

Impact case study (REF3b)

Institution: The University of Nottingham
Unit of Assessment: 3 Nursing
Title of case study: Implementing evidence-based community stroke services
1. Summary of the impact <p>Research by the University of Nottingham's Division of Rehabilitation and Ageing has informed the effective implementation of evidence-based Early Supported Discharge (ESD) and community services for stroke survivors. The findings of an international consensus on the implementation of ESD have played a significant role in shaping local, regional, national and international service specifications. Qualitative and implementation studies have helped to shape better working practices between acute and community stroke services, including joint decision-making on who should be eligible for ESD and ensuring that services derive the full benefits of robust and relevant data capture.</p>
2. Underpinning research <p>Translating research findings into clinical practice is rarely straightforward and has been highlighted by the UK government and others worldwide as a key area for further investment. In 2009 the University of Nottingham's Division of Rehabilitation and Ageing embarked on a research programme to address this issue in relation to stroke rehabilitation.</p> <p>Strokes are the third-largest cause of death in the UK. The recovery process for survivors can take years, with the transfer from hospital back to home particularly stressful. Led by Professor Marion Walker MBE (Professor of Stroke Rehabilitation) and Dr Rebecca Fisher (Senior Research Fellow and Stroke Rehabilitation Portfolio Manager), the research aimed to facilitate evidence-based implementation of Early Supported Discharge (ESD) and community stroke services.</p> <p>The first phase of the programme, funded by the National Institute for Health Research, used a modified Delphi approach to create consensus statements about core elements of ESD services [1]. The objective was to clarify key messages from clinical trial data and make research evidence about ESD more accessible to commissioners and service providers. Consensus was agreed among an international group of 10 trialists from five countries who contributed to the 2005 Cochrane systematic review on ESD.</p> <p>A second phase involved the use of qualitative methods to explore the context within which ESD services were being set up locally [2]. More than 60 semi-structured interviews were conducted with providers, commissioners and users involved in the evaluation of ESD services research. The challenges and successes experienced by local ESD services were explored to increase understanding of the issues faced by providers and purchasers "on the ground". The main findings from this work were that patients were accessing ESD services at varying times post-stroke, that patient selection for ESD referral did not reflect the recommendations described in the evidence base and that the quality and sharing of data were problematic.</p> <p>The team went on to carry out qualitative research to explore the impact of ESD on stroke patients and their carers [3]. Positive experiences reported by the 27 stroke survivors and carers who took part in this study included that rehabilitation was received in the home environment and in a timely fashion after discharge from hospital. Limited support for carers, the need to improve provision of information and the disjointed transition between ESD and ongoing rehabilitation services were among the reported difficulties.</p> <p>Most recently, in early 2012, the team conducted further consensus activity in collaboration with the national NHS Stroke Improvement Programme (SIP) [4]. Focusing on the wider implementation of evidence-based community stroke services, this work identified the core elements of stroke services for patients unable to access ESD services and for patients whose ESD rehabilitation goals have been met. It provided an accessible document, to be used in conjunction with the ESD consensus, for commissioners to use in developing community stroke services [5, 6].</p>

3. References to the research

Publications:

1. **Fisher, RJ**, Gaynor, C, Kerr, M, Langhorne, P, Anderson, C, Bautz-Holter, E, Indredavik, B, Mayo, N, Power, M, Rodgers, H, Morten Rønning, O, Widén Holmqvist, L, Wolfe, C, and **Walker, M** (2011) A Consensus on Stroke Early Supported Discharge, *Stroke*, 42, 1392-1397. doi: 10.1161/STROKEAHA.110.606285 [IF 6.158]
2. Chouliara, N, **Fisher RJ**, Kerr, M, and **Walker MF** (2013) Implementing evidence-based stroke Early Supported Discharge services: a qualitative study of challenges, facilitators and impact. *Clinical Rehabilitation*, published online before print Sept 4 2013 doi: 10.1177/0269215513502212 [IF 2.191]
3. Copley, CS, **Fisher, RJ**, Chouliara, N, Kerr, M, and **Walker, MF** (2013) A qualitative study exploring patients' and carers' experiences of Early Supported Discharge services after stroke, *Clinical Rehabilitation*, 27(8), 750-757. doi: 10.1177/0269215512474030 [IF 2.191]
4. **Fisher, RJ**, **Walker, MF**, Golton, I, and Jenkinson, D (2013) The implementation of evidence-based rehabilitation services in the community, *Clinical Rehabilitation*, 27(8), 741-749. doi: 10.1177/0269215512473312 [IF 2.191]
5. **Walker, MF**, Sunnerhagen, KS, and **Fisher, RJ** (2013) Evidence-Based Community Stroke Rehabilitation, *Stroke*, 44, 293-297. doi: 10.1161/STROKEAHA.111.639914 [IF 6.158]
6. **Walker, MF**, **Fisher, RJ**, Korner-Bitensky, N, McCluskey, A, and Carey, L (2013) From what we know to what we do: translating stroke rehabilitation research into practice, *International Journal of Stroke*, 8(1), 11-17. doi: 10.1111/j.1747-4949.2012.00974.x [IF 2.748]

