

East Midlands Integrated Stroke Delivery Network Telerehabilitation Report

1. Introduction

The East Midlands ISDN undertook a regional project to explore the current provision of telerehabilitation across community stroke services, aligning with updated guidance from the **2023 National Clinical Guideline for Stroke** and **2023 NICE Guidelines for Stroke Rehabilitation in Adults**. This report summarises the key findings from the survey conducted across the region and evaluates these against the project's stated objectives.

2. Project Aims & Objectives

The primary objectives were to:

1. **Map current telerehabilitation delivery**, including delivery models and platforms in use.
2. **Identify uptake across the region and barriers** to adoption.
3. **Evaluate perceived benefits and drawbacks** from clinical perspectives.
4. **Highlight areas for development**, including training and infrastructure

3. Survey Summary

The survey was distributed to community-based stroke rehabilitation teams across the East Midlands. All 11 teams in the region responded. The findings represent a cross-section of services, including Early Supported Discharge Teams and Community Stroke Teams and reflect varying stages of telerehabilitation adoption and integration into stroke pathways.

4. Key Findings

4.1 Current Delivery of Telerehabilitation

- **Delivery Models:**

- Telerehabilitation was mostly used **in a hybrid model**, supplementing in-person therapy rather than replacing it.
- Predominantly therapist-led, with some self-directed elements where digital confidence was higher.

- **Telerehabilitation Platforms Used:**

Virtual Groups	Online programs offering convenient and supportive ways for stroke survivors to engage in group-based rehabilitation from their homes using Microsoft Teams
Telephone Reviews	A method to assess recovery and needs after a stroke, typically around 6 month post-stroke using Microsoft Teams
Isla Health	A digital platform for remote patient monitoring and care using videos and patient-reported outcome measures
GripAble	A smart, gamified device for hand and arm rehabilitation
Physiotools	Software used for creating and sharing personalised exercise programmes
React2	Software offering speech and language therapy exercises
Giraffe	Platform providing remote and interactive delivery and monitoring of personalised physiotherapy and podiatry services
Georges Place	A bespoke online community for stroke survivors
Apps	Apps which enable patients to practice various aspects of their rehabilitation from home.

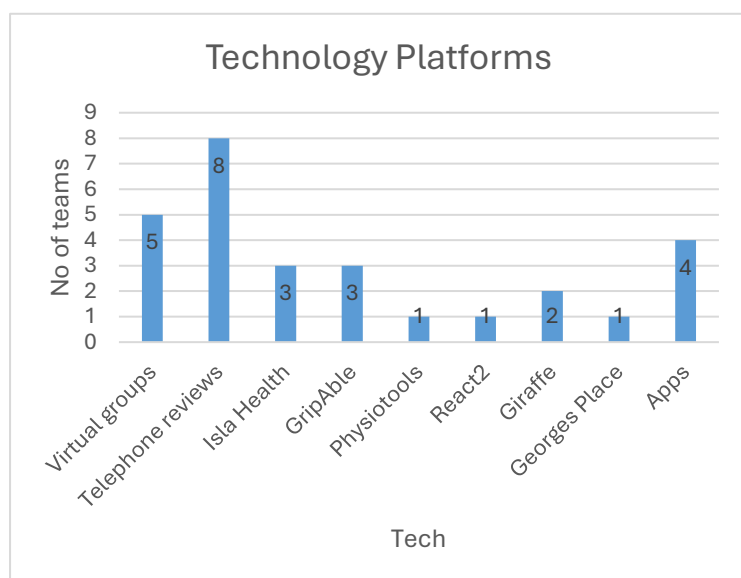
4 out of the 11 teams reported the use of **apps** these included:

