Computerised speech and language therapy or attention control added to usual care for people with long-term post-stroke aphasia: the Big CACTUS three-arm RCT

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Declared competing interests of authors: All authors declare financial support from The Tavistock Trust for Aphasia. Rebecca Palmer was a National Institute for Health Research (NIHR)/Higher Education Funding Council for England-funded senior clinical academic lecturer until June 2017. She has current funding from the Stroke Association for a Doctor of Philosophy (PhD) student conducting work on fidelity to the intervention. The Stroke Association had previously funded early development work on the software used in the intervention but she was not involved in that. She was author of the intervention manual. Nicholas Latimer is supported by the NIHR (Post-doctoral Fellowship, reference PDF-2015-08-022) and is currently supported by Yorkshire Cancer Research (award S406NL). Pam Enderby has a patent on the Therapy Outcome Measures (2015) used in this trial from which she receives royalties. Audrey Bowen is funded by the Stroke Association and the NIHR Collaborations for Leadership in Applied Health Research and Care Greater Manchester. She co-authored the Communication Outcome after Stroke (COAST) and Carer COAST tools, which are patented. Madeleine Harrison receives PhD fellowship funding from the Stroke Association. Esther Herbert received a NIHR Research Methods Fellowship, outside the submitted work. Cindy Cooper sits on the NIHR Clinical Trials Unit (CTU) Standing Advisory Committee (2016 to present) and the UK Clinical Research Collaboration Registered CTU Network Executive Group (2015 to present).

Published April 2020
DOI: 10.3310/hta24190

Plain English summary

The Big CACTUS three-arm RCT

Health Technology Assessment 2020; Vol. 24: No. 19
DOI: 10.3310/hta24190

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Plain English summary

Aphasia is a communication disorder that can be caused by a stroke. It affects a person's understanding of spoken words and their talking, reading and writing abilities. Communication may improve months, or years, after a stroke with speech and language therapy. Many patients want more speech and language therapy than the NHS can provide.

The Big CACTUS (clinical and cost-effectiveness of aphasia computer treatment versus usual stimulation or attention control long term post-stroke) trial evaluated the use of speech and language therapy software for people with aphasia to practise finding words independently at home on their own computer or one loaned by the NHS.

People with aphasia who had had a stroke at least 4 months previously were randomly allocated to one of three groups:

1. usual speech and language therapy care
2. daily use of computerised speech and language therapy for 6 months, tailored by a speech and language therapist and supported by a volunteer or speech and language therapy assistant
3. daily completion of puzzles and supportive telephone calls from a researcher to mimic the activity/attention the computerised speech and language therapy group received.

All groups received usual speech and language therapy.

A total of 278 people with aphasia took part in this trial, from 21 UK NHS speech and language therapy departments. They had their strokes between 4 months and 36 years previously. Computerised speech and language therapy enabled more practice (28 hours on average) than usual speech and language therapy (3.8 hours). The computerised speech and language therapy group significantly improved their ability to say words they chose to practise compared with those in the usual speech and language therapy or puzzle book groups.

Although computerised speech and language therapy can help people with aphasia to learn new words for years after stroke, no improvements in conversation or quality of life were seen. The cost-effectiveness for the NHS is still uncertain. However, our best estimate is that it is unlikely to be cost-effective for everyone with aphasia, but it may be cost-effective for people with mild and moderate word-finding difficulties. Next steps will focus on how to encourage use of new words in conversation to have an impact on quality of life.

Health Technology Assessment

HTA/HTA TAR

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 3.819

Health Technology Assessment is indexed in MEDLINE, CINAHL, EMBASE, The Cochrane Library and the Clarivate Analytics Science Citation Index.

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This report

The research reported in this issue of the journal was funded by the HTA programme as project number 12/21/01. The contractual start date was in January 2014. The draft report began editorial review in July 2018 and was accepted for publication in October 2019. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the HTA programme or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the HTA programme or the Department of Health and Social Care.

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