Grants:

Walker, MF, and **Fisher, RJ**: Successful Implementation of Stroke Early Supported Discharge Services, NIHR CLAHRC (Collaboration for Leadership in Applied Health Research and Care), Nottinghamshire, Derbyshire and Lincolnshire, 2008-2013 – £1,744,030

Waring, J, Currie, G, Avery, T, **Walker, MF**, Sahota, O, Bishop, S, and **Fisher, RJ**: Knowledge sharing across the boundaries between care processes, services and organisations: the contributions to 'safe' hospital discharge and reduced emergency readmission, NIHR SDO, 2011-2013 – £190,000

Fisher, RJ, **Walker, MF**, James, J, and Larder, R: Implementation of an educational programme to facilitate evidence-based community stroke care across the East Midlands, East Midlands Health Innovation Education Cluster (HIEC), 2012-2013 – £41,420

4. Details of the impact

Research by the Division of Rehabilitation and Ageing has informed the effective implementation of evidence-based ESD and community services for stroke survivors at local, regional, national and international levels.

The team's strong collaborative partnership with the East Midlands Cardiovascular Network (EMCVN) has been crucial to facilitating evidence-based improvements in community stroke care locally. The 2011 ESD consensus informed a service specification for providers and commissioners across the East Midlands. In 2012 a review of ESD services led by EMCVN reported that local ESD teams were actively using both the consensus and service specification [a, b].

The national consensus on the implementation of community stroke services has also informed the Midlands and East Strategic Health Authority's stroke service specification. The launch of these regional guidelines in June 2012 led to community stroke services throughout the authority's area returning data based on the specification and being mandated to agree evidence-based plans for service improvements by the end of 2013 [c].

The research team has conducted several implementation activities to address the findings of the ESD consensus and qualitative mapping. These local and regional events, which have targeted the barriers to providing evidence-based services, have generated extensive positive feedback. An ESD Knowledge Sharing Event in October 2010 was rated "excellent" or "good" by all evaluation respondents [d] and resulted in greater collaboration and joint decision-making between acute and community stroke services. A May 2013 evaluation of a series of eligibility workshops addressing difficulties in deciding who should be referred to ESD services showed attendees felt the events had facilitated communication across teams and organisations and increased knowledge of the evidence base, with all respondents confirming they would apply what they had learnt to their work [e]. Eight data-handling "task and finish group" meetings with ESD and hospital staff have also been held, as a result of which hospital teams now routinely record patient destinations on discharge, have improved their ability to analyse patient flow to community stroke services and have enhanced the quality and sharing of data.

Funding from the East Midlands Health Innovation Education Cluster has enabled the research team to build on its implementation activity through an East Midlands-wide educational programme, which ran until the end of July 2013. Piloted in Nottinghamshire in April 2013, this specifically addressed how teams within the stroke care pathway (e.g. ESD, longer-term community stroke teams, outpatient services, voluntary organisations, social care) could work together to ensure seamless transition between services for stroke survivors. Feedback from attendees at a February 2013 event to support this initiative included "[it] will help me look at implementing some changes to further improve service quality" and "[it will] guide us on next steps for service improving" [f]. The intention is that this programme, which was developed in response to issues raised by patient and carers as part of the team's earlier qualitative research, will eventually be rolled out nationally.

