

The use of Mobile Applications in the Perioperative Management of Patients with Colorectal Cancer

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Abstract

Background and Aim: Colorectal cancer is the third most common cancer worldwide both in men and women. The scope of this systematic review was to investigate if mobile applications exist and what are the benefits in the screening, diagnostic, pre-operative preparation, or post-operative follow-ups on the patients with colorectal cancer. *Materials and Methods:* We used the frame of PRISMA guideline. On September 1st, 2023, we systematically searched PubMed using the MeSH terms "Colorectal Neoplasms" and "Mobile Applications". No restrictions on the types of articles or publication date were imposed. *Results:* A total of 24 items were retained. The article's titles and abstracts were screened and 7 articles were removed due to the absence of the abstracts (n=2), the article described a prognostic scoring model (n=2), one was a systematic review, one was reviewing the use of SMS and one was a letter to the editor. Out of the 17 remaining articles, only 7 were available in full text and all were testing mobile applications. The scope of using the applications was to facilitate screening (n=3), recovery (n = 3) and monitor chemotoxicity (n=1). *Conclusions:* Mobile tools appear as an opportunity for rapid access and increased adherence to colorectal cancer screening guidelines. Mobile applications focused on patient recovery post colorectal cancer surgery need a more patient-centric approach. The mobile application built for monitoring chemotoxicity was deemed to address many of the limitations of identifying and quantifying chemotherapy toxicities. All in all, mobile applications may enhance existing clinical care and provide cost-effective real-time patient support, which may reduce the likelihood of hospital admission.

Keywords: Colorectal Neoplasms; Mobile Applications; Screening; Monitoring

