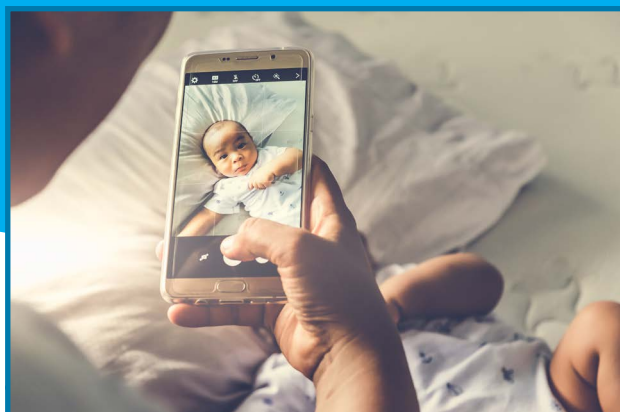


Asynchronous video transforms neonatal follow-up care for NHS Scotland



The Challenge

Across Scotland, over 6,000 babies are treated in neonatal units (NNUs) every year with many requiring continued, remote care due to ongoing medical issues or to screen for early signs of adverse developmental outcomes.

Neonatal follow-up programmes provide crucial family-centred care for high-risk infants, children, and their families. Throughout NHS Scotland, its 16 neonatal units see thousands of patients for follow-up consultations, monitoring development and for early identification of life-long conditions such as cerebral palsy in order to facilitate early intervention.

These services are traditionally conducted through in-person appointments to provide physical developmental evaluations of NNU outpatients.

Many assessments require children to perform specific actions and tests at certain stages of development while being observed by their clinical team. For example, Prechtl's General Movements Assessment is typically performed when the child is between 12-16 weeks corrected age as an early indication of underlying neurological conditions – giving teams an optimum 4-week window.

These visual investigations and specific requirements make it challenging for follow-up teams to work flexibly with families, particularly those who live long distances away or who have accessibility issues. This is a problem faced by centres across Scotland, with health boards such as NHS Highland covering an area of 12,500 square miles.

The coronavirus pandemic has only exacerbated these challenges. With disruption to routine appointments and a one-parent visitation policy enacted throughout the country, many follow-up consultations across Scotland have been postponed. As the assessments are time sensitive, such delays can put patients at increased risk of atypical development going undetected.

The Solution

Neonatal teams across NHS Scotland began investigating how asynchronous clinical video technology could be used as an additional follow-up pathway for high-risk infants and children, both for immediate use in the coronavirus pandemic and for improved practice beyond.

In August 2020, a select number of Scotland's neonatal centres started trialling the NHS trusted secure video service, [vCreate Neuro](#), as a tool to securely share and access assessment footage. When referred by the team, parents can upload smartphone-recorded videos of their baby doing the requested movements for professional review.



NHS Highland Paediatric Physiotherapist, Suzanne Offer, said: "We've been interested in virtual follow-up services for some time to tackle the geographic challenges many patients face. Previously, some of the families we see were having to make an all-day journey and an overnight stay just to attend clinic.

vCreate Neuro has given us access to a secure, family-friendly system that allows our team to be infinitely more flexible and provides further opportunities to connect with parents during their child's crucial developmental stages. This is particularly important currently as it means we can still involve both parents despite clinic visitation restrictions."

The platform's other service, vCreate Neonatal, is already implemented in over 80% of UK NNUs and allows neonatal nurses to share photo and video updates of infants on the unit with families to reduce separation anxiety when they cannot be with them.

Hilary Cruickshank, Clinical Specialist Neonatal Physiotherapist at NHS Lothian, said: "As a platform they are already familiar with through their baby's NNU stay, parents have been very receptive to using vCreate for follow-up care. When asked for feedback, parents have shared that they value the reassurance that we can provide through the system, especially after what is likely to have been a complex medical journey.

With very little training required, we found vCreate Neuro easy to use and straightforward to explain to families. Even when face-to-face appointments or live consultations were viable, the pre-recorded patient videos acted as a useful supplement to help direct our focus of care, highlighting any potential issues with a baby's development."

The system can similarly be used by neonatal teams during clinic so that a patient's movements can be recorded for closer inspection and securely shared with colleagues for a second opinion.

The Outcomes

NHS Scotland's trial of the secure clinical video service has improved remote access to neonatal care, helped hospitals continue to offer follow-up support during the pandemic and given professionals a more holistic view of patients' development.

Of NHS Lothian's experience, Hilary Cruickshank said: "The pre-recorded videos, captured during the optimum 4-week fidgety window, provide our team with a more complete picture of patients' progress. This is particularly valuable when the child is not in the optimal behavioural state during clinic for example too sleepy or too upset and when traditional appointments within that timeframe are not possible.

By offering the service to those concerned about their babies' progress, and empowering them with the universal ability of smartphone video, we have been able to identify and diagnose conditions that we would not have found so swiftly through traditional means."

Some health boards, including NHS Highland, saw an increase in the proportion of patients' 3-5 month assessments they could review. Paediatric Physiotherapist, Suzanne Offer, said: "With access to the asynchronous video pathway, we can ensure that more of our high-risk patients are regularly monitored. If we fall behind with our waiting list or increased coronavirus measures mean we cannot continue with all appointments, we still have access to and the ability to recommend parents upload this assessment footage. This also means we are more able to meet the recommendations set out in the NICE guidelines."

vCreate Neuro continues to support NHS Lothian, NHS Highland, NHS Tayside, NHS Lanarkshire, NHS Ayrshire and NHS Grampian as they provide vital follow-up services to Scottish children and families.

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Clinical Specialist Neonatal
Physiotherapist,
NHS Lothian

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Paediatric Physiotherapist,
NHS Highland



If you are interested in exploring how vCreate Neuro could assist your neonatal follow-up teams, just send an email to theteam@vcreate.tv or visit www.vcreate.tv/neuro