

Supplementary Table 3. Deviations from the study protocol

Protocol Method	Deviation from protocol method, with justification
We planned on including studies of all designs regarding the association between exercise during cancer treatment and hospitalisation outcomes, including RCTs, non-RCTs and case-control studies.	<p>The initial intention of this study was to be a systematic review only, as we were not sure that there would be sufficient RCTs published to conduct a meta-analysis. Our overall search yielded 32 studies from the PROSPERO inclusion criteria, including n=20 RCTs and n=12 non-RCT studies (n=12). After consultation with the co-authors regarding our final search yielding a sufficient number of RCTs, we decided to refined our approach to remove the non-RCTs from the inclusion criteria and only focus on the RCT studies.</p> <p><i>Type of deviation: omission</i></p> <p>This strategy allowed for a thorough comparison with a control group comparison by adding a meta-analysis method to the protocol to answer the research question with a higher degree of evidence than originally planned.</p> <p><i>Type of deviation: addition</i></p>
Addition of adverse events as a secondary outcome	<p>While we did not initially include adverse events as an outcome in the PROSPERO registration, we added it after consulting with a Professor of Cancer Nursing, who suggested that adverse events would be a clinically important addition to the paper to highlight the importance of safety when delivering an exercise intervention during treatment, which would complement the findings related to hospital stay.</p> <p><i>Type of deviation: addition</i></p>
We added sensitivity analyses investigating the effect of different exercise doses on hospitalisation outcomes	<p>Our initial intention was to investigate the effects of exercise interventions broadly across the common cancer treatments of chemotherapy, radiation and stem cell transplant. With great suggestions from the peer reviewers, we added the following sensitivity analyses to the protocol, which provide meaningful data to the research question:</p> <ol style="list-style-type: none"> 1) Analysing the effect of exercise type (resistance, aerobic, mixed), days per week of exercise prescribed (≥ 5/< 5 days), and level of supervision (supervised, unsupervised, partially supervised) on the hospital outcomes 2) Analysing the two pediatric studies separately from the adult studies due to potential differences in physiology, exercise prescription and treatment regimens.

	<i>Type of deviation: addition</i>
Database search	<p>Our PROSPERO registration included six databases including Medline, EMBASE, Scopus, SPORTDiscus, Pedro and CINAHL, while the submitted manuscript searched four databases including Medline, EMBASE, Cochrane Central Register of Controlled Trials and PEDro. After consultations with a university librarian with extensive experience in systematic reviews, it was suggested that modifying our search to the final databases searched would provide a comprehensive search to the studies sought after.</p> <p>Further, the databases we searched were the same databases as a recent BJSM article on pre-cancer surgery exercise (https://pubmed.ncbi.nlm.nih.gov/29437041/), while we additionally also searched the Cochrane Central Register of Controlled Trials database, demonstrating our search within the field is as comprehensive as other landmark publications.</p> <p><i>Type of deviation: omission</i></p>