

SPEECH AND LANGUAGE THERAPY DEPARTMENT TELESWALLOWING EXTENSION PROJECT

AUGUST 2014-MARCH 2015
BLACKPOOL TEACHING HOSPITALS NHS FOUNDATION TRUST

Clinical Project Lead Report – Veronica Southern MA BSc Cert MRCSLT

“we have to not only imagine better, but do better...from the front line to the boardroom...if we are to deliver a comprehensive, high quality, cost effective NHS that is fit for the future.” Prof Tony Young, National Clinical Director for Innovation, NHS England.

Summary

The NHS is being driven by ever growing demand from an ageing population and increasingly sophisticated, complex and costly treatments. The NHS Five Year Forward View (5YFV) 2014 ⁽¹⁾, sets out a clear vision stating the contribution the NHS can make to the health of the nation and the changes (transformation) needed to meet the needs of current and future patients. This transformation requires a range of different care models, one being telesolutions ie the provision of remote access to patients. Telesolutions can mean a more efficient and effective use of scarce clinical resources.

The Speech and Language Therapy Team within Blackpool Teaching Hospitals NHS Foundation Trust had already shown they could deliver (within a pilot study working with three nursing homes - please read in tandem with this report) an improved response time to dysphagia referrals of 59 minutes per Teleswallow (remote access to patients via video) assessment, without incurring extra costs in staffing, with an improvement in the quality of healthcare service currently delivered that is acceptable to patients, nursing homes and therapy staff. This had been achieved despite the exponential increase in demand on the service. This reports documents the data and information collected by the Clinical Project Lead from the second Teleswallowing Project.

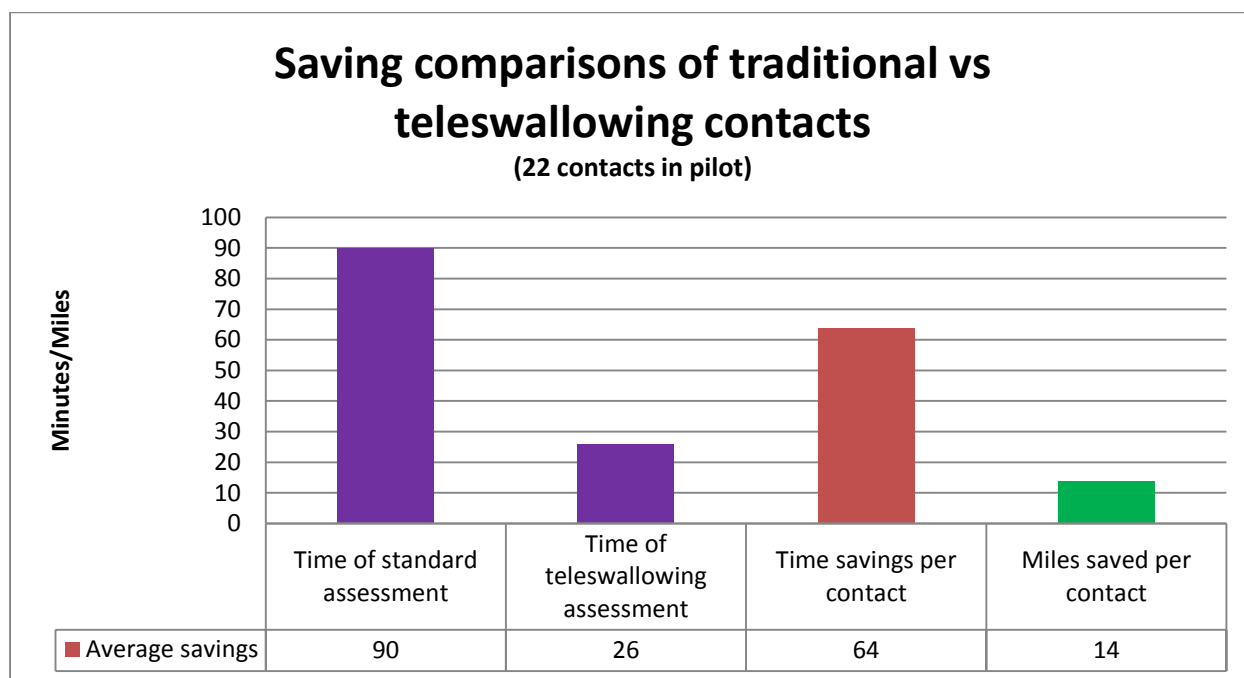
Teleswallowing Extension Project Aims Achieved

- to reach more patients in an increased number of nursing homes (five recruited) by delivering high quality, modern, efficient services using the Teleswallowing approach: 17 patients were assessed via Teleswallowing from 1 December 2014 to 10 March 2015. 22 actual Teleswallowing contacts were made, including reviews.

- to engage healthcare professionals by opening up the possibility of telehealth solutions for their services: all the nursing homes were involved in remote access but some engaged more often than others. More SLTs were trained to use the approach and this training and confidence building is still in progress. Researchers from the University of Cumbria measured the acceptability of the approach. During the project, the Trust's Podiatric Diabetes Foot Service made contact to develop telesolutions for training purposes.

