The University Of Queensland
AUSTRALIA

CREATE CHANGE

Case Study

An illustration of data inefficiency in the aged and community care system in Australia

Summary

This case study examines how an older person's need for assistance in walking is documented throughout the intake, eligibility assessment, entry to care and within-care journey through aged care in Australia.

Across the spectrum of assessments that are integral to aged care, specific clinical phenomena are recorded in a variety of ways. Here, the need for assistance with walking is provided as an example to illustrate this data inefficiency. In this case study, this clinical concept is recorded in 5 consecutive contexts using 8 separate observations which utilise 6 different formats.

None of these measures is drawn from a recognised health terminology system. Some are elements of a scale or scales that characterise activities of daily living. Some of these scales are widely used, particularly in rehabilitation settings.

These observations clearly identify the need to standardise measurement across the aged care program (and beyond). Lack of standardisation limits the ability for interoperable sharing and transfer of information among health care professionals and the agencies that support them.

This report concludes with a statement of the features of a desirable system to record clinical phenomena in aged care and makes specific reference to and recommendations regarding a solution.

The Case Study

Mrs Audrey Smith lives at home alone. Over the past year, she has become increasingly frail. She has experienced several falls and now needs the assistance of one person to walk safely. She can walk about 30 metres; she cannot manage stairs. She and her family are considering the need for care in an aged care facility.

My AgedCare

Her daughter contacts MyAgedCare through the web portal (www.myagedcare.gov.au). She clicks 'I'm looking into aged care services' and applies for an 'assessment online'. With regard to mobility, she checks the question: 'Can they walk easily?'

Assessment 1: Mobility question within the MyAgedCare intake questionnaire [1]

Can they walk easily?

- Either by themselves or just using a simple aid like a walking stick
- Somewhat, with some help such as walking frame or wheelchair ☑
- Bed bound or unable to propel a wheelchair

Eligibility Assessment

She is referred to the Aged Care Assessment Service to understand her needs and determine her suitability and eligibility to live in a residential aged care facility.

An assessor visits her at home and records her mobility using the Barthel Index item 'MOBILITY'

Assessment 2a: Mobility assessment utilised by the local ACAT service

Mobility (on level services):
0 = immobile
1 = wheelchair independent, including corners, etc.
2 = walks with help of one person (verbal or physical)
3 = independent (but may use any aid, e.g., stick)

The assessor also uses the 'National Screening and Assessment Form (NSAF) User Guide – May 2018' [2] to complete an assessment of walking as follows:

Assessment 2b: Mobility assessment within the National Screening Assessment Form

Consider/record:

- **Without help:** The client walks with no walking aids or is independent with mobility using a walking stick or similar.
- With some help: The client:
  - *Uses a walking stick but it is not meeting their needs and the client is at risk of falling.*
  - *Walks with the assistance of one other person and/or uses a walking frame, crutches or aids that require the use of both arms.*
  - *Walks with a quad stick or one crutch and is reliant on this aid for mobility at all times.*
  - *Has foot problems (such as overgrown/ingrown toenails, calluses, bunions, amputations) that impact on their ability to walk.*
  - *Has breathing problems and/or uses oxygen that impacts on and limits their mobility.*
  - *Uses a wheelchair without the help of others (able to self- propel a manual wheelchair or use an electric wheelchair).*
- **Completely unable:** The client is wheelchair bound and is unable to self-propel, is bed bound or needs assistance of more than one person to mobilise.

Note: Assessors can select one of the three responses, however the detailed text for the second choice is provided to define the choice and is not submitted as a response choice. Assessors must also write their own comments as free text.

If Mrs Smith is also going to be recommended for Residential Respite Care approval, a De Morton Mobility Index (DEMMI) – Modified is also required to be completed at the time of assessment. (See AN-ACC following).

The full NSAF assessment is sent to the Australian Government Department of Health and Aged Care (DHAC) at completion.

Admission to Care

At admission to the residential aged care facility, the admitting nurse completes an assessment using the organisation's preferred clinical information system. The nurse records walking ability by checking a box as follows [3]:

Assessment 3: Walking ability at admission to care (mocked up example)

Walking Needs assistance to walk ☑

(Note, this is a typical example of a checkbox approach found in commercial software systems used by RACFs)

[2] My Aged Care – National Screening and Assessment Form User Guide https://www.health.gov.au/resources/publications/my-aged-care-national-screening-and-assessment-form-user-guide?language=en

[3] A recent review of Clinical Systems in use in Residential Aged Care conducted by the Aged Care Industry Information Technology Council for the Australian Digital Health Agency identified 280 different systems in operation within Australia. These systems generally use bespoke terminologies to describe clinical phenomena, adding to the overall complexity of data configurations in the industry.

Casemix Classification (AN-ACC)

A few days after admission, an external (DoHAC) assessor visits the facility to perform an Australian National Aged Care Classification (AN-ACC) assessment [4] which will generate a casemix classification and determine the level of subsidy.

