



Baseline Functional Status

What is baseline functional status?

Baseline functional status is defined by two core concepts:

1. **Functional status** – This refers to the behaviours necessary to maintain independence in daily life and encompasses physical, cognitive, and social functioning¹. Functional status measures include mobility, activities of daily living (ADLs), instrumental ADLs (IADLs), and cognition.
2. **Baseline** - Temporally, baseline functional status is frequently defined as a patient's ability to perform basic and instrumental ADLs two weeks prior to onset of the current illness/presenting complaint¹⁻¹². The identified duration of time is used so as to eliminate possible effects of the illness causing a change in function¹.

Why is baseline functional status important?

For older adults, retrospective reports of functional capacity can help to predict future outcomes. Interpreting functional status in the context of an individual's baseline is of considerable prognostic importance¹³.

For example, when considering an older adult's admission to hospital, functional ability can be quite variable during the course of an acute illness and it is critical that it be interpreted within the context of an individual's baseline^{11,14}. Not only does this provide an opportunity to eliminate possible effects of the illness causing admission, but the relative change in function between baseline and admission also acts as a powerful predictor of mortality and other health related outcomes⁹⁻¹². Without this knowledge, providers are inherently limited in their ability to identify and treat contributing sub-acute conditions, develop appropriate approaches to intervention, and mitigate long-term, life-altering functional loss^{5,6}.


Individual care planning must first consider whether recovery to baseline is likely and then subsequently how that might fit with patient and carer preferences³.

How is baseline functional status determined?


At present, there is no gold standard in practice for determining an older adult's baseline functional status. Different opportunities exist to help introduce a consistent and standard means to assessing baseline function across the continuum. One possibility involves use of the Clinical Frailty Scale (CFS). The CFS is a well-recognized scale used to grade an individual's degree of frailty that is scored based on an older adult's baseline health state¹⁵. In September 2020, Kenneth Rockwood, MD and Olga Theou, PhD published a guide for using the CFS (<https://cgjonline.ca/index.php/cgj/article/view/463/577>) which describes the scale as a "judgement-based measure of an individual's baseline state"¹⁵. It is critical to note that the authors clearly identify that the CFS must be used carefully and in combination with clinical judgement¹⁵. The article provides additional resources that could be used in conjunction with the CFS, including a paper on the Pictorial Fit-Frail Scale (<https://www.dal.ca/sites/gmr/our->

[tools/pictoral-fit-frailty-scale.html](https://www.nesgc.ca/tools/pictoral-fit-frailty-scale.html))¹⁶. The Pictorial Fit-Frail Scale is currently being evaluated to determine if it can be used to facilitate the initial assessment of baseline function³.


Through implementation of the Assess and Restore Guideline, 2014¹⁷ and the Rehabilitative Care Alliance’s (RCA) Direct Access Priority Process (DAPP)¹⁸, the North East Specialized Geriatric Centre (NESGC) developed a process for determining an individual’s baseline functional status as the cornerstone of restorative potential. The following set of questions helps to identify any specific changes in functional status that an individual has experienced:

 North East Specialized Geriatric Centre Centre gériatrique spécialisé du Nord-Est	
Baseline Functional Status	
Has there been a change?	
<p><i>Have you noticed a "change in your ability to do things you were previously able to do?"</i> <i>E.g. walk, bath, groom, etc.</i></p>	<ul style="list-style-type: none"> NO - Important proactive opportunity to consider interventions aimed at prevention and/or maintenance. Depending on the individuals trajectory (e.g. healthy ageing, end of life), further goal setting may be indicated (e.g. medical management, prevention of functional decline, goals of care, transition planning). YES – Regardless of location within the healthcare continuum, it is critical to gain further information about the change to inform the most appropriate trajectory of care based on individual need.
What has changed?	
<ul style="list-style-type: none"> Basic Activities of Daily Living (ADL) – e.g. dressing, grooming, bathing, toileting Mobility – e.g. ambulation, transfers, stairs Instrumental ADL (IADL) – e.g. meal preparation, medication management, cleaning, driving, groceries Cognition 	
When did it change?	
<ul style="list-style-type: none"> Acute - Less than 6 weeks Sub-Acute - Within 3 months Chronic/Gradual - Within 1 year Chronic - 1 year or more 	
Why did it change?	
<ul style="list-style-type: none"> Acute event e.g. stroke, ABI, amputation Functional decline due to a reversible condition e.g. acute medical illness Functional decline due to a non-reversible condition e.g. terminal illness, disease progression Other e.g. social, environmental factors 	

NESGC has also developed an infographic to facilitate knowledge translation and implementation within clinical environments:



North East Specialized Geriatric Centre
Centre gériatrique spécialisé du Nord-Est







Health Sciences North
Horizon Santé-Nord

Restorative Potential?

HAS THERE BEEN A CHANGE IN FUNCTION?

<input checked="" type="checkbox"/>	YES	<input type="checkbox"/>
<input type="checkbox"/>	NO	<input type="checkbox"/>

WHAT HAS CHANGED?

