

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 MRCP
GPwSI substance
misuse, Leeds, UK

Cardiovascular disease

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

Diabetes

Dr Matthew Lockyer
MB BS DCH DRCOG
DFFP MRCP
Former GP with an
interest in diabetes,
Suffolk, UK

Mental health

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

Obstetrics and gynaecology

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

Paediatrics and allergy

Dr Peter Saul
MB ChB DCH DRCOG
FRCGP
GP with an interest in
paediatrics and allergy,
Wrexham, Associate
GP Dean N. Wales,
Visiting Professor
Glyndwr University, UK

Respiratory disease

Dr Peter Saul
MB ChB DCH DRCOG
FRCGP
GP with an interest in
respiratory disease,
Wrexham, Associate
GP Dean N. Wales,
Visiting Professor
Glyndwr University, UK

Sexual health

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

Smoking cessation

Dr Jez Thompson
MB ChB MSc MRCP
GPwSI substance
misuse, Leeds, UK

Obstetrics and gynaecology

HPV vaccination lowers risk of invasive cervical cancer

Introduction of the quadrivalent human papilloma virus (HPV) vaccination programme in girls and young women in Sweden has led to a substantially reduced risk of invasive cervical cancer at population level, a national study has shown.

HPV vaccination was approved in Sweden in 2006. An HPV vaccination programme for girls aged 13-17 years was introduced in 2007. A subsequent catch-up programme for older girls and young women, aged 13-18, and a school-based vaccination programme for girls aged 10-12 were introduced in 2012.

Using the national population register, the researchers identified a cohort of girls and women 10 to 30 years of age between the years 2006 and 2017. They were followed from either their tenth birthday or 1 January 2006 (whichever was the later date) up to their 31st birthday or the end of 2017 (whichever was the earlier date). None of the participants had received HPV vaccination or a diagnosis of invasive cervical cancer prior to the study. Vaccination information was obtained using three registries and all but 8% of recorded doses could be correlated with at least two databases.

Overall, 1,672,983 participants were tracked and of these 527,871 had received at least one dose of vaccine. The majority (83.2%) of those vaccinated received this before the age of 17.

The cervical screening programme in Sweden starts at age 23 and the cumulative increase in cervical cancer diagnosis increased from that age.

Cervical cancer was diagnosed in 19 women who had received the quadrivalent vaccine and 538 women who had not received the vaccine.

Among unvaccinated women there were 94 cases per 100,000 compared with 47 cases per 100,000 in the vaccinated group by 30 years of age.

For women who had had their first vaccination before the age of 17, the cumulative incidence was 4 per 100,000 by the age of 28.

After adjusting for sociodemographic covariates, incidence rate ratios for cervical cancer were:

● 0.12 (95% CI: 0.00-0.34) in women who had been vaccinated before the age of 17 years

● 0.47 (95% CI: 0.27-0.75) in women who had been vaccinated aged 17-30 years

The study authors state: 'In this population-based cohort study, we found that quadrivalent HPV vaccination was associated with a substantially lower risk of invasive cervical cancer. When the analysis was stratified according to age at vaccination, the reduction in incidence of invasive cervical cancer was more pronounced among women who were vaccinated at a younger age.'

This study offers good evidence for the beneficial effects of HPV vaccination at a young age.

DR PETER SAUL

Lei J, Ploner A, Elfström KM et al. HPV vaccination and the risk of invasive cervical cancer. *N Engl J Med* 2020;383:1340-48 ➤