Clinical reviews

Our panel of GPs review recent research papers in their specialist areas that may influence the way you practise

Reviewers

Addiction
Dr Jez Thompson
MB ChB MSc MRCGP
GPwSI substance misuse, Leeds

Cardiovascular disease
Dr Peter Savill
BSc (Hons) MBBS PGDipCard
Former GP, Community Cardiology Specialist, Southampton and Mid Hampshire

Diabetes
Dr Matthew Lockyer
MB BS DCH DRCOG DFFP MRCGP
GP with an interest in diabetes, Suffolk

Mental health
Dr Phillip Bland
BA BM BCh MRCGP DRCOG
Former GP with an interest in mental health, Dalton-in-Furness

Obstetrics and gynaecology
Dr Chris Barclay
MB ChB FRCOG
GP with an interest in O&G, Suffolk

Paediatrics
Dr Chris Barclay
MB ChB FRCOG
GP with an interest in paediatrics, Suffolk

Respiratory disease
Dr Peter Saul
MB ChB DCH DRCOG FRCGP
GP with an interest in respiratory disease, Wrexham and Associate GP Dean for North Wales

Sexual health
Dr Richard Ma
MRCGP DFSRH DCH DRCOG DipGUM DrPH
GP with an interest in sexual health and NIHR Research Fellow, Imperial College, London

Smoking cessation
Dr Jez Thompson
MB ChB MSc MRCGP
GPwSI substance misuse, Leeds

Cardiovascular disease

Flu vaccination reduces all-cause mortality in heart failure patients

Influenza vaccination was associated with a significantly lower risk of all-cause mortality in patients with heart failure, a meta-analysis has found. However, the effect on cardiovascular deaths and hospitalisations was not significant.

The investigators conducted an electronic search of MEDLINE, Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews, Health Technology Assessment and PsycINFO databases. They looked for longitudinal studies evaluating influenza vaccination compared with non vaccination in patients with heart failure.

Six retrospective and two prospective cohort studies were included in the review. The mean age of patients ranged from 62 to 75 years. The meta-analysis for all-cause mortality used data from six cohort studies covering a total of 179,158 patients with heart failure.

- Influenza vaccination was associated with a lower risk of all-cause mortality: hazard ratio (HR) 0.83 (95% CI: 0.76-0.91)
- However, it had no statistically significant effect on cardiovascular mortality: HR 0.92 (95% CI: 0.73-1.15) or all-cause hospitalisations; HR 1.01 (95% CI: 0.92-1.11)

The researchers conclude: 'The main finding of this review is that best available evidence, based on low quality cumulative data, shows that the influenza vaccination is associated with a significantly lower risk of all-cause mortality in patients with heart failure.

'The studies that led to this conclusion are contemporary, all published between 2014 and 2018,' they add.

The authors concede that there were several limitations. Some of the studies relied on self-reporting of vaccination status. None of the included studies reported the type or the dose of influenza vaccine used. They stress that more observational studies and randomised trials are required to confirm the beneficial effects of the influenza vaccine on mortality and other important outcomes for patients with heart failure.

There is a robust body of evidence to guide interventions in patients with heart failure but despite this the syndrome still has a high morbidity, mortality and economic burden. It remains the leading cause of hospitalisation in the elderly and the estimated all-cause mortality at one year is 17.4% in acute heart failure and 7.2% in chronic heart failure.

Respiratory infections, including influenza, are one of the most important triggers for acute exacerbations and are also associated with high hospital mortality rates.

Primary care is extremely effective at delivering vaccination programmes and seasonal influenza vaccination is no exception. This is a key area which could have significant benefit for patients with heart failure.

DR PETER SAVILL

Rodrigues BS, David C, Costa J et al. Influenza vaccination in patients with heart failure: a systematic review and meta-analysis of observational studies. *Heart* E pub ahead of print: 23 August 2019. doi: 10.1136/heartjnl-2019-315193