Belfast Health and Social Care Trust
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FOI/34500

23 September 2025

Extended Reality (XR) in Healthcare

1. Organisation's name

Belfast Health and Social Care Trust

2. Under the Freedom of Information Act, will you be reporting the use, research, purchase, development, or otherwise of an XR technology within your organisation?

- **Yes**
- **No, there are no XR products to report in my organisation**

Yes

3. Does your organisation have an established XR Technology Lab or Centre of Excellence for XR Technology?

- **Yes**
- **No**
- **Other**

Not sure

4. Please select the type of organisation that you represent:

- **Academic Institution/ University**
- **NHS Acute Trust (Hospital Trust)**
- **NHS Mental Health Trust**
- **NHS Ambulance Services Trust**
- **NHS Community Health Trust**
- **NHS Foundation Trust**
- **NHS Specialist/Integrated Trust**
- **Health Board (Scotland/Wales)**
- **Health and Social Care Trust (NI)**
- **Other**

Health and Social Care Trust (NI)

5. Please select the nature of your organisation's involvement with XR health products (please select all that are applicable)

- **We are using free XR products**
- **We are using XR products that we have purchased**
- **We are researching XR products**
- **We are developing XR products**
- Other

TKA: We are using XR products that we have purchased

ACOPS:

- Tovertafel use free XR products (games)
- Angel Eyes uses one off purchased programme
- Dementia VR pilot uses software owned by Life Lens company

OT Stroke: we are researching XR products

6. Please state the name of the product(s)

TKA: Pico Neo 3 VR headset

ACOPS:

- Tovertafel Device
- Angel Eyes
- Dementia VR (Life Lens)

OT Stroke: Meta Quest 2

7. Please provide a brief description of the product(s)

TKA: For this research study, the VR experience will be that of watching a movie in a cinema style set-up.

ACOPS:

- Tovertafel is a games console designed for use in healthcare settings that was launched in 2015 by the Dutch medical technologies company Active Cues. The console contains a high-quality projector, infrared sensors, a loudspeaker and a processor with which interactive games are projected onto a table
- Angel eyes is Northern Ireland company created by parents of children with sight loss. A primary aim of the development of Angel Eye's was to integrate a VR headset with pre programmed environments coupled with the visual effect of varying degrees of sigh loss. This was programmed to develop empathy and awareness for carers of service users who have a sight loss. This is also used to develop BHSCT staff's awareness surrounding sight loss and the impact environments / how staff work with those with sight loss can have on their daily living.

- The Dementia VR pilot is a pending pilot the Physical & Sensory Disability Service (inclusive of Dementia Day Centres within this service) with Life Lens- (private UK based company) It's a Virtual Reality (headset) and associated software pilot capturing varying environments for those living with dementia. The virtual reality is not only a visual simulation, but associates audiology within the simulation. The introduction of potential associated illness' such as dementia / Tinnitus support in the realistic approach to developing BHSCT staff and carers of those living with dementia in how to best work with service users. The primary aim is the development of empathy and compassionate care for those living with dementia. It's an annual licence, with updated developments in relation to the software and environments being simulated, affording a contemporaneous or adopted environment to suit varying conditions as well as a specific person led / service user specific environment and /or condition eg hospital ward / care home / own home.

OT Stroke: upper limb rehabilitation

8. Please highlight any unique features of the product(s)

ACOPS

The uniqueness of the Dementia VR headset captures both visual and audio components to the simulation which varies from Angel Eye's, which primarily focuses on visual simulation.

9. Please provide a link to the product website(s) if available

PICO Neo3 Link Standalone VR Headset | PICO UK

ACOPS

- Innovating the care sector with the Tovertafel | Tover
- Angel Eyes NI
- LifeLens - experience sensory challenges of dementia & ageing

10. Please select the most relevant categories for the product(s) being developed or deployed:

- **Mental Wellbeing and Therapy**
- **Physiotherapy and Rehabilitation**
- **Pain Management**
- **Clinical & Surgical**
- **Patient Education and Training**
- **Workforce Education and Training**
- **Healthy Lifestyle and Fitness**
- **Other**

TKA: Other – Patient distraction

ACOPS:

- Mental Wellbeing and Therapy (all 3)

OT Stroke: Other; Occupational Therapy rehabilitation

11. Please select how these product(s) are being or will be adopted:

- **Free to patients/staff**
- **Paid for by patients/staff**
- **Free to NHS**
- **Paid for by NHS**
- **Unknown**
- **Other**

For this research study, Trauma and Orthopaedics Research Charity has purchased the virtual reality equipment so that it is free for patients.