Finance Facts and Figures summary

Blackpool Hospitals NHS Foundation Trust Speech and Language Therapy Department (SLT) won a Regional Innovation Fund (RIF) award of £44,327 in July 2014 to extend a previously run pilot (to remotely access patients with swallowing problems using the innovative Teleswallowing method. The information below shows that clinical time (and travel costs) is saved using Teleswallowing ie **three times as many patients (where appropriate) could be assessed using the approach.**



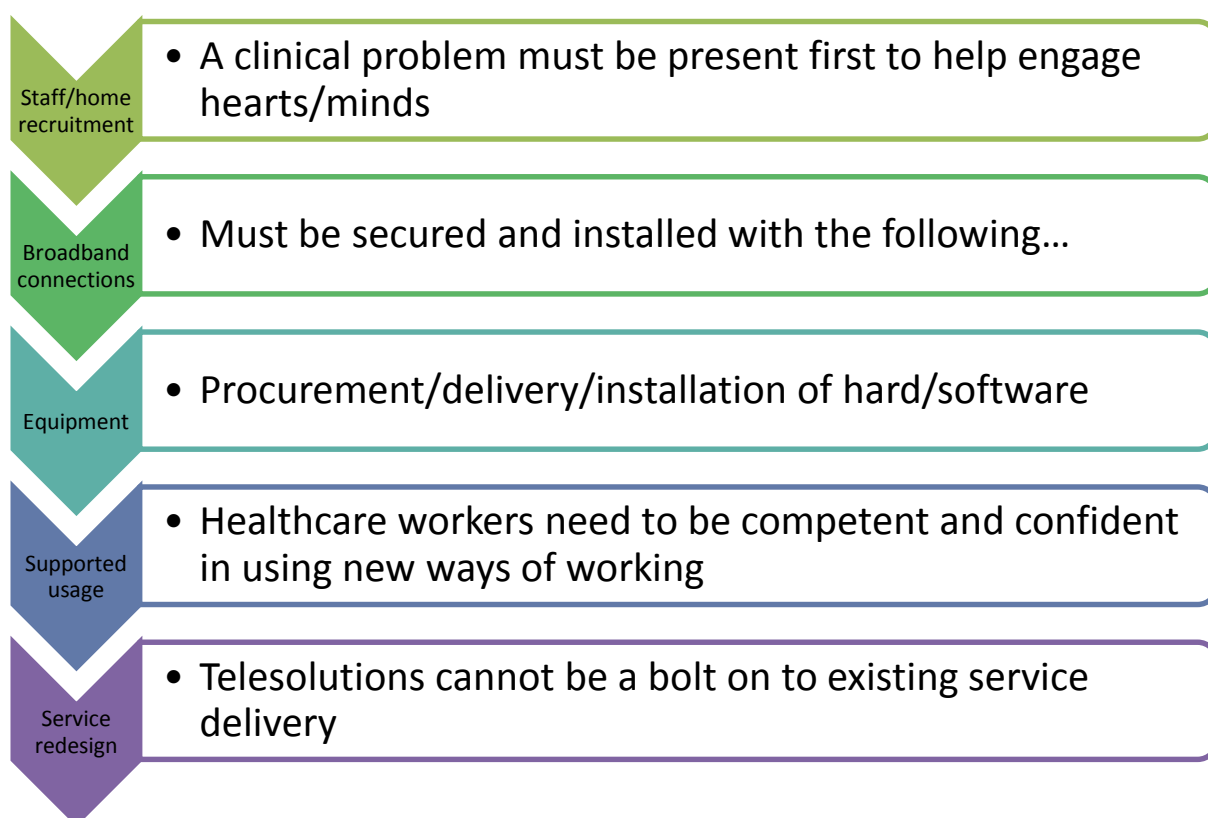
Additional benefits	
<div>Opportunity cost (Clinical time)</div>	£734.00
<div>Cashable savings (mileage costs)</div>	£178.00
Total	£912.00
<ul style="list-style-type: none"> • These savings do not include cost of equipment • The staff time saving is not 'cashable', however it does represent an opportunity cost • The opportunity cost is based on band 7 staff 	

Recommendations

-the Teleswallowing approach has already passed through the experimental stage and proved itself as an alternative service model which incorporates the management of patients and the training/up-skilling of staff. It should be used as a contribution to contemporary professional practice and to exploit an increase in quality productivity within other services: 22642 home visits were made by the local Community Health Services Division in 2014 (Trust data). It is anticipated that a proportion of these could be delivered via telesolutions. The Teleswallowing approach has shown that three times as many patients (where appropriate) may be assessed in the time it takes to deliver one assessment via a home visit.

-a scrutiny be made at a departmental and trust level, of current clinical practices to utilise and embed new service delivery options. Telesolutions cannot be a bolt-on to services.

-use of the flowchart below when designing, developing and delivering telesolutions within clinical services in future.



- the benefits derived from the Teleswallowing approach and telesolutions in general are definite. To prevent health services and the Allied Health Professions in particular, from being entrenched in the past, a new, vigorous vision for modern NHS service delivery (based on the work this Trust has already achieved) which is cost effective and responsive, needs to be embraced and within this vision, telesolutions certainly plays an important part.

