

ARE WE *STILL* NEGLECTING NEGLECT?

Zhiyao Che, Lexi Wilson, Vivian Ghazarian, Maria Gonzalez

University of Toronto COG401

Introduction

What is Neglect?

Neglect is the failure to attend to one side of space. It is a condition which tends to occur most commonly following a stroke. Neglect has an approximate incidence rate of 23%.

How is it Assessed?

The Canadian Stroke Best Practice Guidelines (2015) recommend that stroke patients undergo assessment by an interprofessional team using validated, standardized assessment tools within 48 hours of hospital admission. This includes assessment of all stroke-related impairments, including cognitive impairments such as neglect. However, neglect can be difficult to detect because symptoms could be associated with hemisensory loss or hemianopia. Nevertheless, neglect is a significant predictor of functional outcome, and persistent neglect can inhibit complete post-stroke rehabilitation. For this reason, an accurate and timely assessment of neglect is essential to post-stroke care, especially given that it is an under diagnosed condition.

To assess neglect in stroke patients, clinicians use a variety of standardized and non-standardized testing methods which may include figure copying and freehand drawing, line bisection, reading and writing, and target cancellation tasks. When employed, these assessment tools are accurate and can be used reliably to make a diagnosis.

What is the problem?

Research on Canadian hospitals and stroke rehabilitative centres has shown that neglect assessments are not carried out as routinely as they should be; when they are, it can be difficult to determine whether symptoms are being ignored or not being recognized at all.

Objective of this Research:

Most research pertaining to this issue was conducted prior to 2011. This project aims to examine whether the state of affairs has improved in Canadian hospitals.

Methods

Questionnaire

- Using SurveyMonkey, we administered a questionnaire to 11 clinicians from the stroke departments of two Canadian hospitals
 - Foothills Medical Centre (Calgary, Alberta)
 - Toronto Western Hospital (Toronto, Ontario)
- Data was collected anonymously
- Composed of 10 questions:
 - In a typical week, approximately how many stroke patients do you treat?
 - In a typical week, approximately how many patients do you assess for neglect?
 - In a typical week, approximately how many patients with neglect do you encounter?
 - Which methods do you use to assess neglect?
 - Do you employ a standardized tool or scale to measure neglect. Please specify.
 - Does a standardized assessment tool that you use (e.g. NIHSS) include neglect as a measure? Please specify.
 - When do you screen for neglect?
 - < 48 hours after hospital admission (if possible)
 - > 48 hours after hospital admission
 - N/A: I do not assess for neglect at any standardized time point
 - In your clinical experience, why is it important to diagnose and treat neglect? What are the consequences if it is missed (in terms of outcomes)?
 - In your clinical experience, how can neglect impede certain outcomes in recovery, or otherwise negatively affect rehabilitation?
 - Do you have any other comments on post-stroke neglect or its effects on rehabilitation?

Literature Comparison

- Using this data, a comparison between current neglect assessment procedures and those previously described in the literature was drawn.
- Literature used: Menon-Nair et al. (2006)
- We investigated:
 - Standardized/non-standardized assessment methods for neglect
 - Time course of neglect assessment
 - Prevalence of neglect assessment in stroke patients

Results

Prevalence of Neglect Assessment

- Wide Variation:
- some assessed up to 100% of the time
 - others only assessed 25% of the time
 - most assessed ~10-25% of the time

