Supplementary material

Search approach

We searched publications in PubMed, EMBASE, MEDLINE, Cochrane Database, Web of Science and Conference Proceedings on July 5th, 2022 and September 6th, 2022. The search was made using the terms (telemonitoring OR telemedicine OR telemanagement) AND ((inflammatory bowel disease) OR (Crohn's disease) OR (ulcerative colitis)). It was limited to titles, abstracts and keywords in the EMBASE, MEDLINE, Web of Science, Cochrane Database and Conference Proceedings. We did not apply limitations in the PubMed database. The reference lists of included articles were also screened to find relevant publications not obtained with the search strategy. Two investigators (JHF and AGM) independently performed the search and selected papers for full review according to the selection criteria. Disagreements were solved by consensus of all authors.

Study selection criteria

We included studies that evaluated the effect of telemonitoring (alone or in combination with tele-education) on disease activity, QoL, disease knowledge, self-efficacy and use of healthcare resources in patients with IBD (adult and paediatric patients). We considered controlled randomized clinical trials comparing the intervention with usual care, but also pilot noncontrolled studies evaluating the feasibility and acceptance of telemonitoring platforms. Studies presenting results of telemonitoring projects already tested in real life were also included.

We excluded papers about teleconsulting or tele-education without telemonitoring, reviews, letters and papers not written in English or in Spanish. We excluded commercial telemonitoring apps not tested for their effectiveness or efficacy.

Data presentation

The evolution of the different platform features tested in patients with IBD, as well as the enablers and barriers encountered during their development was presented in the body of the manuscript. The impact on clinical outcomes and data about cost-effectiveness of telemonitoring in this setting were synthesized and compared. The accuracy of the main PROMs, PoC and home-based tests used for patients self-monitoring in the reported studies was described.

The main enablers and barriers were presented in Table 1, and the full reviewed papers were summarized in Table 2. For each paper presented, we included the family name of the first author, the disease profile (IBD, CD or UC), the type of study, the sample size, the application used for telemonitoring and the main outcomes evaluated.

Flowchart of the selected publications

The flow diagram of the studies identified, screened, reviewed and included is presented below.

Identification

Records identified from PubMed, EMBASE, MEDLINE, Cochrane Database, Web of Science and Conference Proceedings:
($n = 1383$)

Records removed before screening:
Duplicate records removed ($n = 605$)

Screening

Records screened
(n = 778)

Records excluded
($n = 681$)
    Not about IBD
    Not about an IBD platform
    No abstract available
    Not available neither in English nor in Spanish

Review

Reports selected for full review
($n = 97$)

Reports excluded:
    Not using telemonitoring
    Not evaluating health outcomes or healthcare use
    Not original studies

Included

Studies included in review
($n = 20$)