For further information contact veronica.southern@bfwhospitals.nhs.uk, tel 01253 951976

Foreword by The Clinical Project Lead Veronica Southern – ‘The Why’

‘There are lots of good ideas, but execution is what matters. You can be most effective when you align your special talents to the task at hand.’ Mireille Guiliano (2)

During my Speech and Language Therapy career, I have perceived a need in service delivery in that there are people with speech and swallowing challenges waiting on lists to be assessed. I have done something about this challenge by developing the Teleswallowing approach. There are so many patients who need us and so few of us to help – something needs to change in the way that we reach these people. A different way of thinking about service is required to break with old ways and develop new, responsive systems. Decks need to be cleared, services analysed and redesigned, and a modern simplicity in service delivery developed. The proper use of technology is pivotal to this but it needs to be fuelled by clinical vision based on clinical need in combination with appropriate organisational changes (new ways of working cannot be bolted on to old ways). I have come to the conclusion that change can be managed well when it is driven by a passionate vision of innovation to achieve compassionate, responsive care combined with specialist knowledge. All clinicians are leaders within the NHS and it is our responsibility to move the NHS forward now. The energetic pioneering clinicians who envision change should be prized within any organisation, and management structures should be flexible enough to enable and encourage these entrepreneurs to flourish for the benefit of the nation.

1. The Project

‘Swallowing difficulties (dysphagia) are common following neurological insult or disease. Dysphagia is acknowledged to precipitate aspiration pneumonia, malnutrition, poor rehabilitation, an increased length of hospital stay, and a reduction in quality of life. It is an independent predictor of poor patient outcome and potentially death. Studies have demonstrated that patients who receive formal swallowing assessments and adequate fluid and nutrition have reduced risk of poor patient outcome. Prompt assessment can avoid deterioration in health and subsequent admission to hospital’ (3). Currently, with the best will in the world from committed, hardworking SLTs, the traditional approach (triage, home visit, assessment) may attract delays owing to staff capacity, work patterns and waiting lists which can lead, ultimately, to poor patient outcome. The Teleswallowing Pilot Project completed in April 2014, looked at whether Teleswallowing was an approach which could address the above needs.

Blackpool Hospitals NHS Foundation Trust won a Regional Innovation Fund (RIF) award (£44,327 for staffing and associated non-pay ie for dissemination) in July 2014 to extend the above study using

Teleswallowing to five further nursing homes to test the approach further. An additional £40,000.00 from unspent NHS IT Innovation Programme funding was utilised to provide the technology.

Blackpool Teaching Hospitals NHS Foundation Trust serves a population of approximately 440,000 residents across a wide geographical area. The preponderance of elderly population, often resident in nursing homes within the area places a significant health care burden on the Trust, requiring specialist teams with the right skills to meet the complex demands of this group of patients.

The SLT Team had already shown they can deliver (within a pilot study) an improved response time (on average within 10 days (range 0-21 days) of referral. This includes weekends and the Christmas bank holiday period, comparing favourably to the usual average service response time of 12.5 days (range 5-63 days) to referrals without incurring extra costs in staffing, with an improvement in the quality of healthcare service currently delivered that is acceptable to patients, nursing homes and therapy staff. This has been achieved despite the exponential increase in demand on the service.

With this extension to the innovation, the aim was to benefit more patients in an increased number of nursing homes by delivering high quality, modern, efficient services using telehealth solutions; to engage the hearts and minds of other healthcare professionals by opening up the possibility of telehealth solutions for their services.

There were a number of additional aims

- to provide faster access to more patients through the use of the tested teleswallowing innovation
- to attempt to demonstrate a reduction in hospital admissions through the early assessment of patients before they become too ill.
- to identify patients recurrently 'at risk' and provide training to those care home staff and to provide training and hardware to those identified care homes who have residents needing intensive SLT; all via remote access.
- for the other NHS services involved in providing services to these homes to receive an introduction to telehealth training and be supported to augment their service delivery through the use of telehealth.

Collaboration with our partners (the Specialist Dysphagia Practitioner and researchers from The University of Cumbria) provided training and collection of data. Associated benefits to this SLT innovation are decreased patient transport usage; reduced specialist staff travel time; increased

access to clinical expertise with more timely assessment, advice and intervention; improved quality of care; better decision-making through peer-to-peer discussions and improved community skills and knowledge through on-site education and training.

The RIF presented the Trust with an important opportunity to facilitate fresh partnerships and to bring in different types of expertise to support the adoption of the current innovation. A strong driver is to disseminate the findings of this innovation to the wider NHS.

2. The Approach

The Clinical Project Leader aimed to build on the success of the earlier service delivery trial implemented by the Speech and Language Therapy Department which provided Teleswallowing to three local nursing homes. The approach aims to contribute to the development of a case for the adoption of telehealth as an effective method for stroke rehabilitation and a way to reduce emergency admissions to hospital in relation to dysphagia and aspiration pneumonia.

An evaluation of the small pilot study over an 8-month period demonstrated significant clinical benefits. The study shows an approach that staff could use to manage an increasing caseload through remote access to patients in nursing homes. The points in this report give a flavour of the need to deliver services differently, the process involved in designing and implementing the extension project, the data collected and some recommendations for the future. This process and the recommendations are attached in Appendix 1.

The project was funded to take place from 1st August 2014 to 31st March 2015. Three work streams were designed:

Work stream 1 – Roll out and implementation

The telesolutions pilot to be rolled out to 5 additional nursing homes. Installation of equipment, commissioning and training to be carried out and for the nursing homes to engage in a supported evaluative implementation programme.

