

## What is LUNS?

LUNS is a 22 item questionnaire designed to identify longer-term unmet needs of stroke survivors living at home. It aims to be comprehensive and covers the following areas:

- Information needs *eg* information on stroke, financial advice
- Services *eg* personal care, home adaptations, medication review
- Emotional and social consequences *eg* depression, driving, employment
- Health problems and related issues *eg* pain, incontinence, falls

LUNS is quick and simple for stroke survivors to complete and for health care professionals to interpret. Each question has a yes / no response: a response of “no” indicates either that the need is not present or that the need has been met; a response of “yes” indicates that the need is present and unmet. LUNS can be completed with the help of a family member or friend if required. Approximate average completion time by stroke survivors is 6 minutes.

## Development and Evaluation of LUNS

LUNS was developed by an iterative process involving systematic review of the stroke literature, semi-structured interviews and focus groups with stroke survivors and peer review, ensuring that LUNS questions reflect the stroke experience *ie* **face and content validity**.

LUNS was evaluated in a national multicentre study of 850 stroke survivors, 23% of whom had cognitive or communication impairments, living at home at 3 to 6 months post stroke. The median number of unmet needs was 4 (range 0-19) and prevalence of individual unmet needs ranged from 3 to 58%. The postal response rate to questionnaire packs containing LUNS was 69%, and missing data were minimal and comparable for all questionnaires in the pack, demonstrating the **acceptability** of LUNS. Identifying unmet need on LUNS items was associated with poorer health status measured by the other questionnaires (GHQ12, SF12, Frenchay Activities Index), suggesting evidence for the **concurrent validity** of LUNS. When LUNS was completed twice at an average interval of 2 weeks, moderate to good agreement was obtained for responses to the items, indicating **test-retest reliability** of LUNS.

## Use of LUNS

LUNS is ideal to be completed by a stroke survivor as part of a 6 month or annual post stroke review. Reviews which include assessment of unmet needs are recommended by the National Stroke Strategy (QM14) and Accelerating Stroke Improvement Programme (ASI 8).

LUNS can be used to survey whether a community stroke service is meeting the longer-term needs of the local population (National Stroke Strategy QM13). LUNS has not yet been evaluated for its ability to measure service improvements (sensitivity to change).

For more information see [www.lotscare.co.uk](http://www.lotscare.co.uk) or contact [a.forster@leeds.ac.uk](mailto:a.forster@leeds.ac.uk)