Apps	Description	No of teams
Tactus	Helps people improve speech and thinking skills through image-based, customisable conversation prompts.	4
OCS Plus	A tablet-based tool that quickly screens for subtle memory and thinking problems in adults.	2
iRead More	A therapy app that helps people with reading difficulties improve word recognition through evidence-based matching and repetition exercises.	1
Lumosity	A brain training app offering games and exercises designed to improve memory, attention, problem-solving, and other cognitive skills.	1
Headspace	A mindfulness app offering guided meditations, sleep aids, and breathing exercises to support mental well-being	1
Visonsim	An app that simulates vision loss	1
Gridplayer	A communication app that lets people use pre-made symbol and text grids to speak through touch or eye gaze.	1
Predictable	A text-to-speech app that lets people with speech difficulties communicate using predictive typing and customisable phrases	1
Swallow ID	Teaches normal swallowing anatomy with interactive animations and videos.	1
Aspiration Disorder	Explains and shows swallowing problems through animations and videos.	1
Speech Sounds on cue	A speech therapy app that helps people with apraxia practice producing sounds using visual and audio cues	1
Flow Free	A puzzle game where players connect matching coloured dots without crossing paths to fill the grid.	1
Sudoku	A number puzzle game where players fill a 9×9 grid so each row, column, and 3×3 box contains the digits 1 to 9 without repetition	1
Conversation solitaire	Helps users practice and build conversation skills through self-guided prompts and activities	1
Cognition app	Brain training app with games and exercises designed to improve memory, attention, and problem-solving skills.	1
Lingraphica	Variety of free speech therapy apps for practicing communication exercises and helping to improve communication	1
Oral disorders apps	An educational app that explains and illustrates conditions affecting the mouth using images, videos, and animations	1
Apraxia apps	Provide interactive exercises and cues to help people with speech apraxia improve their speech production and communication skills	1
Let me Talk	Supports communication using augmentative and alternative communication (AAC)	1
Speech Assistant	AAC text-to-speech app. Create categories and save phrases for quick access and easy communication	1

Train your brain	Fun brain stimulation games, stimulating cognitive ability	1
Brain Gymmer	Game that enhances calculation skills, concentration level and memory power	1
Hazard Perception	Driving hazard perception videos and tests	1
Visual Attention therapy	Retrains the brain to move the eyes scanning left to right across the screen	1
Clock Yourself	Timed challenges to think on your feet	1
Metronome	Customisable metronome sounds/beats	1
Insight Timer	Meditation app	1
Map my walk	Walking tracker to build healthy habits and stay motivated	1
Nothing much happens	Stories to help focus, relaxation and sleep	1
Yuka	Scans barcodes of food and personal care products to see impact on health	1

4.2. Uptake of Telerehabilitation

Adoption of the different telerehab platforms is illustrated below:

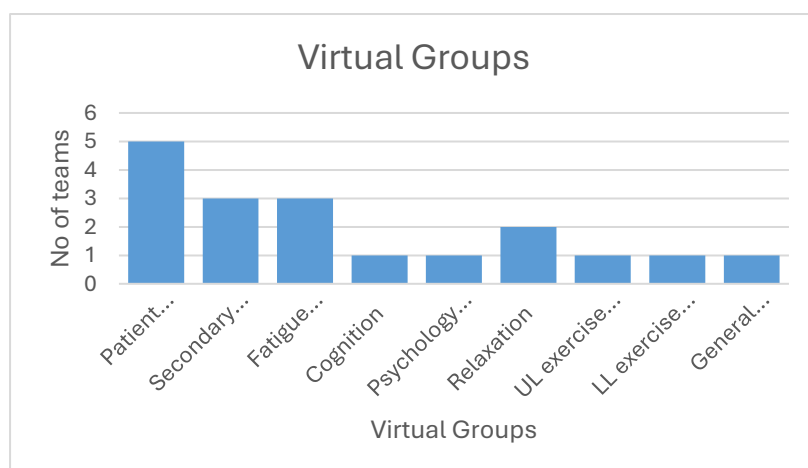


Telephone reviews are the most widely used form of Telerehab (73%), with 45% of teams delivering virtual groups and 36% utilising apps

