

Delivering Voice Therapy Using Microsoft Teams

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What is Voice Therapy?

Up to a third of the population can experience a voice disorder in their lifetime ¹. In Rotherham we accept referrals for people aged 16 and above with a voice problem and have patients aged 16-95 on our caseload. Speech and language therapists (SLTs) have a central role in identifying, managing and treating voice disorders² and sessions include:

Virtual Voice Therapy



Microsoft Teams is an platform that provides chat and video conferencing via phone/tablet app or web browser. We used these for our video consultations and contact with the patient.



One Note allowed patients to fill in a voice diary and record their voice.

Cost Savings

Method of travel to appointments	Average Saving
Car parking	£2.38
Mileage	£3.20
Public Transport	£4.60
Tavi	£12 £0

- Assessment,
- Direct therapy (vocal exercises)
- Indirect therapy (vocal hygiene and voice care advice)
- Management and goal setting
- Therapist evaluation of voice quality
- Patient-reported voice symptoms
- Voice recordings

Voice Therapy and Telehealth

With advances in technology in everyday life and more access to a variety of software, there has been increasing interest in telehealth as a service delivery.

The use of telehealth for delivery of healthcare is documented in a variety of healthcare settings³. Within Adult Speech and Language Therapy studies include the areas of dysphagia, voice treatment for Parkinson's Disease, dysarthria, aphasia, language and dementia, dysfluency, traumatic brain injury and head and neck cancer.



YouTube

Youtube allows us to share voice care videos and exercises.





Files for exercise instructions and information can be shared within Microsoft Teams

Forms creates outcome measures

that patients can fill in via the app.

6 patients were surveyed after their virtual voice appointment.

100% felt that they received the same quality of therapy as a face to face appointment and would recommend it to friends and family. Use of technology, cost savings and patient comments are as follows:

I can fit the appointment to suit my home life. The quality of the video is good. I would like to continue the service. 1axi ±12.60

Average saving to the patient for a 6 session block of Therapy £46.56

Savings to the Service Resources	Average saving	
Admin time in reception (6 x 10 mins Band 3 time)	£9.38	
Paper and physical resources	£6.00	
Failed appointments (based on 1 in each 6 sessions)	£120	
Average saving ner natient for a 6 week block		

Average saving per patient for a 6 week block of Therapy £135.38

> I don't have to wear makeup and pretend I'm ok like I do when I go to normal appointments, I can just be myself!

Telehealth studies in voice therapy have focused on therapy outcomes and have demonstrated evidence of comparable perceptual and patient-rated outcomes between face to face and teleconsultation delivery^{4, 5, 6} as well as cost savings⁷.

Although it may be more widely practiced than the research suggests, the pool of evidence for this therapy delivery method in voice is limited.

My therapist is so helpful and reassures me I'm doing the right thing so when I am practising I know I am doing it properly. really recommend the service, my voice has changed so much and is back to normal & I have a toolkit of exercises

I received the same

amazing service as I

would in person.

I can have an appointment and still get to work afterwards instead of trying to juggle or be late.

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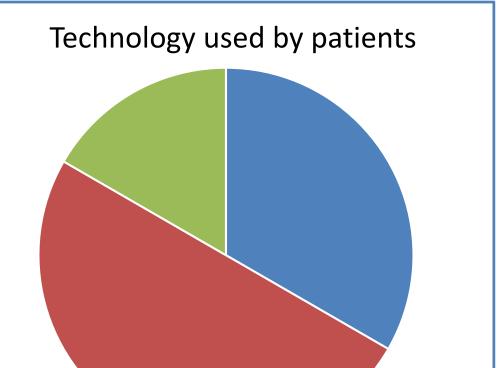


Take a breath and sustain a soft 'ee' for as long as pos
Imagine the sound is right at the front of your face
If you find this difficult, put a 'y' in front of the 'ee' to
Feel the vibrations in the bridge of your nose.

Stretching Exercise – 'whoop

Imagine your throat as an inverted megaphone where your lips are together in an 'oo' position and your throat is open Breathe and glide upwards from your lowest to your highest note on the word 'whoon'

Make sure your lips are rounded Feel the vibration on your lips Blow the air out as you go up Aim for a smooth voice as you go up Do this 3 times

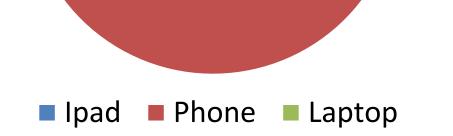


The Future

- We aim to explore the use of further applications within Microsoft Teams to support delivery of therapy and expand to other services.
- We plan to develop in-house YouTube videos of voice therapy exercises to use with Teams.

Live voice therapy consultation

Screen sharing during a consultation



• Further research is being done to evaluate the patient experience of this delivery method and compare it to face to face appointments.

Contact

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References

- 1. Roy, N., Merrill, R. M., Gray, S. D., & Smith, E. M. (2005). Voice disorders in the general population: prevalence, risk factors, and occupational impact. *Laryngoscope*, *115*(11), 1988-1995. doi:10.1097/01.mlg.0000179174.32345.41
- Royal College of Speech and Language Therapists (2019). Voice Clinical Guidance. Retrieved 7th December 2019, from <u>https://www.rcslt.org/members/clinical-guidance/voice/voice-guidance</u>
- 3. Flodgren, G., Rachas, A., Farmer, A. J., Inzitari, M., & Shepperd, S. (2015). Interactive telemedicine: effects on professional practice and health care outcomes. *The Cochrane database of systematic reviews, 2015*(9), CD002098. doi:10.1002/14651858.CD002098.pub2
- 4. Grillo, E. U. (2019). Building a Successful Voice Telepractice Program. *Perspectives of the ASHA Special Interest Groups, 4*(1), 101-110. doi:10.1044/2018_PERS-SIG3-2018-0014Fu
- Rangarathnam, B., McCullough, G. H., Pickett, H., Zraick, R. I., Tulunay-Ugur, O., & McCullough, K. C. (2015). Telepractice versus in-person delivery of voice therapy for primary muscle tension dysphonia. (Research Article) (Report). *American Journal of Speech-Language Pathology, 24*(3), 386. doi:10.1044/2015_AJSLP-14-0017
- 6. Fu, S., Theodoros, D. G., & Ward, E. C. (2015). Delivery of Intensive Voice Therapy for Vocal Fold Nodules Via Telepractice: A Pilot Feasibility and Efficacy Study. *Journal of Voice, 29*(6), 696-706.
- 7. Towey, P. M. (2012). Speech Therapy Telepractice for Vocal Cord Dysfunction (VCD): MaineCare (Medicaid) Cost Savings. International Journal of Telerehabilitation, 4(1), 37-40. doi:10.5195/ijt.2012.6095