# The digital solution: environmental assessment for acute hospital discharge

Digital pioneer and occupational therapist **Angela Alty** reflects on establishing the use of video consultations to facilitate a home environment assessment for discharge planning

With the continual development of technology, an opportunity to find alternative solutions to historic practice has become increasingly enticing.

As an occupational therapist with over 20 years of practice within acute hospital care, more recently specialising in stroke rehabilitation for Lancashire Teaching Hospital NHS Foundation Trust, I had been increasingly frustrated by the challenges practitioners have faced in successfully utilising technological digital solutions for practice.

I am also mindful that a technological solution should only be sought where there is a true need and not purely for the sake of 'using tech' (Greenhalgh 2017).

Commencing in October 2019, I successfully gained an opportunity to work in a seconded role as a digital pioneer, one day a week for a year, for Healthier Lancashire and South Cumbria (HLSC). The aim of the scheme is to provide an opportunity for staff at all levels to develop their ideas about using digital technologies.

Within Lancashire and South Cumbria, statistics show that 86 per cent of households have internet access, 82 per cent go online every day, and 72 per cent of adults use a smartphone (HLSC 2019).

In recognition of this, my project has involved establishing the use of video consultations for patients or their next of kin, to facilitate an assessment of the home environment for discharge planning.

### Reshaping environmental assessments

The main clinical reasoning for conducting environmental assessments is to reduce risk within the home environment for hospital discharge, and to maximise safety and functional independence.

The aim of the project was to introduce the use of digital technology, in the form of using video calling to next of kin, for the therapist to then issue equipment or provide advice without needing to leave the hospital.

The Topol Review, published by Health Education England in February 2019, reinforces the use of digital technologies in health and social care, stating: 'Digital healthcare technologies offer the potential to reshape the patient NHS relationship, empowering both staff and patients who are willing and able to become more actively engaged.'

### Evidence and existing technology

Initially, I conducted a literature review regarding the research and evidence relating to both environmental assessments and the successful implementation of technology within healthcare settings.

Mazumda and Ciravegna (2017) noted that 'the potential for remote access visits is significant', but also recognised limitations in relation to governance, training, technical issues with connectivity, openness to the use of technology from staff and clients, and the use of a common language between the therapist and service user.

I used the non-adoption or abandonment of technology by individuals and difficulties achieving scale-up, spread and sustainability framework (NASSS –CAT) (Greenhalgh 2017) to identify the potential challenges to my concept, which highlighted

issues with access to the appropriate technology, connectivity and questions regarding the value proposition to both the therapists and the end users.

It also became clear that there were challenges around driving forward the IT elements within my workplace, due to competing priorities. There were also practical issues relating to the digital readiness of therapists, hardware issues and the ability to adapt and embed the concept over time.

However, the potential benefits of the project were numerous, including:

- increased efficiency for hospital discharge;
- financial efficiency savings through therapist time and travel costs, without detrimental impact on thoroughness of assessment;
- reduction in stress impact on staff when trained and empowered to have tech confidence;
- reduced intrusion into the property from the patient's perspective;
- an ability to review the home environment for patients who do not reside within the immediate locality as a regional specialist centre;
- a reduction in delays to the discharge planning procedures; and
- an increase in the therapists' digital maturity.

### Changing priorities and technology due to COVID-19

It took a number of months of networking to form links with the IT staff within the trust and access the use of an appropriate video consultation platform. I then needed to work through the relevant data protection impact assessment form with the information governance team.

While the chosen platform was the optimum system I was able to access at the time, it presented with some technological limitations in relation to the purpose for which I wanted to use it.

My original plan was to use a phased approach, by rolling out the trial with the elective orthopaedic team first.

I had already worked with the team to trial the system and ensure that all the hardware requirements were in place, and we were planning to trial the system using a 'plan, do, study, act' methodology (Taylor et al 2013).

The therapist would access the assessment via video connection and a second therapist would support from the service user's end, problem solving any issues as they arose.

It was at this point that the COVID-19 pandemic severely impacted on healthcare services. Suddenly the key to video consultations had unlocked a door to numerous possibilities, while the priorities of all NHS acute hospital and social care systems changed immediately.

In reviewing guidance from NHSX, whose aim is to 'create the most advanced health and care service in the world to diagnose diseases earlier, free up staff time and empower patients to take greater control of their own healthcare' (NHSX 2020), it became clear that various video platforms, including commercial ones, were deemed acceptable for use.

Being mindful that the solution would be optimised if there could be longevity beyond the current COVID-19 crisis, and the roll out of

Microsoft Teams throughout the trust, we used Microsoft Teams as the video platform.

### Successful video visits

The therapist would first send a meeting invite by email to the service user/next of kin. During the video-based visit, relevant identification clarification would take place first, followed by the service user then guiding the therapist through the property using the back camera on their smartphone or tablet.

If able to, and if necessary, the client could then be asked to measure furniture heights as required and be risk assessed.

Governance and IT approval was gained immediately. I produced guidance documents for the therapists to utilise this option and the system was rolled out to all of the acute inpatient therapy teams over two weeks, rather than the phased approach originally planned.

The therapists practised using the system, with myself as a therapist now self isolating in my own home.

The positive engagement of the therapists has been palpable and nine teams out of a potential 11 within the trust engaged with the training.

Over the two-week period immediately following the training, two of the teams successfully undertook video based visits. The feedback from service users has been positive, but there are continued challenges to overcome.

Using the test bed calculator developed by the HLSC, it is anticipated that a financial efficiency saving of £1,846.10 a month could be made; based on one band six therapist, previously going out on five visits a month, instead using video consultation.

Ultimately, telehealth continues to offer us opportunities to develop our approach to healthcare as clinicians, however I am clear that this is still the start of a journey. Continuing to find the most accessible platform, therapist confidence in using the systems and the embedding of new systems of work are still key priorities in the project.

Personally, I have learnt that while 'implementing new technologies as part of changes to health and social care services is inherently challenging' (Greenhalgh et al 2017), it has taught me a huge amount regarding

governance and technology, and ultimately has enabled me to build a network of contacts and trial a new way of working with the occupational therapy service at Lancashire Teaching Hospital.

We can successfully apply video consultations, and one of the few positive impacts of the global pandemic within healthcare, and in the personal lives of the general public, has been the huge increase in engagement with a variety of video call platforms.

Now is the time to develop and embed this technology, while analysing feedback from therapists and service users, alongside the financial efficiency savings data. This rollercoaster has not yet finished.

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### References

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