



PRESENCE

# Health & Emotional Support

*When care can't be physical, PRESENCE makes it feel real.*

## Real-World Challenge

Medical procedures often provoke fear, stress, and pain - especially for patients with chronic anxiety or trauma. While healthcare professionals do their best to provide comfort, they are often limited by time, staff capacity, or the absence of close family during treatment. Patients undergoing routine yet emotionally charged procedures, like injections or infusions, are left feeling isolated and overwhelmed.

## Immersive Solution

PRESENCE enables a new kind of care experience - one that combines virtual companionship, intelligent assistance, and tactile reassurance to transform medical moments into emotionally supported ones. In this use case, a patient named Manuel faces a joint injection, a procedure he deeply fears. His close friend Ben cannot be there physically, but thanks to PRESENCE, he can still offer support.

Wearing a VR headset, Manuel is transported into a peaceful virtual space. There, Ben appears beside him as a holoported companion, engaging him in real-time conversation. Simultaneously, Ava, an intelligent virtual assistant, provides calm instructions and reassurance throughout the procedure. Manuel wears a haptic vest that synchronizes with Ben's gestures, when Ben reaches out to comfort him, Manuel feels it as if they were side by side.

As Dr. Garcia prepares the injection in the real world, Manuel remains immersed in an environment filled with connection, distraction, and calm. The result: lower stress, less pain, and a better care experience overall.

## Key Technologies in Action

- **Holoportation:** Enables loved ones to appear in the same virtual space during medical treatment, offering emotional presence.
- **Haptics:** Simulates the comforting sensation of touch, reinforcing the feeling of being supported.
- **IVA Support:** A virtual assistant provides guidance, information, and soothing voice prompts throughout the procedure.



Co-financed by the European Commission  
under Grant Agreement ID 101135025



# PRESENCE

## Immersive Scenario

In the virtual care room, Manuel sits near a waterfall in a peaceful digital garden. Ava's voice gently explains what will happen, while Ben chats with him about a recent football match. Ben reaches out to rest his hand on Manuel's shoulder, and thanks to their haptic gear, Manuel actually feels the pressure and warmth. For the first time, he doesn't feel alone.

Dr. Garcia administers the injection while Ava continues to distract and comfort. The procedure is over before Manuel even realizes it. Instead of fear, he remembers connection and care.

## Technology at a Glance

PRESENCE humanizes healthcare by restoring emotional closeness in clinical settings. It reduces anxiety, builds trust, and makes medical experiences more manageable. For patients who are alone, vulnerable, or scared, PRESENCE turns sterile procedures into moments of shared support.

## Applications & Domains

- 🧠 Mental Health
- 📺 Remote Companionship
- 👶 Pediatric & Geriatric Support
- 🏠 Outpatient Care



**"A hand to hold — across any distance."**