

Digitization of care in rheumatology: design and testing of an integrated patient care model

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- **Background e objectives:** Digital technology offers useful supports to ensure integrated care of rheumatoid arthritis patients. However, the telemedicine services' supply in Italy still seems insufficient. It's important to choose the digital tool not only basing on clinical conditions but also on the level of patient engagement, i.e., the patient's psychological motivation for an active role in care and digital usage. The literature shows that patient engagement is a key determinant of the success of digital care initiatives: according to the level of patient engagement, the readiness for digital care can change, independently of the clinical condition.

- **Materials and methods:** EngageMinds HUB, Politecnico di Milano, and APMARR executed a research with the following phases: 1) literature review + 7 preparatory interviews with rheumatologists - to map existing digital health initiatives in rheumatology in Italy 2) 2 workshops and follow-up interviews (with 8 rheumatologists, 5 GPs and 7 nurses) to select scenarios to work on, to identify which digital tools to use and to define design principles 3) survey on 85 Italian rheumatologists to collect experiences and expectations about digitization of care in rheumatology.

- **Results:** From the qualitative phases, emerges the appropriateness of PROMs for the follow-up of patients with rheumatoid arthritis, provided that: clinical data are used jointly; the application that collects PROMs is GDPR compliant and interoperable with the patient's medical record; the patients' request can be personalized for frequency and question types. Also emerges the usefulness of integrating PROMs with tools assessing the engagement level. The level of patient engagement, to be diagnosed with the PHE-S® is useful for clinicians to understand the person's readiness to collaborate with the healthcare system and to identify the need for psychological support. The nurse is found to be the appropriate figure to manage the reading of PROMs and levels of patient engagement before the specialist visit. The survey shows the disposition of rheumatologists to use digital tools in their interaction with patients, although at present the most popular channels are traditional phone calls, emails, and messaging. Regarding telemedicine tools, teleconsultation is widely used in rheumatology: 1 out of 3 clinicians used it to reach the patient's GP, and more than 40% discussed their patients' problems with another specialist. The whole sample (100%) agrees on the increasing importance of teleconsultation in rheumatology patients' management. Teleconsultation in the last year has been adopted by almost half of the sample. A sign of openness toward digital use in rheumatology clearly emerges: if today 15% of clinicians attach little importance to the introduction of digital tools, 63% of them believe that in the next year we will see an increase in their use.

- **Conclusions:** These results tell us how the combined use of PROMs and PHE-S® in the care process assumes crucial relevance in order to, on the one hand, ensure integrated patient management that considers both clinical and psychological aspects (patient engagement), and, on the other hand, to provide supportive and informative pathways that are tailored to the needs-medical and emotional-of the patient.