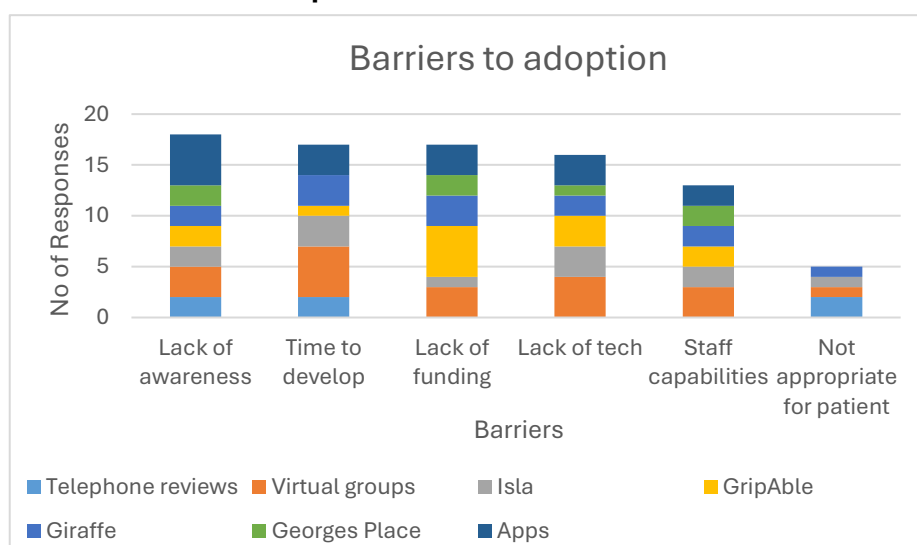
There was a consensus that telerehab is not maximised in the community stroke teams with the exception of:

- 1 team believed telephone reviews were being maximised in their service
- A different team believed virtual groups were being maximised.

A variety of virtual groups were reported, as detailed below :



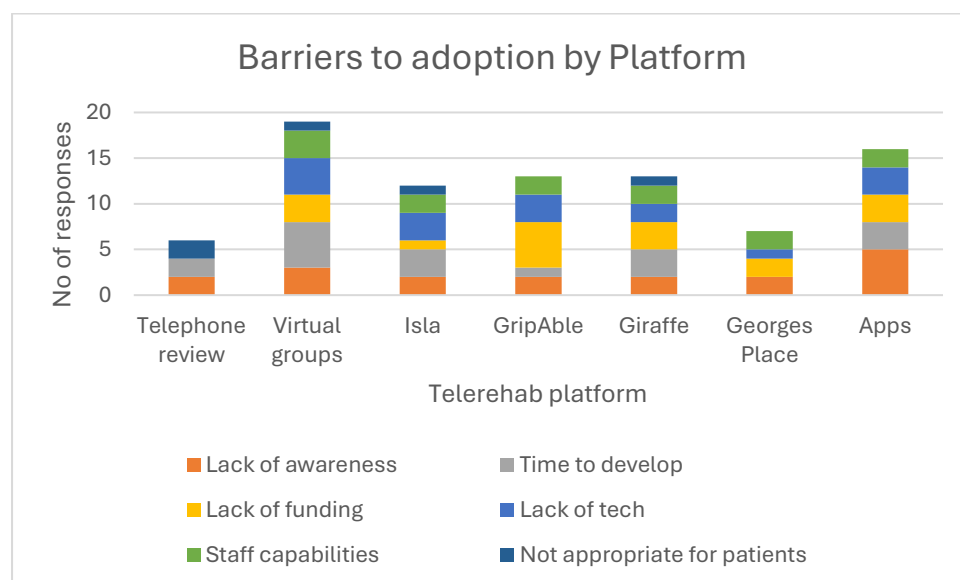
4.3 Barriers to Adoption



The greatest barriers in the implementation of telerehabilitation was reported to be lack of staff awareness, particularly in relation to Apps.

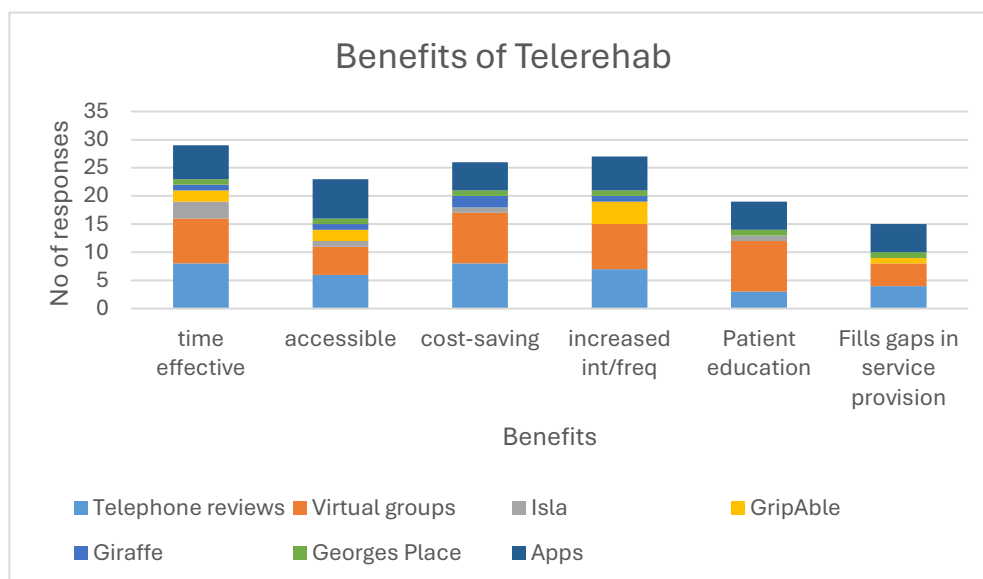
Time to develop is reported as particularly challenging in setting up virtual groups

