

Implementation of telemedicine and home medication dispensing for rheumatoid arthritis patients in Sicily: opportunities beyond the pandemic

Giovanni Pistone

U.O.S. Rheumatology, National Relevance Hospital Trust (ARNAS) “Civico – Di Cristina – Benfratelli”, Palermo - Italy

Dear Editor,

Italy was the first European country hit by the SARS-CoV-2 pandemic. Although the Italian government adopted different measures to limit the spread of the virus, on March 9, 2020, the prime minister finally put the entire country on lockdown (1). Since its beginning, the pandemic drastically changed the clinical practice in all medical fields, including rheumatology (2). Rheumatoid arthritis (RA) is a chronic, inflammatory, and autoimmune disorder that mainly affects the joints. Patients affected by RA frequently need a close follow-up to manage their therapy and prevent disease flares (2).

Sicily is Italy's largest island and includes numerous smaller islands such as the Aeolian Islands. These minor islands represent a critical point for the Italian National Health Service, ensuring that all citizens receive appropriate levels of care (3).

From September 2020 to March 2022, the disease activity of 210 patients with RA in Sicily was evaluated using the health assessment questionnaire (HAQ) and the Disease Activity Score in 28 Joints using erythrocyte sedimentation rate (DAS28-ESR). According to the therapy received, patients were divided into three groups of 70 persons each: (1) anti-tumor necrosis factor (TNF)- α , (2) anti-interleukin (IL)-6, or (3) co-stimulation modulators. A telemedicine follow-up and a home medication dispensing service were available for patients in the first group. In contrast, patients from groups two and three had to pick up their drugs and visit the hospital. This qualitative study aimed to establish whether the home dispensation drug service should be continued after the pandemic.

The three groups had similar age distributions (anti-TNF- α : 64.2 ± 15.2 years; IL-6: 62.5 ± 14.8 ; co-stimulation modulator: 61.6 ± 14.6). Our preliminary results showed that patients who benefited from a home dispensation service reported better HAQ and DAS28-ESR values than patients who did not (HAQ anti-TNF- α : 2.3 ± 0.4 ; HAQ IL-6: 2.9 ± 0.3 ; HAQ co-stimulation modulator: 2.8 ± 0.3 ; DAS28-ESR anti-TNF- α : 3.1 ± 1.3 ; DAS28-ESR IL-6: 3.5 ± 1.4 ; DAS28-ESR co-stimulation modulator: 3.6 ± 1.4). The automatic renewal of the treatment plan, the possibility of electronically sending the exams, and the ability to virtually talk to patients improved patients' health conditions in the first group over the other two. These virtual contacts were mediated by the local general practitioner and were possible thanks to the collaboration between the prescribing centers and the territorial services.

These results indicate that home dispensing service helped in complying with the treatment plan during the pandemic in Sicily (including 25 patients living in minor islands). It is quite possible that the different HAQ and DAS28-ESR scores resulted from different levels of adherence to therapy by patients who received their medication at home and those who had to pick it up at the hospital, a task extremely difficult at the time of the pandemic.

In our opinion, the home medication dispensing service should be continued even after the pandemic since it would benefit all patients who would still have difficulty reaching the hospital. Telemedicine should be carefully implemented by selecting the most suitable patients, specifically those in remission or with a low disease activity. I believe that alternating home and hospital dispensing would allow us to plan a hospital visit every 8 months instead of 4 months, leading to a better balance between the clinical needs and the logistical necessities of patients and positively impacting their quality of life.

Key message: Home medication dispensing in RA can positively impact therapeutic adherence and patients' quality of life.

Disclosures

Conflict of interest: The author declares no conflicts of interest.
Financial support: None.

Received: December 5, 2022

Accepted: December 7, 2022

Published online: December 21, 2022

Corresponding author:

Giovanni Pistone

U.O.S. Reumatologia

ARNAS Ospedali “Civico – Di Cristina – Benfratelli”

P.zza Leotta Nicola, 4,

90127 Palermo (PA) - Italy

dott.pistone@virgilio.it



References

1. Giuliani D, Dickson MM, Espa G, Santi F. Modelling and predicting the spatio-temporal spread of COVID-19 in Italy. *BMC Infect Dis.* 2020;20(1):700. [CrossRef PubMed](#)
2. Chevallard M, Belloli L, Ughi N, et al. Use of telemedicine during the COVID-19 pandemic in patients with inflammatory arthritis: a retrospective study on feasibility and impact on patient-reported outcomes in a real-life setting. *Rheumatol Int.* 2021;41(7):1253-1261. [CrossRef PubMed](#)
3. Sicilian "Assessorato della Salute" – Department of Strategic Planning. PROGETTO TRINACRIA. Progetto per l'ottimizzazione dell'assistenza sanitaria nelle piccole Isole e in località con particolare difficoltà di accesso della Regione Siciliana [Internet]. 2016. [Online](#). Accessed July 2022.