Work stream 2 – Technology adoption case

In order to build a case for wide-spread adoption of this model the Stakeholder Empowered Adoption Model (StEAM) developed by the University of Cumbria to be used (please see the separate report).

This approach involves engagement with all key stakeholders (managers and commissioners of the SLT service, nursing homes, IT infrastructure; professional staff in SLT and other affected services; patients and carers; technology providers) to understand the barriers to and enablers of adoption. Stakeholders were asked at the outset to identify their own criteria for adoption and the evidence they require from the evaluative implementation. During the implementation phase, an iterative approach to evaluating, modifying and communicating benefits was undertaken.

The use of the equipment by other therapy services (occupational therapy, dietetics, physiotherapy etc) to be considered through staff engagement. In the final stage, when the case for technology adoption is developed it was envisaged that there would be a process of re-engagement with decision-makers to confirm that adoption evidence has been assembled and facilitate future planning of telehealth.

Work stream 3 – dissemination and influencing

A package for the adoption of this model to be developed to include guidance documents, training materials, presentations and an outline of the business case and clinical benefits.

3. Background

The NHS is being driven by ever growing demand from an ageing population and increasingly sophisticated, complex and costly treatments. The NHS Five Year Forward View (5YFV) 2014 (1), sets out a clear vision stating the contribution the NHS can make to the health of the nation and the changes (transformation) needed to meet the needs of current and future patients. This transformation requires a range of different care models, one being telesolutions ie the provision of remote access to patients. Telesolutions can mean a more efficient and effective use of scarce clinical resources.

The NHS will not achieve this vision nor the wider objectives of NHS reform without joined-up IT and telehealth technologies and processes.

Of paramount influence in future health and social care provision is the treatment of people with long term conditions (LTCs). The scale of the problem facing the UK is severe as the following statistics testify (taken from the White Paper “Equity and Excellence – Liberating the NHS) (4):

- ‘15.4 million people in England, or almost one in three of the population, have an LTC;

- three out of every five people aged over 60 in England have a LTC;
- due to the ageing population, the number of people in England with a LTC is set to rise by 23 percent over the next 25 years.
- five percent of patients with one or more LTCs account for 49 percent of all inpatient hospital bed days;
- patients with LTCs are intensive users of healthcare services. Those with LTCs account for 31 percent of the population, but use 52 percent of all GP appointments and 65 percent of all outpatient appointments;
- it is estimated that the treatment and care of those with LTCs accounts for 69 percent of the primary and acute care budget in England.’ (4)

It is recognised that face-to-face services are under significant pressure and a different way of thinking needs to be applied to finding solutions ie to promote less resource intensive ways of delivering high quality clinical management which promotes more active self-caring patients, improves patient access, reduces service utilisation costs (including primary care attendance, A&E attendance, outpatient attendance etc) and reduces emergency admissions due to proactive management – all the above are benefits from clinically-led technological solutions.

4. Costs, Results, Benefits and Recommendations from the Teleswallowing Extension Project

The project was financially supported a successful NHS England Regional Innovation Award of £44,324.00 to cover staffing (Project Leader clinical backfill, specialist clinical training, specialist data collection, analysis and report writing) and dissemination over a six month period. Further innovation funding which was previously awarded was also used to provide the equipment and connections (£44,000.00). The IT Project Manager monitored the spend on the equipment and produced an equipment cost list (Feb 2015).

The Trust’s Project Manager prepared a spread sheet whereby each contact with nursing homes could be recorded and costs revealed (eg clinicians’ time, travel costs) – please see tables below (page 10).

22 contacts via Teleswallowing were achieved (from 17 referrals) within the three month project period. The Clinical Project Leader conducted the assessments, for the majority of the time, on her own whilst running the project. Greater usage by the rest of the SLT Team and an increase in referrals by the nursing homes would have provided more usage data. However, during the time of

the project, the SLT Team was under great pressure due to reduced staffing capacity so resource had to be allocated to traditional service delivery. Nursing homes under-used the potential of the project opportunity as they, too, had normal services to deliver. Nevertheless, results show that the average time to deliver a Teleswallowing assessment is 26 minutes compared to an assumption of 90 minutes for a face-to-face home visit. With the average hourly cost of a speech and language therapist (Bands 6, 7 and 8a) being calculated at £31.73 (with on costs being taken into consideration), it is clear that savings can be made in scarce staff resource by using the Teleswallowing approach. However, as SLTs are a scarce resource, the real gains could be made in the use of the approach as a normal part of service delivery to ease patient flow thereby releasing the services of the specialist staff to work on other areas of service delivery which may need development, such as dementia care.