OT Stroke: free to patients/staff

ACOPS

- Free to patients/staff (for all 3)

12. Please select the level of maturity of the product(s)

- **Proof of concept**
- **Minimum Viable Product**
- **Early Adoption**
- **Growing Integration**
- **Established Practice**
- **Unknown**
- **Other**

TKA: Unknown

ACOPS: Unknown

OT Stroke: unknown

13. Approximately what date/year was the XR product(s) first deployed within your organisation?

TKA: 1/9/2024

ACOPS:

- 2021 – Tovertafel
- 2018 – Angel Eyes
- 2024/5 – Dementia VR pilot (life Lens)

OT Stroke: 01/06/24

14. Where and/or in how many locations is the product(s) currently offered?

TKA: During total knee replacement surgery if the patient has consented to the research study and is randomised to virtual reality, they will use the virtual reality headset for the duration of their operation.

ACOPS:

- Tovertafel -3 day centres: Edgcumbe, Carlisle, Knockbracken
- Angel Eyes – training within the Trust and / or service users homes if required as part of assessment / rehabilitation
- Dementia VR –(LifeLens) – Current to Edgcumbe Day Centre with an aim to scale to all 3 dementia day centres as part of Pilot by end of October 25.

OT Stroke: Acute Stroke Unit

15. How is the product(s) currently distributed?

- **Home use by patients**
- **Home use by staff**
- **NHS site by patients**
- **Unknown**
- **Other**

TKA: NHS site by staff

ACOPS: NHS site by patients – Tovertafel

OT Stroke: NHS site by staff

16. Please select the hardware that is used in your organisation (select all that apply):

- **Meta Quest 2**
- **Meta Quest 3**
- **Meta Quest Pro**
- **Pico 4**
- **Pico Neo 3 Pro / Eye**
- **HTC Vive XR Elite**
- **Lenovo ThinkReality XVR**

- **Valve Index**
- **Apple Vision Pro**
- **HTC VivePro 2**
- **Pimax Crystal**
- **Sony Playstation VR2**
- **Vive Focus 3**
- **Unknown**
- **Other**

TKA: Pico Neo 3

ACOPS: Unknown

OT Stroke: Meta Quest 2

17. If your organisation is involved in the development of XR products, please select the development software that is used (please select all that apply):

- **Unity**
- **Unreal Engine**
- **Godot**
- **Open XR**
- **XR Interaction Toolkit**
- **SteamVR Plugin**
- **Meta XR SDK**
- **Vive Wave SDK**
- **Varjo SDK**
- **WebXR**
- **Mixed Reality Toolkit**
- **Ultraleap Hand Tracking**
- **Unknown**
- **Other**

TKA: Unknown

ACOPS: Not Applicable

OT Stroke: Unknown

18. Please provide details of external organisations such as development partners that are involved

ACOPS

- Angel Eyes – Education Board / NHS (within NI)
- Life Lens – Dementia – currently working with University of Sterling as well as other NHS Hospitals / Trusts within the UK

19. Please provide any further details

More information on the TKA project – include publically available information at the following link - Study Details | NCT06962046 | Can the Use of Virtual Reality Improve TKA Outcomes | ClinicalTrials.gov

Information relating to the OT VR project is also readily available online Researcher View | NCT07032155 | Virtual Reality in Occupational Therapy Upper Limb Stroke Rehabilitation | ClinicalTrials.gov

A primary aim of the development of Angel Eye's was to integrate a VR headset with pre programmed environments coupled with the visual effect of varying degrees of sigh loss. This was programmed to develop empathy and awareness for carers of service users who have a sight loss. This is also used to develop BHSCT staff's awareness surrounding sight loss and the impact environments / how staff work with those with sight loss can have on their daily living.