	Instrumental Activities of Daily Living (IADL's)	<input type="checkbox"/>
	Basic Activities of Daily Living (ADL's)	<input type="checkbox"/>
	Mobility & Transfers	<input type="checkbox"/>
	Cognition	<input type="checkbox"/>

WHEN DID IT CHANGE?

Acute	Within the last 6 Weeks	<input type="checkbox"/>
Sub - Acute	Within the last 3 Months	<input type="checkbox"/>
Chronic Gradual	Within 1 Year	<input type="checkbox"/>
Chronic	1 Year or More	<input type="checkbox"/>

WHY HAS IT CHANGED?

Key Reason	Recent Acute Event	<input type="checkbox"/>
Key Reason	Functional Decline	<input type="checkbox"/>

What is the plan to address the change?

References

1. Bogardus ST, Towle V, Williams CS, Desai MM, Inouye SK. *What Does the Medical Record Reveal about Functional Status? A Comparison of Medical Record and Interview Data.*
2. CM B, CS L, SR C, et al. Recovery of activities of daily living in older adults after hospitalization for acute medical illness. *J Am Geriatr Soc.* 2008;56(12):2171-2179. doi:10.1111/j.1532-5415.2008.02023.x
3. Pulok MH, Theou O, Van Der Valk AM, Rockwood K. The role of illness acuity on the association between frailty and mortality in emergency department patients referred to internal medicine. *Age Ageing.* 2020;49:1071-1079. doi:10.1093/ageing/afaa089
4. Jarrett PG, Rockwood K, Carver D, Stolee P, Cosway S. Illness Presentation in Elderly Patients. *Arch Intern Med.* 1995;155(10):1060-1064. doi:10.1001/archinte.1995.00430100086010
5. Huang H-T, Chang C-M, Liu L-F, Lin H-S, Chen C-H. Trajectories and predictors of functional decline of hospitalised older patients. *J Clin Nurs.* 2013;22(9-10):1322-1331. doi:10.1111/jocn.12055
6. Palleschi L, De Alfieri W, Salani B, et al. Functional recovery of elderly patients hospitalized in geriatric and general medicine units. The PROgetto DImissioni in GERiatria Study. *J Am Geriatr Soc.* 2011;59(2):193-199. doi:10.1111/j.1532-5415.2010.03239.x
7. Siebens H, Aronow H, Edwards D, Ghasemi Z. A randomized controlled trial of exercise to improve outcomes of acute hospitalization in older adults. *J Am Geriatr Soc.* 2000;48(12):1545-1552.
8. Counsell SR, Holder CM, Liebenauer LL, et al. *Effects of a Multicomponent Intervention on Functional Outcomes and Process of Care in Hospitalized Older Patients: A Randomized Controlled Trial of Acute Care for Elders (ACE) in a Community Hospital.* doi:10.1111/j.1532-5415.2000.tb03866.x
9. Liebszeit D, King B, Bratzke L, Boltz M. Improving Functional Assessment in Older Adults Transitioning from Hospital to Home. *Prof Case Manag.* 2018;23(6):318-326. doi:10.1097/NCM.0000000000000293
10. Kleinpell RM, Fletcher K, Jennings BM. *Reducing Functional Decline in Hospitalized Elderly.* Agency for Healthcare Research and Quality (US); 2008.
11. Covinsky KE, Pierluissi E, Johnston CB. Hospitalization-associated disability "She was probably able to ambulate, but i'm not sure." *JAMA - J Am Med Assoc.* 2011;306(16):1782-1793. doi:10.1001/jama.2011.1556
12. Hoogerduijn JG, Buurman BM, Korevaar JC, Grobbee DE, de Rooij SE, Schuurmans MJ. The prediction of functional decline in older hospitalised patients. *Age Ageing.* 2012;41(3):381-387. doi:10.1093/ageing/afs015
13. Covinsky KE, Palmer RM, Counsell SR, Pine ZM, Walter LC, Chren M-M. Functional Status Before Hospitalization in Acutely Ill Older Adults: Validity and Clinical Importance of Retrospective Reports. *J Am Geriatr Soc.* 2000;48(2):164-169. doi:10.1111/j.1532-5415.2000.tb03907.x
14. Greysen SR, Covinsky KE. Functional status – an important but overlooked variable in the readmissions equation. doi:10.1002/jhm.2170
15. Rockwood K, Theou O. Using the Clinical Frailty Scale in Allocating Scarce Health Care Resources. *Can Geriatr J.* 2020;23(3):254-259. doi:10.5770/cgj.23.463
16. Theou O, Andrew M, Ahip SS, et al. The Pictorial Fit-Frail Scale: Developing a visual scale to assess frailty. *Can Geriatr J.* 2019;22(2):64-74. doi:10.5770/cgj.22.357
17. Ministry of Health and Long Term Care. *Assess and Restore Guideline.*; 2014.
18. Rehabilitative Care Alliance. Direct Access Priority Process (DAPP) | Rehab Care Alliance. Published 2014. Accessed September 19, 2020. <http://www.rehabcarealliance.ca/direct-access-priority-process-dapp>