Lack of funding is a major issue in the introduction of GripAble

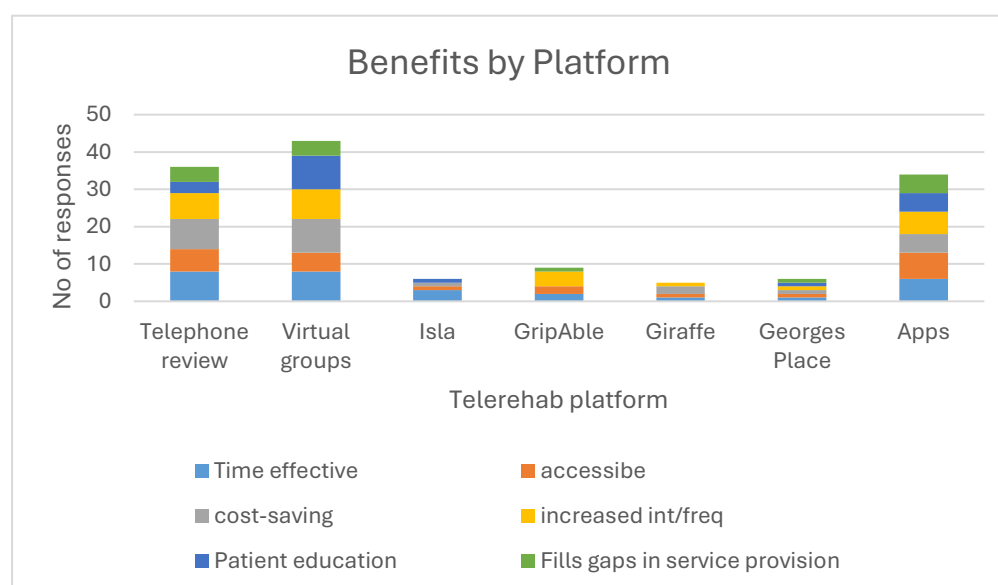


Setting up virtual groups appeared to be the most challenging telerehab to implement, a significant part of which was the time needed to set them up. This was followed by the use of Apps which is largely limited by lack of awareness.

4.4 Perceived Benefits



The greatest overall benefits of Telerehab were reported to be improving time effectiveness, increasing the frequency and intensity of rehabilitation, greater accessibility and cost effectiveness.