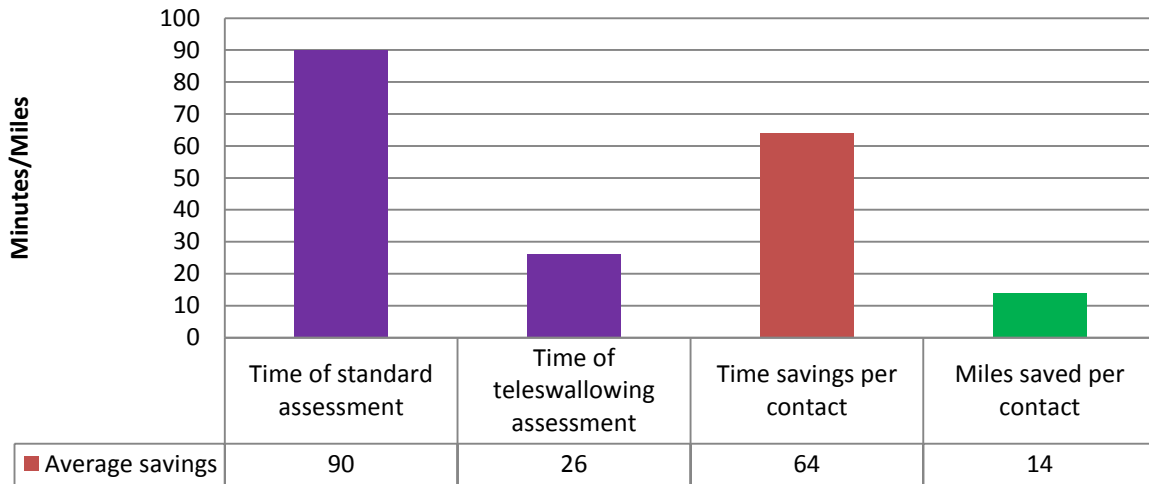
Travel savings can be made from utilising remote video assessments.

Recommendations

- clear communication is needed between all parties (clinical, management, finance, partners) when a project is planned and implemented to ensure clarity around objectives is achieved.
- to achieve most benefit from a project, all parties involved must ring-fence dedicated time and meet regularly to engage with the process.
- the use of the Teleswallowing approach will reduce the burden of patient flow and facilitate the deployment of scarce resource senior healthcare professionals to develop service delivery.

Saving comparisons of traditional vs teleswallowing contacts

(22 contacts in pilot)



Additional benefits

Opportunity cost (Clinical time)



£734.00

Cashable savings (mileage costs)



£178.00

Total

£912.00

- These savings do not include cost of equipment
- The staff time saving is not 'cashable', however it does represent an opportunity cost as theoretically this time could have been used to do something else
- The opportunity cost is based on a band 7, given that assessments are undertaken by band 6, 7 or 8 staff.

5. Further Learning from the Project

5.1 Data Analysis: there is a need to maintain the system for data analysis/audit to look at intervention effects in the longer term. This was an unexpected bonus to the study from working with the Data Analysis Team. It was learned that dysphagia is not a diagnosis which is recorded by the overall Trust systems; it is classed as a symptom which causes admissions – but recording systems do not accommodate this. There is a case for changing ways of working to deal with frequent users of the service based on knowledge from data analysis so that more patients are seen within existing staffing. This requires careful monitoring of departmental activity.

5.2 An admission history for each recruited patient has been sourced via their NHS number. This will enable the SLT Team, post project, to explore past events irrespective of the patients current address, and from this select a few suitable patients from whom they might obtain in depth qualitative data.

5.3 Effect on admission rates: there is a challenge that teleswallowing for the duration of the project, has shown any real changes in admission activity by care home as:

- dysphagia is not always coded as a reason for admission or as part of the discharge summary
- the numbers of contacts from the two trials will be too small to show cohort changes (this will improve with increased usage) and
- the timeline for the project is probably too short as the recruitment period is only 3 months. The only option is to look at single case changes, but this might be difficult if retrospective records are not identifying dysphagia.

5.4 This extension project was designed to develop and enrich the clinical case for change by testing the findings on a larger scale, to build the evidence to contribute to a business case for managers and commissioners. This has been successfully achieved partially but various restrictions (such as the delayed start to the project and the technological challenges) have constrained the true benefits this project might have produced.

5.5 A further aim of the project was to deliver shorter waiting times for all SLT patients by increasing productivity. The duration of the study period has been too short to demonstrate this and other factors such as the highly variable nature of referrals, the limited numbers of patients recruited and staffing limitations within an overstretched service have hindered this aim.

6. Recommendations

6.1 The Teleswallowing Extension Project has shown that teleswallowing is a clinical tool which when used correctly can save time and money and more importantly, distress to patients waiting on lists. This project has given the SLT Department an effective clinical tool to use in order to deliver its service and moreover to develop its future service to patients in a more effective and productive way. Teleswallowing is a clinically valid tool and now needs to be used as part of the Team's toolkit to deliver a responsive, agile service. It is a contribution to a contemporary professional practice. It is suggested that remote access clinics (for both teleswallowing and telecommunication) be incorporated into the SLT Department timetable and be operated by all clinical staff.

6.2 Designing care delivery and service models must be driven around local needs. Changed ways of working, like introducing teleswallowing, can be a challenge to staff and needs approaching with care and thoroughness, as in any significant change management exercise. Front line staff must remain in control to ensure maximum coverage and adoption and it is important for service managers to have the vision, enthusiasm and time to support and positively lead service changes. Core competencies must be developed within the workforce which can be used to demonstrate providers have the capability to deliver high quality telehealth enabled care.

6.3 The SLT Team has an understandable focus on the daily throughput of patients and the current staffing crisis gives them limited scope to future proof the service by taking on board effective working processes. A suggestion is to scrutinise current practices in order to implement and embrace new methods to increase productivity and effectiveness in the longer term. There is a need to implement a speedier process to assess and manage outpatients and to allocate resources to prevent patients lingering on the waiting list. A service redesign could reveal new ways to help specialist staff work more effectively and efficiently which will reduce the waiting list and decrease the burden for the Department. The reduction in the need for home visits will reduce travel time for clinicians (as well as reducing the travel budget). The regular use of data analysis systems will facilitate this.

