

**Measures of independence for stroke survivors- Evidence Summary**

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#  1. Introduction

## 1.1 Description of search:

The purpose of this review is to identify the best outcome measurement for independence/functional status for patients recovering from a stroke.

The review aims to inform the creation of a measure that can be used specifically in community hospitals to show dependency and also (possibly a different measure) that can be used in the community alongside the therapy outcome measure (TOMs).

## 1.2 Databases searched:

NICE Evidence, Pubmed, AMED, Trip pro, Google site/ Google advance, references from relevant literature.

## 1.3 Key terms:

Stroke, outcome/s, scale, measurement, independence, interdependence, function, dependence, community hospital, community, assessment, cognitive assessment, functional assessment, movement.

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#  2. Evidence Summary

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| --- | --- |
| **Measures of independence** | **Frameworks** |
| Individual goal setting, tailored to the needs of the patient. (can include cognitive functions and mobility) | Barthel, Rivermead Mobility Index, Rivermead Behavioural memory test. |
| Mental health | Mental capacity act, Geriatric depression scale [[1]](#footnote-1), Montgomery-Asberg Depression Rating Scale (MADRS)[[2]](#footnote-2) , Patient Health Questionnaire (PHQ-2 and PHQ-9)[[3]](#footnote-3)[[4]](#footnote-4)[[5]](#footnote-5) |

## 2.1 Current frameworks for measures of independence

*Early supported discharge (ESD) enables appropriate stroke survivors to leave hospital ‘early’ through the provision of intense rehabilitation in the community at a similar level to the care provided in hospital. An ESD team of nurses, therapists, doctors and social care staff work collaboratively as a team and with patient and families, providing intensive rehabilitation at home for up to 6 weeks, thereby reducing the risk of re-admission into hospital for stroke related problems and increasing independence and quality of life with support the carer and family.[[6]](#footnote-6)*

The National Institute of Neurological Disorders and Stroke (2020) states that the types and degrees of disability that follow a stroke can cause various problems, dependent on which area of the brain is damaged. Generally stroke can cause five types of disability:

* Motor control
* Sensory Disturbances (including pain)
* Aphasia
* Problems with thinking and memory
* Emotional disturbances

Outcome measures can be used in acute hospital settings but also in community hospitals and community settings with stroke rehabilitation to determine the indicators of independence for the patient.

In 2006 Linda Dobrzanska led six-month pilot project in Bradford to measure the effectiveness of stroke rehabilitation services conducted in a community hospital. Staff at the community hospital received specific stroke care training and the following outcome measure tools [which] were seen as best appropriate to measure patient development in the community hospital setting. All outcome measures showed positive results.[[7]](#footnote-7)

### 2.1.1 Barthel

*The Barthel Index was considered the best available measurement of the activities of daily living. This simple index of independence in the basic physical functions underlying normal living (continence, mobility, washing, dressing and diet) is useful in monitoring improvement in the rehabilitation of chronically ill patients. (Mahoney and Barthel 1965).*

### 2.1.2 Rivermead Mobility Index

*The Rivermead Mobility Index measures patients’ ability to move independently. It does not measure the effective use of a wheelchair or mobility when aided by someone else. It was developed at the Rivermead Rehabilitation Centre in Oxford and is a valid score for assessing mobility in stroke patients (Commil and Wade 1991).*

The 2016 Clinical Guideline for Stroke also highlighted the use of the **Rivermead Behavioural Memory Test (RBMT)** to test memory outcomes. However they concluded that “further research is needed to establish the clinical effectiveness (at the level of activities or participation) and acceptability of memory rehabilitation approaches).”3

# 3.0 Identified agreed and achievable goals

Agreed and achievable goals are often used in stroke rehabilitation and can be used in community hospitals and community settings where the patient is reviewed on a regular basis. Specific, measurable, realistic, achievable and timely personalised goals are to be agreed with the stroke survivor if possible (and carer where appropriate) which are reviewed every 4-6 weeks.[[8]](#footnote-8)

Goal Attainment Scaling

Measurement through GAS was first introduced in the 1960s by Kirusek and Sherman for assessing outcomes in mental health settings. Since then it has been modified and applied in many other areas including: Elderly care settings, Chronic pain, Cognitive rehabilitation, Amputee rehabilitation.[[9]](#footnote-9)

GAS offers a number of potential advantages as an outcome measure for rehabilitation. As goal-setting is already a part of routine clinical practice in many centres, it builds on this already established process to encourage: communication and collaboration and between the multi-disciplinary team members as they meet together for goal-setting and scoring patient involvement - there is emerging evidence that goals are more likely to be achieved if patients are involved in setting them. Moreover, there is also evidence that GAS has positive therapeutic value in encouraging the patients to reach their goals.1

A theory-based goal setting framework (G-AP) was developed in 2013 to provide a structured approach for goal setting for stroke patients in community hospitals and home rehabilitation. The G-AP framework includes the 4 following stages:

* Goal negotiation
* Action plan
* Action/Behaviour
* Appraisal/Feedback/Decision making

# 4.0 Mental Health

Mental health and mood can change for patients poststroke. All stroke patients should be assessed for mood disorder with a simple brief standardised measure. Patients with severe symptoms should be considered for referral for specialist assessment and treatment by mental health services.[[10]](#footnote-10)

The NHS stroke service configuration decision support guide states that staff who carry out 6 week, 6 month or annual reviews in community settings for stroke survivors should be aware of the Mental Capacity Act and it’s implications as part of their core education and training.[[11]](#footnote-11)

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