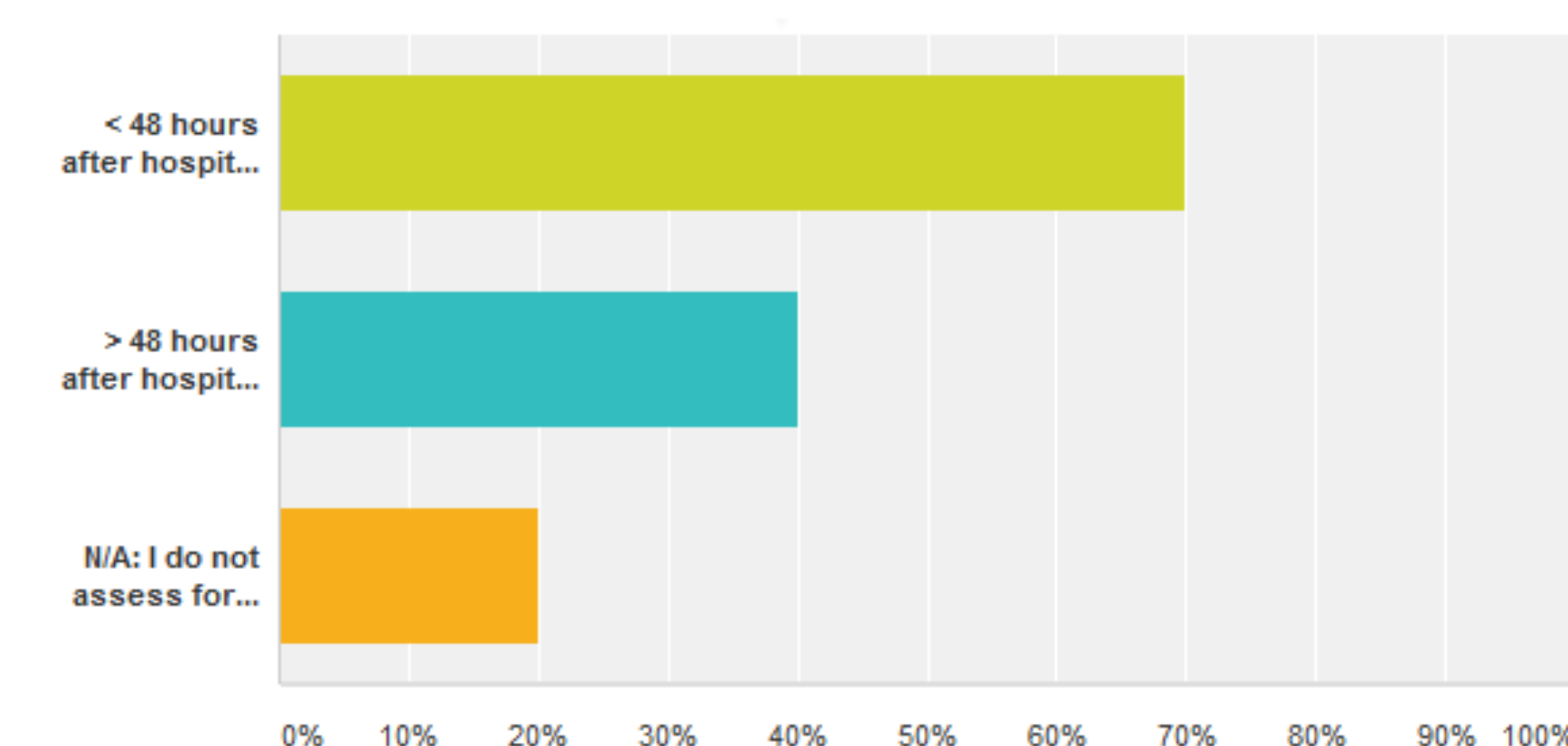
Methods for Assessing Neglect

- Most common method
- non-standardized bedside neurological exam (100%)
 - Tests for extinction and head/gaze deviation
 - Standardized line bisection & clock drawing tests (40%)
 - NIH stroke scale (18%)
 - Observe their ability to navigate space (9%)

Time Course of Assessment

- High response for “within 48 hrs of intake”: (70%)
- More than 48 hours after admission (40%)
 - No standardized screening time (20%)

When do you screen for neglect?



On the Importance of Treating/Diagnosing Neglect

- Affects Post-Rehabilitation: (66%)
- Has negative consequences (44%)
 - Impairs driving (75%)
 - Impaired functioning: work, community, etc. (75%)
 - Needed for neural localization (22%)

Note: Our results are from a limited questionnaire and may not be representative of all hospitals. In order to get more accurate account of neglect procedures a more comprehensive analysis is needed. This is a qualitative glance of current hospital situations.

Conclusions

Similarities/Differences with Menon-Nair et al. (2006)

Much like Menon-Nair et al. (2006), our findings show a large degree of variation in assessment. In general, the present study demonstrates an apparent improvement in assessment, but not in treatment, of neglect. The finding that non-standardized methods of assessment are the most common correspond to Menon-Nair et al. (2006). However, our results tentatively show a higher reliance on standardized tools such as NIHSS, line bisection, and clock drawing. Compared to Menon-Nair et al. (2006), the present study demonstrates an increased tendency to assess for neglect within 48 hours of hospital admission, as recommended by the Canadian Best Practice Guidelines (2015).

Future Directions

- Clinicians should perhaps consider the use of virtual reality as a possible assessment and treatment option.
- VR is a technology based on computerized simulation and real-time visual, auditory, and, in some cases, haptic feedback

Benefits of Virtual Reality

- More interesting for patients
- Able to detect subtle deficits that other tests may miss
- Allows for customizable settings that cater to the patient's individual needs
- Simulates a real environment which may be beneficial for improving daily functioning
- Known to improve neglect recovery outcomes

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