6.4 SLT staff resource is prioritised on acute inpatient referrals. The outpatient dysphagic waiting list is largely unseen on a day-to-day basis and, apart from the most urgent of cases, is given a lower priority. A suggestion for the future is to consider reprioritising so that more staffing resource is

allocated to out patients (including using remote access) to prevent possible admission and its consequences (there is potential to reduce the number of frequent admissions from chronic patients).

6.5 A wider recommendation is that the Trust considers implementing clinical telesolutions in more departments to reduce the cost of home visits. NHS services are evolving and there needs to be diversity in the options of delivery. 22642 home visits were made by the Community Health Services Division in 2014 (Trust data). It is anticipated that a proportion of these services could be delivered via telesolutions. A start would be for other services going into the eight project nursing homes, to use the existing kit and infrastructure. This would start the creation of a critical mass of services using the system. Going forward, the Trust would need to recognise fully the scale and costs of change management around implementing new telehealth enabled services - and the capacity needed to operationalise the service

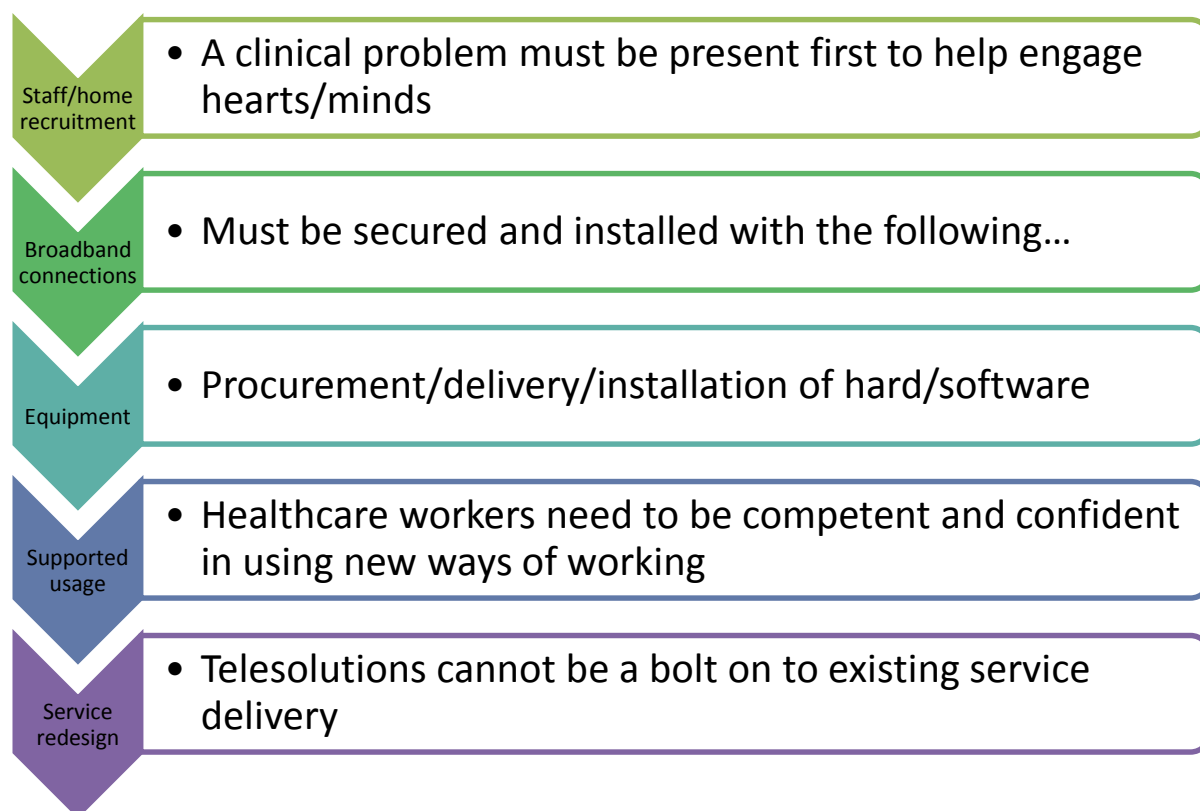
6.6 The Trust needs to decide whether it wants to adopt this change in direction in this time of staffing crisis, bearing in mind that this approach can also have unforeseen benefits, for example when travel is limited in winter due to adverse weather conditions and in summer due to staff holidays. The teleswallowing approach improves dysphagia service delivery and has benefits and value for:

- the patient – faster access to healthcare to prevent deterioration
- the individual SLT – to modernise practice implementation and increase quality productivity
- the SLT Department – to provide a quality, responsive service to the dysphagic population; to reduce staff travel time/staff travel cost, improve productivity, reduce waiting list burden, utilise staff specialist skills more effectively to develop services for the future
- the organisation – to improve patient throughput, utilise specialist staff more effectively, promote effective and modern working practices which are cost effective
- the SLT profession – contributing to the NHS 5 Year Forward View to make NHS services more responsive and agile
- the NHS and healthcare generally – to utilise different approaches using innovations in telesolutions in other care professions (reasons as above)

6.7 It is recommended that the Trust creates clear clinical leadership around telehealth, supported by 'clinical advocates' and champions. These new processes require new ways of thinking and delivering services which breaks with traditional routines. Taking time out to redesign pathways needs

upfront investment, and involves backfilling and logistics to get everyone together. Furthermore, local capacity for change management support is often limited and external support may be required.