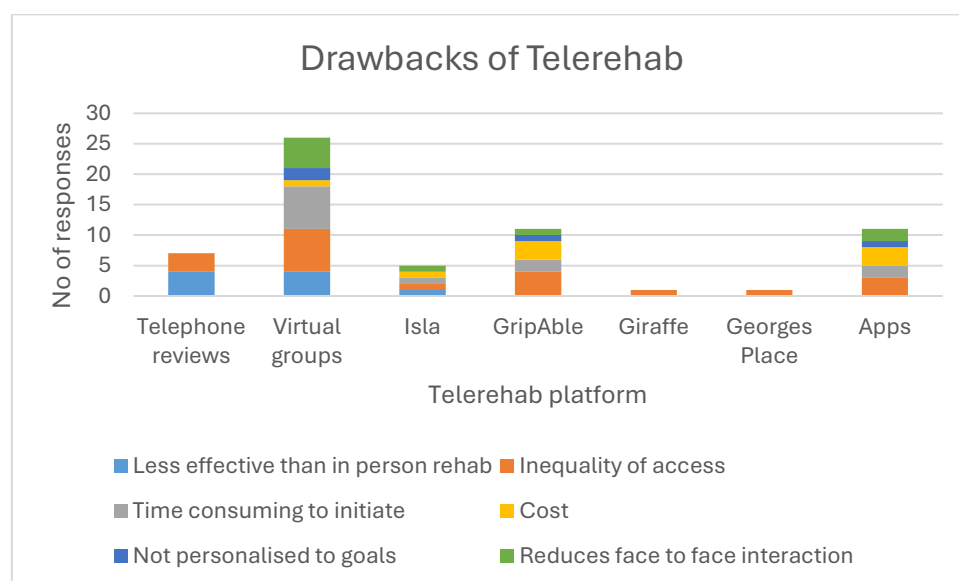


The teams reported the greatest benefits to be found through virtual groups, telephone reviews and Apps. However, this may be due to lack of uptake and experience with the other platforms some of which are only used by single teams ie Georges Place, Giraffe.

Other benefits were reported to include:

- Peer support for patients from group work
- Patient preference
- Patient ownership of rehab

4.5 Perceived Drawbacks



The number of reported drawbacks to Telerehab was much lower than the reported benefits.

The platform with the greatest drawbacks were virtual groups, with inequality of access and time being the largest drawbacks.

Other drawbacks reported included:

- Risk of patient disengagement without in-person support, not perceived as an intervention
- Equity concerns, due to access to technology, literacy and patients with communication/cognitive issues
- Time consuming to follow-up patients who drop out of groups

5. Summary of Findings

- Excellent level of engagement from CST on the topic of Telerehab with 100% response rate
- Reported benefits of Telerehab far outweigh its drawbacks
- Varied uptake of Telerehab across the region, with huge potential to increase its usage
- Wide variety of platforms and Apps are utilised across the teams
- Most utilised and beneficial platforms include telephone reviews, virtual groups and Apps although results for other platforms will be limited by their lack of use/awareness
- Barriers to introduction of telerehab include lack of awareness; time taken to develop; Funding and availability of technology and staff capabilities
- Telephone Reviews are the most utilised platform, being utilised in 73% of teams. They are reported to be easy to implement, with the challenges being around lack of awareness and time.
- Virtual Groups are used in 45% of teams. However, within that there is a wide variety in the types of groups delivered. It is identified as the most challenging platform to implement with the biggest barrier being time to develop, however it is also perceived to result in the greatest benefits.
- Apps are used in 35% of teams, however there is a wide variety in those used spanning different aspects of rehabilitation. Lack of awareness and time is again identified as being a barrier to use.
- There is limited data available for Giraffe, Georges Place, GripAble and Isla due to the small number of teams utilising these platforms.

6 Areas for Development

- Clear need for:
 - Greater awareness of telerehab platforms already used within the region
 - Greater awareness of new and effective telerehab platforms
 - Regional virtual group discussion
 - Review groups being offered
 - Consider the potential for sharing access to virtual groups across teams
 - Share information to reduce the time taken to develop
 - Identify funding opportunities for Telerehab
 - Gather data regarding patient perspective/feedback
 - Identify clinicians training needs within the regions CSTs. Identify and share training opportunities

7. Conclusion

The findings from this regional survey demonstrate a strong foundation for telerehabilitation within East Midlands community stroke services, with clear enthusiasm and engagement across all teams. The 100% response rate highlights the commitment of CSTs to advancing digital rehabilitation and ensuring equitable, high-quality care for stroke survivors.

While the benefits of telerehabilitation are widely recognised - particularly in terms of accessibility, efficiency, and patient empowerment - its adoption remains variable across the region. The most commonly implemented platforms, including telephone reviews, virtual groups, and rehabilitation apps, have proven both practical and effective. However, there remains untapped potential to expand usage and standardise practice, particularly through enhanced awareness, training, and shared learning.

Key challenges such as limited time for development, insufficient awareness of available platforms, and funding constraints continue to limit progress. Addressing these barriers through targeted investment, knowledge sharing, and regional collaboration will be critical to embedding telerehabilitation as a sustainable and integral part of stroke rehabilitation pathways.

Looking forward, increasing clinician capability, strengthening digital infrastructure, and incorporating patient feedback will be essential to realising the full benefits of telerehabilitation. With coordinated regional support and a shared vision for innovation, there is a strong opportunity to develop a more connected, efficient, and patient-centred model of stroke rehabilitation across the East Midlands.