient medical treatment and rehabilitation plan to patients who are experiencing functional decline while living in the community. Decline may be precipitated by an acute medical illness with subsequent slow recovery (i.e., hospital-acquired disability[6] (see St. John, 2016)) or a gradual evolution of frailty. Multi-disciplinary, complex rehabilitation interventions improve functional status and increase social supports to enable continued independent living. Independent living and functional autonomy are highly correlated with quality of life in people of all ages and this persists in advanced age.3 In addition, interventions that reduce, delay or prevent disability and institutionalization (e.g., prevent hospitalization and prevent or delay nursing home placement) may lower health care system costs (see Tousignant et al, 2013).[7]

Older adults identify successful aging in a multi-dimensional construct.[8,9] Physical, functional, psychological and social health each contribute in important ways. Health care practitioners should likewise recognize that functional ability and independence in the senior population are multi-factorial. It is rare that a single issue compromises function and it is more common to have several often interacting contributing factors. A comprehensive geriatric assessment and treatment approach that simultaneously addresses multiple domains is therefore mandatory to achieve gains in overall functional status and independence. This requires a specially trained, multi-disciplinary team of clinicians that includes a geriatrician (a physician specializing in geriatric medicine), a nurse who acts as the case manager, a physiotherapist, occupational therapist, speech and language pathologist, dietitian and social worker. In sites that provide direct rehabilitation, a recreation therapist and health care aide are needed. Other team members including pharmacists and geriatric psychiatrists are also available in specific settings.

What is the evidence for Geriatric Day Hospitals?

Geriatric syndromes are multi-factorial health conditions that commonly occur in older adults. They are the accumulated result of diverse risk factors and are associated with morbidity, functional decline and loss of independence. Due to the multi-factorial nature of geriatric syndromes, a complex, multi-disciplinary treatment approach is required. There is evidence that complex, multi-disciplinary treatment approaches improve outcomes. Outcomes studied include reduced emergency room visits, decreased hospital admissions, prolonged independent living and delayed institutionalization, as well as improved quality of life.

Common geriatric syndromes that affect function and independence include gait disorders and falls, incontinence, social isolation, malnutrition, multiple interacting medical co-morbidities that cross other specialty boundaries, and polypharmacy resulting in medication side effects. There are shared risk factors for common geriatric syndromes. For example, the presence of upper and lower extremity weakness, decreased vision and hearing, and depression or anxiety, was shown to predict falls, incontinence and functional dependence in older adults (see Tinetti et al, 1995).[10] Inouye et al[11] found that four shared risk factors – older age, baseline cognitive impairment, baseline functional impairment and impaired mobility – were associated with five common geriatric syndromes: pressure ulcers, incontinence, falls, functional decline, and delirium. These features underlie the importance of complex multi-disciplinary interventions for achieving positive health outcomes in this complex population.

A systematic review of 89 randomized controlled trials, including 97,874 older adults living in the community compared community-based, multi-factorial interventions with usual care or minimal interventions (see Beswick et al, 2008).[12] Results demonstrated that comprehensive community care in a variety of formats is effective in preserving physical function and independence in older adults. Complex interventions were shown to reduce institutionalization, functional decline, falls and hospital use compared to usual primary care. In this review, multi-factorial interventions consisted of a team manager, usually a nurse, and an intervention by one or more disciplines, either in the patient's home (sometimes called domiciliary care), in a traditional outpatient setting, or in a Geriatric Day Hospital. Disciplines could include physiotherapy, occupational therapy, social

work, speech therapy or nutrition. As there were a variety of program formats in this review that resulted in positive outcomes, the ideal program format is not clear.

The most recent Cochrane Review of Geriatric Day Hospitals analyzed 16 randomized control trials involving 3,689 participants (see Brown et al, 2015).[13] The studies compared Geriatric Day Hospital care to alternative comprehensive care or to no comprehensive care. Alternate comprehensive care in these studies always included a comprehensive geriatric assessment. In this review, non-day-hospital comprehensive care included any of a number of formats, such as a comprehensive geriatric assessment by a geriatrician with referral to on-site or off-site rehabilitation services, inpatient multi-disciplinary rehabilitation, outpatient multi-disciplinary assessment and rehabilitation using traditional rehabilitation outpatient clinics, and outpatient multi-disciplinary assessment and rehabilitation provided in the home (domiciliary care). Compared to no comprehensive care, Geriatric Day Hospital care was associated with reduced death, reduced institutionalization, greater independence and higher levels of physical function compared to no comprehensive care during a median follow-up period of one year. There was no evidence for or against Geriatric Day Hospital care when compared to alternative forms of comprehensive care that often mirrored Geriatric Day Hospital design and function. This finding supports the above-mentioned review of 97,984 participants that also found that complex, multi-factorial interventions resulted in better outcomes than usual care, regardless of the setting of the complex intervention (see Beswick et al, 2008).[12] Therefore, it is clear that multi-disciplinary, complex care is important in the preservation of physical function and independence in older adults; however, it is less clear what format is ideal. Health care administrators must be mindful of the availability of non-day-hospital formats of comprehensive care, as they are not available in all jurisdictions and therefore may not be a viable option to Geriatric Day Hospital care.