6.8 For successful delivery of teleswallowing and other clinical telesolutions in the future, the following sequence (in this order) may be considered:



6.9 The Care Home Support Team is implementing a similar remote access scheme within care homes and improved asset productivity would be achieved by working more closely with that team to link into patients faster, provide assessment and training in an effort to reduce patient decline and subsequent admission to hospital. This could be the case for other services such as dietetics, podiatry and physiotherapy to join forces and use the remote access technology to provide healthcare more rapidly.

6.10 The importance of care pathway redesign is critical to the successful implementation of telehealth, without which there is a danger that telehealth will become a bolt-on rather than a trigger for larger scale service redesign. Given the current challenge of growing numbers of the population developing LTCs, it is no longer an option simply to continue delivering the current model whose cost

is unsustainable. Failure to redesign will only add additional costs and will not deliver better patient outcomes.

6.11 Technology support is pivotal in helping manage and sustain compliance to new ways of working. The Teleswallowing Extension Project has benefited from the continued expertise and support of the IT Project Manager and the commitment of the Trust's IM&T Manager. It is recommended that close collaboration between clinical and IT departments is maintained and grown.

6.12 This, like other telehealth projects, was achieved using non-recurring or limited development or research funding. These pilots, service evaluations or studies either end or wither on the vine when the funding stream runs out. There is the need for a strategic view that may better secure long term funding for telesolutions.

7. Conclusion

'Think beyond old solutions to problems. Our world is changing so fast that most of yesterday's solutions are no longer the right answers today. Don't get locked into a "but that's how we've always done it" mentality. Yesterday's solutions are not today's solutions and they are certainly not tomorrow's solutions.' Joshua Becker (5)

7.1 The teleswallowing approach has already passed through the experimental stage and proved itself as an alternative service model which incorporates the management of patients and the training/upskilling of staff. It already has to its credit a record of achievement that is worthy of serious thought and analysis. The pilot phase focused on the development of the approach as a clinical tool. The extension phase has provided the opportunity to investigate the approach further, collect more patient throughput data, and solve some of the more technical implementation challenges to ensure the robust nature of this delivery method.

7.2 The project has revealed a viable model of a clinical service and an IT service working together to provide modern solutions to healthcare challenges. As a result, changes need to be made in how services are designed and delivered. Certainly, this is a challenge when faced with the pressures which staffing crises bring and a general reluctance to welcome new technology as a problem-solving option. It is important to get practice engaged – staff have to be fit for it and there must be a process to engage the hearts and minds of dedicated health professionals; this may be one of the most difficult aspects to achieve if staff display entrenched views. However, health professionals are dedicated to service, and suspicion and doubt could be replaced by a creative clinical inquisitiveness and a welcoming enthusiasm to facilitate an approach designed to serve. Strong, supported leadership and training of staff in different ways of working including supported usage of new methods, will provide reassurance.

7.3 Developments in telehealth should be user and service led, not technology-led and it should be accepted that one size does not suit all. A telehealth system without an appropriate service wrapped around it will be of little or no value. Offering 'appropriate technology' (and confidence in its use and operability) is key and one size does not fit all - some patients will need sophisticated telemonitoring or videoconferencing kit; some will do just as well with access to a phone. It is prudent to offer responsive, patient-centred services, not just the blanket deployment of technology.

7.4 The benefits derived from the teleswallowing approach and telesolutions in general are definite. Telesolutions are now commonly used in industry and education. To prevent health services and the Allied Health Professions in particular, from being entrenched in the past, a new, vigorous vision for modern NHS service delivery (based on the work this Trust has already achieved) which is cost effective and responsive, needs to be embraced and within this vision, telesolutions certainly plays an important part.

Veronica Southern April 2015

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The author gratefully acknowledges the *2020health Report* 'Healthcare without Walls: Delivering Telehealth at Scale' (John Cruickshank November 2010) which provided the backbone to this report upon which she built the Teleswallowing case.

Acknowledgements

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- the nursing home staff and patients for their 'can do' attitude and motivation to make the system work
- her husband, Robert Wayne Bridges, for his unwavering belief in her and in the clinical solutions she is developing for the NHS

Appendix 1

Clinical Project Implementation with step-by-step Recommendations

1 Clinical Backfill

Activity – RIF funds were allocated to provide clinical cover for the Project Leader's two clinical days. The Trust matched the two days of RIF funded clinical cover with the two R&E days the Project Leader provided to the Trust so that she worked on the project full time.

Recommendation

- A project lead must have dedicated, ring-fenced time.

2 Recruitment of nursing homes

Activity – a number of nursing homes were identified based on referral numbers to SLT and invited to join the project. Five were chosen and recruited via e-mails and telephone calls made outlining the project. Each home was loaned a laptop (with Polycom/TeamViewer/ communication software loaded on), a webcam, a pulse oxymeter and torch and training provided regarding usage.

Recommendations

- to facilitate easy identification of appropriate homes, data collection should be recorded using postcode and nursing home name.
- time should be spent visiting the nursing homes to make personal contact to ensure commitment to the project.

