

SPACES

Strengthening Primary And Community hEalth Systems. Innovative Telerehabilitation and Telemonitoring Approaches:Enhancing Accessibility and Patient-Centered Care

ABSTRACT

Rare bone disorders (RBDs) are a heterogeneous group of skeletal conditions, often resulting in severe physical disabilities and reduced quality of life. Despite advancements in medical care, individuals with RBDs face challenges in accessing specialized care due to a combination of factors, including geographical fragmentation, long distance from service, limited mobility, scarcity of specialized adult care, absence of clinical guidelines, and limited access to rehabilitation programs. Innovative and patient-centered solutions are needed to ensure equitable, effective care. Telerehabilitation is a transformative approach that leverages technology providing remote, personalized rehabilitation services. By overcoming geographical barriers, it enhances access, continuity of care, and patient empowerment. However, there is a pressing need for robust, evidence-based frameworks to adapt these technologies specifically for RBDs, which require highly individualized care due to their complexity.

This project intends to fill these gaps by developing and validating a telerehabilitation program designed to meet the needs of individuals with RBDs across European healthcare settings. It combines digital tools and a multidisciplinary approach to deliver personalized care directly to individuals close-to-home. By integration of tailored rehabilitation exercises, remote monitoring of physical performance using wearable sensors and digital reporting tools, expert input from multidisciplinary teams, and real-time feedback to motivate adherence, the project seeks to optimize patient outcomes.

The project aims to demonstrate the efficacy of telerehabilitation in improving physical functionality, psychological well-being, and overall quality of life for individuals with RBDs. Its holistic and patient-centered model is designed to be scalable and adaptable, serving as a blueprint for other chronic conditions while contributing to a more integrated and equitable European healthcare system.

KEYWORDS

- Rare bone disorders
- Telerehabilitation
- Patient-centered care
- Digital tools
- Wearable sensors
- Multidisciplinary approach
- Healthcare sustainability

DURATION

36 months

PARTNERS

	Name and Surname of the Principal investigator	Institution, Department, full Affiliations	City, Country
Coordinator (= Partner 1)	Luca Sangiorgi	Istituto Ortopedico Rizzoli	Italy
Partner 2	Paolo Pillastrini	Alma Mater Studiorum - Università di Bologna	Italy
Partner 3	Sérgio Sousa	Unidade Local de Saúde de Coimbra, E.P.E.	Portugal
Partner 4	Gonzalo Ruiz-Zurita	Fundación Para La Investigación Biomédica Del Hosptial Universitario La Paz	Spain
Partner 5	Maria Gonzalez Cerrajero	Innovación Biosanitaria de Atención Primaria	Spain
Partner 6	Inês Alves	ANDO Portugal	Portugal