Protocol Brief

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Safety and effectiveness of dose-sparing strategies for seasonal influenza vaccine: rapid scoping review of fractional dosing of the Intramuscular influenza Vaccine

Rationale

Given potential resource-constraints for the upcoming influenza season, there is a need to scope the evidence on the safety and effectiveness of dose-sparing strategies for intramuscular administration of seasonal influenza vaccines.

Implications

The results of this rapid review will be shared with the Centre for Immunization and Respiratory Infectious Diseases of the Public Health Agency of Canada (PHAC) to address their query on the safety and effectiveness of fractional dosing of seasonal influenza vaccines

OSF registration: https://osf.io/8mwz2/

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Objective

- To identify potentially safe and effective dose-sparing strategies for administration of seasonal influenza vaccines in healthy individuals of all ages that have been evaluated in human trials through the following research question (RQ):
    - RQ: What is the safety and effectiveness of using fractional dosing strategies to deliver intramuscular seasonal influenza vaccines?

Methodology

- Eligibility Criteria using the PICOS framework:
  Population: Healthy humans of any age
  Interventions: Intramuscular influenza vaccine administration using a dose-sparing strategy
  Comparators: Standard dosing, no intervention or placebo
  Study designs: RCTs, NRCTs, and observational studies
- **Literature Search:** Will be developed by an experienced librarian for MEDLINE, EMBASE, and the Cochrane library. Grey literature will be searched via international clinical trial registries. Limited the search to the last 20 years.
- **Study Selection/Data Abstraction:** A screening form based on eligibility criteria will be prepared and a pilot-test will be conducted prior to citation and full-text screening. Screening of citations will be completed by pairs of reviewers working independently using Synthesi.SR, the team's proprietary online software. A third reviewer will be consulted to resolve discrepancies. Will include study characteristics, patient characteristics, intervention details, comparator details, and outcome results at the longest duration of follow-up. We will complete a calibration exercise of the form using a random sample of 5 included articles. Included studies will be abstracted by a single reviewer. A second reviewer will verify the outcome data.
- **Synthesis:** Results will be presented narratively including detailed tables summarizing study characteristics and study results.

Knowledge Translation Strategy

- Results will be sent to the Public Health Agency of Canada and other relevant Drug Safety and Effectiveness Network policy-makers as a brief summary report and a 1-page policy brief. We will also draft and submit a manuscript to an open-access, peer-reviewed journal for publication.

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