



Healthcare
Improvement
Scotland

SHTG
Advice on health
technologies

Plain Language Summary

vCreate Neuro for the diagnosis and treatment of adults and children with epilepsy and other neurological disorders (Phase 1 Report)

SHTG Assessment | December 2021

What is epilepsy?

Epilepsy is a common condition where sudden bursts of electrical activity in the brain cause seizures or fits. There are lots of possible symptoms of epilepsy seizures, including uncontrollable shaking or losing awareness of things around you. Treatment to help people have fewer seizures, or to stop having seizures completely, include medication and surgical procedures.

What is vCreate Neuro?

vCreate Neuro is a mobile application (app) that enables patients or carers to share smartphone-recorded videos and associated information with their clinical team. The videos act as visual aid to assist clinical teams with diagnoses and management advice, including for suspected seizures and other neurological disorders.

People (adults and children) who either may have had their first seizure, or are already diagnosed with epileptic seizures, are asked to register for this service. They are then asked to download the smartphone app or access it via a webpage on any device, record a suspected seizure/s when it happens and then upload it for the clinician to review and respond.

vCreate Neuro is an asynchronous platform which enables communication between clinician and patient at different times instead of real time.

Why is this important?

The aim of vCreate Neuro is to improve patient care, reduce the number of clinic visits and investigations, and to digitise the patient pathway.

Video recordings of seizures play an increasingly important role in epilepsy diagnosis and management. Prior to the introduction of vCreate Neuro, there were no secure, managed systems for sharing videos with clinical teams in neurology within Scotland. Patients may have used unapproved routes for sharing videos, for example email and WhatsApp, or wait to show videos at their in-person appointments. This

can delay diagnosis and treatment, and risks unsecure storage of sensitive data. vCreate Neuro provides a secure video messaging service that enables patients or carers to share short recorded videos and relevant information with clinical teams.

What we did

We looked at the published evidence to find whether using an asynchronous service like vCreate Neuro would be advantageous or not in delivering care to patients (adults and children) with epilepsy and other neurological disorders.

We analyzed data collected from the clinician and patient/carer experience surveys to assess the usability, acceptability, and satisfaction from using vCreate Neuro. The data were collected following a pilot of the vCreate Neuro service within NHS Scotland.

We also assessed whether using vCreate Neuro would save NHSScotland money and resources when compared to existing in-person referral system where patients are referred by GPs or A&E to be seen by neurology specialists.

What we found

We found evidence that smartphone-recorded videos from patients or carers are a reliable complementary tool for clinical staff to use in diagnosing and treating patients who experience seizure-like episodes.

Patients/carers and clinicians who have been using vCreate Neuro as part of the pilot have found it to be beneficial. . Patients and clinicians found it easy to use and noted how the service saved time and resources. For example, use of vCreate Neuro reduced the time between referral and diagnosis. This has a positive impact on the clinician-patient/carer relationship.

Equality issues were noted including where additional assistance to use the service may be required when a patient lives alone or does not have access to high-speed internet or a smartphone.

We found that using vCreate Neuro may result in potential resource savings for NHSScotland.

What is our conclusion?

vCreate Neuro appears to be a promising tool that can be used in combination with existing patient pathway to deliver care (diagnose and treatment) for epilepsy patients in Scotland.

Further research is needed to confirm the effectiveness and overall value of vCreate Neuro for NHSScotland.

What next?

This interim report will be shared with the vCreate Neuro clinical team and NHS Scotland Digital Health and Care colleagues. The final evaluation report will be published in 2022.

This plain language summary has been produced based on SHTG Assessment – vCreate Neuro, December 2021, [on our webpage here](#).