An essential feature in the rehabilitative care of older adults is multi-disciplinary goal-setting and face-to-face team reviews. The presence of multiple disciplines under one roof, as seen in Geriatric Day Hospitals, facilitates care planning, communication, collaboration and program administration as co-siting optimizes efficiency of care.

Geriatric Day Hospital care is not a substitute for the primary care of frail older persons, but is intended to supplement, support and collaborate with primary care in the care of complex high risk seniors whose needs often exceed what primary care models can provide. Geriatric Day Hospitals are also not an alternative to comprehensive home care services but rather complement and guide such services. As such, Geriatric Day Hospitals can serve as the third component in community-based care model by providing specialist support of primary care and home care for complex seniors at high risk for avoidable hospitalizations.

Targeting: who benefits from Geriatric Day Hospitals?

Individuals over age 65 who are not acutely ill, and are at risk of social or functional decline while living independently at home placing them at risk for avoidable emergency department use, avoidable hospitalization (often with long lengths of stay and alternate level of care (ALC)) and avoidable/delayable nursing home placement, are expected to benefit from Geriatric Day Hospitals. Examples include individuals who have had a recent acute illness and slow recovery with risk of readmission to hospital (Hospital Acquired Disability (see St. John, 2016))[6] have had a recent decline in functional or health status, have a history of falls with risk of trauma, have few supports at home (social frailty) or have caregivers with high caregiver burden. The candidates should have problems in multiple domains, and require assessment and care by more than one discipline. Candidates must be motivated to participate in therapy and have adequate baseline stamina. Those who generally do not benefit are those who have very low stamina, those with severe dementia, those near the end of life and those with severe single organ dysfunction, such as end stage respiratory or heart disease. Conversely, the well elderly do not require the services of a Geriatric Day Hospital.

What does a Geriatric Day Hospital look like?

Setting
Most Geriatric Day Hospitals are situated in rehabilitation hospitals or acute care outpatient departments. They should have close access to laboratory and imaging services.

Structure of Care
Ideally, in Geriatric Day Hospitals providing on-site rehabilitation, there should be an exercise gym, a walking loop, a central dining room with lunch provided and space for group activities and exercises. All Geriatric Day Hospitals should have facilities for staff and family meetings as well as examination rooms and private office space for individual assessments and counselling.

Process of Care
Patients are referred by their primary care practitioner, home care services, outreach teams or inpatient hospital discharge planning teams. There should be regular assessment and team meetings to formalize a care plan and identify goals in all relevant domains. The patient and family should be involved in this process. A target time frame of intervention is determined and an anticipated discharge date is set. The care plan is reviewed in regular team meetings.

General Approach
Participants are required to actively engage in the various components of therapy. This includes consistent attendance and participation in activities that include: balance and strength exercises, walking, congregate meal, social activities, medical and medication review, functional status review and other individual interventions recommended by the team.

Characteristics of Successful Programs

The Geriatric Day Hospital is not a replacement for primary care or home care but rather supports, collaborates with and supplements these services. A strong working relationship with these services is therefore imperative. As well, the Geriatric Day Hospital should be integrated into a cohesive geriatric program that includes inpatient and community components; there should be good working relationships with outreach teams, community services and inpatient units/consult teams. This is particularly important when a patient requires admission to an inpatient unit. A cohesive, integrated program of geriatric services will facilitate access to inpatient beds when needed and in turn expedite discharge and follow up in the Geriatric Day Hospital to promote safer, more durable and earlier discharges from hospital to prevent avoidable readmissions.

Summary

The Geriatric Day Hospital is an outpatient (i.e., ambulatory care) program with a dedicated multi-disciplinary team of health care providers who work together in one physical space to efficiently maximize function in vulnerable high risk older adults living in the community. The overall goals of the Geriatric Day Hospital are to prevent avoidable decline and to improve physical function to allow for continued independent living. Geriatric Day Hospitals are supported by evidence that clearly demonstrates they improve functional status, reduce acute care admissions and delay the need for long-term care. While not well studied to date, this suggests that Geriatric Day Hospitals help with hospital diversion, help decrease hospital overcrowding and thereby decrease alternate level of care (ALC) rates, and help delay or prevent long-term care placement – all potentially contributing to significant cost savings for the health care system while meeting the goals of seniors to live safely at home for as long as possible.

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