3 Clinical Training (separate report available)

Activity – the skills of the Specialist Dysphagia Practitioner used in the pilot were engaged. The Practitioner delivered the training on the days and times to suit the nursing homes. The SLT Team were invited to observe the training. In addition, the Project Leader delivered communication software training to the five nursing homes.

Recommendations

- prior to clinical training being delivered, the equipment and broadband connections should be in place.

- nurse training and on-going competence checking (which can be achieved via remote access) is pivotal to ensure confidence in using teleswallowing as a clinical tool. However, nurses are aware (and should be reminded) that their clinical competence and confidence is their professional responsibility (RCN).

- confidence and competence with use of the equipment may be maintained by nursing homes linking with SLT Department/vice versa on a weekly basis.

- members of the SLT Team may now link remotely to the nursing homes to deliver communication computer therapy and this facility should be used regularly to maintain competence and confidence. The nursing homes may also use the software to provide general communication stimulation by linking the laptops with flat screen televisions in the lounge areas.

4 University of Cumbria (UoC) stakeholder interviews (see separate report)

Activity – the skills of researchers from the University of Cumbria were engaged to gather information about the acceptability of this approach to users, to gather data on the usage of Teleswallowing within service delivery and to draw together the evaluation document.

Recommendation

- it is important to engage experienced partners who can deliver specialist and impartial input to a project.

5 The supply and installation of IT equipment and connections (see separate report and documents)

Activity - The Trust's IT Project Manager undertook the procurement and installation of the laptops, webcams, software and connections into the five nursing homes. The equipment has been loaned to the nursing homes for the duration of the project and software licences – further usage after this will need to be negotiated. The IT Project Manager found solutions to bandwidth issues within the nursing homes to enable the equipment to function well. He also supplied his expertise in overcoming connection issues as the project progressed. The IT Project Manager also wrote service user guidance and documents.

Recommendations

- assessment of nursing home IT installations should be made at the start of any project

- adequate IT equipment and connections should be installed and in working order before training given and service delivery started
- clinical innovators should work closely with an identified, skilled IT colleague to ensure systems work efficiently and challenges resolved quickly to ensure confidence in the system

6 Teleswallowing assessments including SLT staff involvement

Activity - During the three month period the system was in place to remotely assess patients, 22 teleswallowing contacts (including reviews) were made from 17 patients referred. Patients from the five nursing homes were recruited to the teleswallowing approach on receipt of referral so that the project could run and staff trained. As soon as a referral was received, the nursing home was contacted and an appointment for teleswallow assessment made. The SLT Assistant encouraged the nursing home staff to prepare for the assessment in advance by having the patient sitting in an upright position, with oral hygiene completed and be attached to a pulse oxymeter. Thickened drinks and food were also prepared in advance. In this way, the therapist undertaking the teleswallow assessment could connect and be focused in the delivery of the service. The average time it took to deliver a teleswallow was 26 minutes (for the assessment) compared to an average assumption of 90 minutes which includes travel time. For the project, some note writing was necessary afterwards but it is recommended that notes be written up contemporaneously and a template has been developed to do this.

SLT staff were given opportunities to observe and carry out teleswallows with the assistance of the Clinical Project Lead for the duration of the project.

All referrals received from the eight (three from the pilot phase and five from the extension phase) nursing homes were given a teleswallow assessment. The patients presented with dysphagia relating to post stroke challenges, dementia and one with challenging schizophrenic behaviour. Swallowing decisions were able to be made from all referrals and home visits were not necessary.

Recommendations

- advice to be given to the nursing homes regarding the organisation of the assessments (a quiet room, proforma available, drinks thickened prior to the assessment etc) to enable the assessments to proceed in a calm and organised manner.

- adjustments in nurse training (eg where to place fingers for the four finger palpation technique, encouragement to listen for the patient's voice and to observe the pulse oxymeter reading) can be made via video observation as the nurses can be observed during the assessment.
- supported usage and time to engage in new service delivery methods is needed to ensure staff competency and confidence. Opportunities to explore potential beneficial ways of working can be missed when staffing capacity is under pressure.
- an active involvement by SLTs to redesign the assessment proforma to suit local requirements.
- send e-mail confirmation of assessment/recommendations to nursing homes after assessment.
- SLTs to complete proforma/paperwork throughout the assessment to save time and provide a contemporaneous record of proceedings.

7 Data analysis (see separate sheet)

Activity - The services of the Data Analysis (Unscheduled Care) Department were used to record each patient as s/he was recruited to the project. The analyst conducted a retrospective hospital admissions check to track frequent users of hospital services (for dysphagia related issues). This was done to help identify whether a faster dysphagia assessment might prevent future hospital admission. This ambition was hampered by the discovery that dysphagia is not coded as a condition, rather a symptom. However, recording the activity of frequent users of services will provide rich information for future service planning.

Recommendation

- analysis of patient data should be used routinely to actively manage patients with more acute challenges to attempt to reduce frequent and possibly unnecessary hospital admissions.

8 Dissemination

Activity - Throughout the project, the Clinical Project Lead advertised the project to others healthcare professionals (physio, dietetics, podiatry, GPs, nursing homes) to stimulate interest and possible uptake.

Post project presentations at/attendance at conferences and meetings will need to take place to spread the learning.

Recommendation

- consideration regarding how dissemination will take place, the time needed to undertake this and the costs associated should to be built into a project and the costs ring-fenced in order that dissemination is achieved.