Collaboration with the national NHS SIP, which was tasked with the implementation of the National Stroke Strategy 2007, has ensured the team's research has informed service provision across the country. Details of the ESD consensus and programme of research are featured on the NHS SIP website [g], which is a major source of information for providers and commissioners setting up community stroke services. The team's research has also informed guidance for a national audit of ESD services conducted by the NHS SIP and regional Cardiovascular Networks since 2011 [b, h].

The research has attracted growing national and international interest. The team has provided more than 30 detailed responses to stakeholders around the UK and in other countries following e-mail requests for guidance on the implementation of ESD and community stroke services (available on request).

In Cheshire and Merseyside, for example, the St Helen's Clinical Commissioning Group requested advice on revising its existing ESD specification. The information it received was used to improve eligibility criteria, staff numbers and skill mix, length of ESD input and Key Performance Indicators. The research team's findings are now being used to redesign the entire stroke pathway. The North West Assisted Discharge stroke service in Lincolnshire has used the community stroke consensus to present to commissioners to make a case for a stroke community rehabilitation team. In 2011 the manager of the North Nottinghamshire ESD team, which was nominated for the Stroke Association's annual Most Improved Stroke Service Award, cited collaborative links with the Division of Rehabilitation and Ageing as key to the service's development.

Internationally, the research team's ESD consensus has been used by the 'Rehabilitation in the Home' team in Perth, Australia, to inform its service by implementing the recommended team

composition and stroke service model [i]. It was also referred to in the Model of Stroke Care for the State of Western Australia [j].

5. Sources to corroborate the impact

- a. East Midlands Cardiovascular Network 2011/2012 Annual Report – review of ESD services (see page 15)
- b. East Midlands Cardiovascular Network – Our Ambitions for Stroke Care, 2012 (see page 8)
http://www.emcvn.nhs.uk/images/documents/stroke/4191%20EMCVN%20stroke%20strategy_Lay_out%201.pdf
- c. NHS Midlands and East – 2012 Stroke Service Specification and plans for improvement
[http://www.bhhsnetwork.nhs.uk/userfiles/file/Stroke/120629%20NHS%20Midlands%20East%20Stroke%20Service%20Specification%20v3%200%20\(3\).pdf](http://www.bhhsnetwork.nhs.uk/userfiles/file/Stroke/120629%20NHS%20Midlands%20East%20Stroke%20Service%20Specification%20v3%200%20(3).pdf)
- d. Stroke Services – Early Supported Discharge: a case study in partnership working – evaluation report, January 2011
<http://www.clahrc-ndl.nihr.ac.uk/clahrc-ndl-nihr/documents/stroke-rehabilitation/esdeventclahrc-ndl141010report.pdf>
- e. Eligibility for ESD: an implementation workshop report – evaluation report, May 2013
<http://www.clahrc-ndl.nihr.ac.uk/clahrc-ndl-nihr/documents/stroke-rehabilitation/clahrc-ndl-esd-eligibility-report-2013.pdf>
- f. HIEC educational programme using CLAHRC findings [Accessed 14 October 2013]
<http://emhiec.co.uk/projects-2012-2013/em23-community-stroke-care>;
<http://emhiec.co.uk/docs/esd-cst-away-day.docx>
- g. NHS Stroke Improvement Programme – provides guidance to service providers and commissioners and features CLAHRC-NDL research findings [Accessed 14 October 2013]
<http://www.improvement.nhs.uk/stroke/ESD/ESDresearchandliterature/tabid/163/Default.aspx>;
<http://www.improvement.nhs.uk/stroke/ESD/ESDsupportingcommissioning/tabid/168/Default.aspx>
- h. NHS Stroke Improvement – Stroke ASI 9: access to and availability of ESD services [Accessed 14 October 2013]
<http://www.improvement.nhs.uk/stroke/AcceleratingStrokeImprovement/ASIESD/tabid/284/Default.aspx>
- i. Components of an Effective Early Supported Discharge Team for Stroke: A West Australian Perspective – model of ‘Rehabilitation in the Home’ (RITH), Perth, Australia, informed by ESD consensus [Accessed 14 October 2013]
http://www.anzctr.org.au/trial_view.aspx?id=336479
- j. Model of Stroke Care, Department of Health, State of Western Australia, 2012 (see ref 112 for reference to ESD consensus)
http://www.healthnetworks.health.wa.gov.au/modelsofcare/docs/Stroke_Model_of_Care.pdf