Global Influenza Initiative

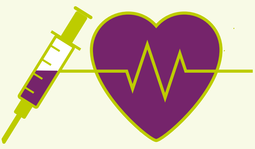
Influenza vaccination and major cardiovascular risk: a systematic review and meta-analysis of clinical trials studies

Cardiovascular (CV) diseases are the leading cause of death globally, and influenza and other infections have been implicated in triggering CV disease complications

Omidi et al conducted a comprehensive, updated study to examine the potential impact of influenza vaccination on reducing the risk of CV events

STUDY AIM:

To assess the potential impact of influenza vaccination on major CV events through a systematic review and meta-analysis of data from clinical trial studies



METHODS:

The medical literature was searched for **randomised controlled trials** which explored this topic using PubMed/MEDLINE, EMBASE, and the Cochrane CENTRAL databases **up to 1 August 2023**

Inclusion and exclusion criteria were applied and a **quality assessment** was performed on included studies

A **meta-analysis** and **stratified analyses** were performed to investigate outcomes, including:

myocardial infarction (MI)

CV death

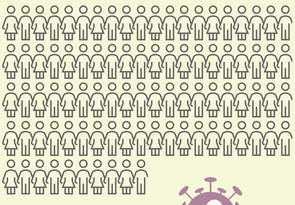
stroke

KEY FINDINGS

5 studies met the predetermined inclusion criteria

4/5 of these studies met the Cochrane criteria for **high quality**

9059 patients
were included
in this study

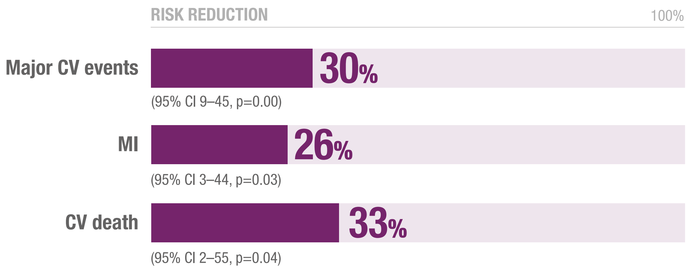


4529 patients
had received intramuscular influenza vaccination

Randomisation

4530 patients
had received intramuscular placebo

Patients who received influenza vaccine experienced significant reductions vs placebo in their risk of:



The effect of influenza vaccination did not reach statistical significance for stroke (p=0.77)

> **This study provides compelling evidence that influenza vaccination is associated with a decreased risk of major CV events, particularly MI, and CV death [and highlights] the potential of influenza vaccination as an adjunctive strategy in CV disease prevention**

To download a copy of this infographic visit the Nivel FluCov website:
FluCov: Influenza-COVID-19, understanding and communicating the impact of COVID-19 on influenza activity | Nivel

CV, cardiovascular; MI, myocardial infarction.

Reference: Omidi F, et al. Influenza vaccination and major cardiovascular risk: a systematic review and meta-analysis of clinical trials studies. Sci Rep 2023;13(1):20235.