Need for help in walking is recorded in two ways within the AN-ACC as follows:

Assessment 4a: De Morton Mobility Index (DEMMI) – Modified – within the AN-ACC assessment

Subsection: Walking
Walking

- ☐ unable OR
- ☐ min assist OR
- ☐ supervision
- ☐ independent with gait aid
- ☐ independent without gait aid

and...

Assessment 4b: Australian Functional Measure within the AN-ACC assessment

Subsection: Locomotion (Walk or wheelchair)
A. Independent

7 = Complete independence (timely, safely)
6 = Modified independence (device)

B. Modified dependence

5 = Supervision (subject = 100%+)
4 = Minimal assistance (subject = 75%+)
3 = Moderate assistance (subject = 50%+)

C. Complete dependence

2 = Maximal assistance (subject = 25%+)
1 = Total assistance (subject = less than 25%)

Quality Indicator Reporting

Three weeks after entering the facility, the DoHAC requires reporting of quality indicators, one measure of which is decline in functional status.

To calculate this indicator, the DoHAC requires that the facility measures function using the Collin version of the Barthel Index [5], which includes a mobility measure, as follows:

Assessment 5: Mobility

0 = immobile

1 = wheelchair independent, including corners, etc.

2 = walks with help of one person (verbal or physical)

3 = independent (but may use any aid, e.g., stick)

Recording of Other Clinical Phenomena

In this document, an illustration of the variation in measures to record a common clinical issue (i.e., need for assistance in walking) is illustrated. This variation exists for the majority of other common clinical issues that are documented across these 5 assessment settings. For example, bladder continence, ability to see and hear, cognitive function, etc.

[4] AN-ACC Reference Manual and AN-ACC Assessment Tool https://www.health.gov.au/resources/publications/an-acc-reference-manual-and-an-acc-assessment-tool?language=en

[5] National Aged Care Mandatory Quality Indicator Program Manual 3.0 – Part A. Page 63. https://www.health.gov.au/resources/publications/national-aged-care-mandatory-quality-indicator-program-manual-30-part-a?language=en

Conclusion

Discussion

The need for mobility assistance is recorded 8 times in 6 different formats across 5 assessment events within the Australian aged care program. None of these formats adhere to any known terminology standard.

One of the measures is designed for self-report, the remainder are scored by a professional assessor. Since none of the latter measures of mobility are situation specific, they could be recorded using the same measure. The variation appears to have arisen because there is no agreed format utilised by the designers of each assessment schedule. Each has been designed in isolation, without consideration of consistency, continuity of care, ease of training and interpretation or reference to a data standard.

Ideally, this mobility item could be scored in exactly the same format across 4 of the 5 contexts. The intake self-report should be configured in a format that closely matches the observer-based format. In regard to the use of self-report measure, there are suitable items available that represent a valid comparison between self-report and observer-based formats.

Clinical phenomena such as the need for assistance in walking should be recorded in the same format in every assessment context. This then requires selection of suitable data items for each phenomenon. . Ideally, the data item should:

- Have proven good psychometric properties, including face validity, inter-rater reliability and responsiveness (to change).
- Have well designed scoring specifications, embedded in well-developed training materials.
- Be in common use in various aged and community care settings, internationally.
- Be a member of a panel of items that have similar design characteristics for ease of training and interpretation.
- Be suitable for multiple clinical and administrative functions, aligned with the 'collect once, use many times' principle.

A Solution: Comprehensive Geriatric Assessment System

A comprehensive geriatric assessment (CGA) system, incorporating a suite of validated assessment tools, if applied to the Australian aged care system, would solve the data inefficiency problem, with numerous other benefits.

To generate a system-wide consistent observation, identified CGA systems in which they are embedded need to be given immediate consideration by key policy makers.

Recently the Aged Care Industry Information Technology Council (ACIITC) commissioned The University of Queensland Centre for Health Services Research (CHSR), to identify and review assessment systems available on the international market for potential use in Australian aged and community care.

The CHSR team conducted a global survey of aged care assessment systems, and undertook a comparative review, identifying two strong contenders internationally . The review found that the best available systems for aged care are members of the InterRAI suite of assessment systems - specifically the InterRAI Home Care and the InterRAI Long Term Care Facility systems.

Similar surveys have been conducted by Belgium, Canada and New Zealand prior to their respective implementation of nation-wide data standardisation and assessment systems across health and community care.

ACIITC and CHSR envisage that this survey and evaluation of comprehensive geriatric assessment systems for residential and community aged care will form the basis for further industry and government discussions. These will be undertaken with a goal of paving a way forward to achieve data standardisation for aged and community care.

In the current aged care program, important clinical concepts are unnecessarily recorded in multiple different formats. By adopting comprehensive geriatric assessment (CGA) system across the aged and community care program, recording of these phenomena could be standardised, enabling direct comparison across settings and across the person's journey, and significant reduction in data burden.

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