The Scope and Effectiveness of Interactive Voice Response Technologies in Post-Operative Care

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Abstract: More than one million surgeries are performed each year in Canada, resulting in more than 100,000 associated serious adverse events (SAEs) per year. These are defined as unintended injuries or complications that adversely affect the well-being of patients. In recent years, there has been a proliferation of digital health interventions that have the potential to assist, monitor, and educate patients—facilitating self-care following post-operative discharge. Among digital health, interventions are interactive-voice response technologies (IVRs), which have been shown to be highly effective in certain medical settings. Although numerous IVR-based interventions have been developed, their effectiveness and utility remain unclear, notably in post-operative settings. To the best of our knowledge, no systematic or scoping reviews have evaluated this topic to date. Thus, the objective of this scoping review protocol is to systematically map and explore the literature and evidence describing and examining IVR tools, implementation, evaluation, outcome, and experience for post-operative patients. The focus will be primarily on the evaluation of baseline performance status, clinical assessment, treatment outcomes, and patient management, including self-management and self-monitoring. The objective of this scoping review is to assess the extent of the literature to direct future research efforts by identifying gaps and limitations in the literature and to highlight relevant determinants of positive outcomes in the emerging field of IVR monitoring for health outcomes in post-operative patients.

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