

Virtual Reality Simulation Systems (VRSS)

Supported by BT

WEST MERCIA RURAL
5G PROJECT



Innovative use of XR to support remote monitoring of patients (Musculoskeletal and Physio)

Tenbury Wells & surrounding areas and Malvern

Virtual Reality Simulation Systems (VRSS) is a Shropshire based medium-sized company who use simulations and extended reality to deliver productivity gains. The company operate in key sectors such as rail, education and manufacturing.

The Health XR is designed to support Musculoskeletal (MSK) pathways and is a '5G kinesio-visualisation' observer system that uses an Augmented Reality (AR) headset for real-time interactive kinesiological analytics. The platform combines rich sensors in augmented displays with server-based body-pose estimation for real-time AR kinematic analysis. It uses an AR headset to collect 3D biometric data and 5G-enabled access to real-time body-pose identification and derived analysis.



Example scenarios for use of XR to support remote monitoring of patients could be:-

- **Remote MSK Clinics**
- **Remote Physio Sessions by Community Physiotherapists**

How it could work

Clinician with AR headset can view patients data off-line or in real-time remotely

Clinicians could track, monitor, and instruct patients who are at home

HealthXR 5G Observer



HealthXR 5G Observer Remote



Benefits of use of XR to support remote monitoring of patients

Environmental

- A reduction in unwanted travel for patients – especially in rural areas

Medical

- 100% safe social distancing to reduce patients not being exposed to Covid-19
- Reduction in rehabilitation timescales (patients will gain support more quickly and therefore recover more quickly)
- Less consultations required in a medical environment

Financial

- Reduction in costs for patients (now not needing to travel)
- Increase in the number of patients a single clinical lead can support in the NHS
- Increase in the response time to support patients

Strategic Added Value

- Pilot roll out in West Mercia – increasing the region's innovative credentials

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