Whilst several variations in scheduling exist no superiority was demonstrated with any one approach.

The results of this review do not indicate the benefit of a change in the scheduling or vaccine component of pertussis vaccines currently used in the Irish childhood vaccination programme.

P366 THE INTEREST OF ANTI HEPATITIS B VACCINATION AT BIRTH

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In Benin, anti hepatitis B vaccination begins at six weeks of age under the EPI, while WHO recommends a dose at birth to prevent perinatal transmission, which is responsible for the onset of chronic infections.

Objective To compare vaccine seroconversion against hepatitis B between 9-month-old children who had received or not a dose of anti hepatitis B vaccine at birth in two health units at Cotonou.

Methods This was a cross-sectional study. we included 9-month-old children and their mothers received in vaccination at CHU-MEL (where vaccination at birth was automatically offered) and the primary health care of Cotonou I (where only the EPI was offered). The study occurred from April to June 2017. The socio-demographic and immunization data (immunization status, anti HBS, HBS Ag) were studied. They had been processed and analysed with Excel 10 and SPSS 21 software. Pearson's student and correlation tests were used for comparisons and the significance threshold was 5%.

Results A total of 128 mother-child couples were recruited; Half of the children were vaccinated according to the 4-dose regimen and the other, according to the 3-dose regimen. The incidence of hepatitis B was 9.38% for mothers (n = 12) and 1.62% for children (n = 2). The average antibody title was 617 IU/l in children at 4 doses versus 395UI/L in 3-dose patients. This difference was statistically significant (p= 0.023).

Conclusion The 4-dose vaccine regimen, one at birth, provides a better immune response. The inclusion of vaccination against hepatitis B at birth in the EPI is indispensable.

P367 TO SWITCH OR NOT TO SWITCH: THE BENEFIT OF QUADRIVALENT INFLUENZA VACCINE TO THE IRISH PAEDIATRIC POPULATION

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Background Until recently, trivalent influenza vaccines (TIV) have contained one influenza B virus, recommended annually by the WHO vaccine selection committee. Quadrivalent Influenza Vaccines (QIV) add protection against a second B lineage; preventing the threat of a vaccine mismatched season, which often occurs in the Northern Hemisphere, leading to reduced vaccine effectiveness (VE) and increased influenza morbidity and mortality. Young children have one of the highest clinical burdens in Ireland, with the highest age-specific rate for influenza cases admitted to critical care units generally in children aged 0–4 years. Additionally, school-aged children are a major source of community transmission.

Aim To assess the benefit of a QIV in the Irish paediatric population.

Methods A literature review was conducted comparing QIV to TIV, focusing on VE and cost-effectiveness (CE). The VE of live-attenuated influenza vaccine (LAIV) compared to inactivated influenza vaccine (IIV) in children was also studied. The Cochrane database of systematic reviews, the Cochrane Central Register of Controlled Trials, PubMed, the Lancet, and publications from the European projects I-MOVE/I-MOVE+ and VENICE were searched for publications between 2009–2018.

Results Recent influenza seasons suggest a higher VE of QIV compared to TIV. Studies have shown that QIV is as effective as TIV for the strains included in both; however QIV has superior immunogenicity for the additional B strain when there is a mismatch season. These results are also reflected in pre-licensing studies of the immunogenicity of QIVs that are now approved.

LAIV has been recommended due to higher VE against influenza B strains and the ease and acceptability of the intranasal vaccination compared to the injectable IIV.

QIV are more expensive than TIV, however CE analyses indicate that QIV delivers substantial savings in terms of preventing direct healthcare costs through reductions in infection numbers, hospitalisations and deaths; resulting in quality-adjusted life years gained. There are also substantial societal benefits through indirect savings in productivity (preventing employee/caregiver absences). Rolling out QIV to children was the most cost-effective vaccination strategy in the UK (aged 2–11 years) and in European countries (4–16 years) partaking in the I-MOVE+ project, with the exception of Portugal.

Conclusion QIV would stabilise the VE across influenza seasons; eliminating the uncertainty of predicting the influenza B lineage, ultimately increasing public confidence in the vaccine, resulting in increased vaccine uptake. Broader protection in the paediatric population would directly reduce influenza transmission and indirectly protect vulnerable populations in the community.

P368 FREQUENCY OF DIARRHEA AND PNEUMONIA IN VACCINATED AND UNVACCINATED CHILDREN UNDER 5 YEARS OF AGE: A SINGLE CENTER STUDY

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Background Pneumonia and diarrhea remain the leading infectious causes of mortality and morbidity in children under 5 years of age. [1]According to the study carried out by WHO in 2017 the coverage of rotavirus is 23% while that of pneumococcal vaccine is 43% which accounts for serious health issues in children.[2] An estimated 1 in 40 infants experience a severe episode of rotavirus gastroenteritis annually in Pakistan.[3]

Objective The objective of this study was to determine the frequency of diarrhea and pneumonia in vaccinated and unvaccinated children less than 5 years of age: A single center study