Public Health England

Protecting and improving the nation's health

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Vaccine update

National Immunisation Network meeting 2018

Tuesday – Day One

As everyone took their seat it became obvious how popular the 4th National Immunisation Meeting was with few free seats in the room. Many missed the opening short film 'Our Immunisation Story' due to lively conversation but we returned to it on Day Two. Mary Ramsay extended a warm welcome to everyone and the first session began with Natasha Crowcroft presenting on the curious case of pertussis vaccine effectiveness in Ontario. Natasha explored why pertussis might be so well-controlled in Canada when a number of other countries (including the UK) had experienced disease resurgence. This talk highlighted the importance of study design with examples of different study methods that estimated vaccine effectiveness by age.

Andy Pollard then focussed primarily on meningococcal disease with a stark reminder of the horror of the disease – looking at the emergence of a single MenB clone with a high attack rate in New Zealand. This drove the development of a highly effective vaccine specific to the New Zealand clone.

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Andy took this into the context of the UK situation to explore the reasoning behind the offer of the newly licensed 4CMenB vaccine to infants only and further work being undertaken in Australia and the UK to help inform whether this vaccine has any impact on carriage. Excitingly he touched on work suggesting that MenB vaccination may have additional benefit in teenagers if early suggestions of protection against N. gonorrhoea are supported by further study and can be used in cost effectiveness analyses.

Vasee Moorthy introduced parasitology to the audience with a fascinating overview on global malaria vaccine research and development in the final session before coffee. Vasee explained the complexities around the development of an effective malaria vaccine (including amazing footage) which would target a disease that globally kills a child almost every minute. We now have a candidate vaccine that is moving to Phase IV observational studies with pilot implementation in three subnational, high burden settings in Africa. This is so important in the face of emerging drug and insecticide resistance.

Session two began with a double-act by Nick Andrews and David Goldblatt covering pneumococcal disease, epidemiology, modelling and schedule in only 45 minutes. Nick gave us a great overview of pneumococcal epidemiology and the impact that had already been seen with the introduction of the initial 7-valent and subsequent 13-valent vaccines. He outlined herd protection effects in non-vaccinated and PPV vaccinated individuals in the population and the increase in non-vaccine serotypes. He reminded us that there had already been a major impact on invasive pneumococcal disease and that non vaccine types of the pneumococcus were associated with less severe disease. We learnt from David Goldblatt that toddlers are the major spreaders of pneumococcal disease and he took us very eloquently through the important question of whether we can reduce the number of vaccine doses whilst maintaining good disease control.

We had a lively, good-natured debate before lunch between former (back in the old PHLS days) colleagues Mary Ramsay and Natasha Crowcroft on whether the UK immunisation schedule is the best. No need to tell you which side of the debate Mary was on with a spirited and entertaining defence of the UK schedule – she ended up with most of the room behind her!

After a good lunch we heard from David Mesher and Kevin Pollock about the tremendous impact of the HPV immunisation programmes in England and Scotland respectively with data from other parts of the world highlighted. There is one death every minute from cervical cancer worldwide with large socioeconomic inequalities in those affected and also in those dying from the disease.

It was easy to appreciate the importance of the high vaccine effectiveness reported on high grade disease. There was no increased risk following HPV vaccination for POTs, chronic fatigue syndrome or other neurological conditions identified through adverse event monitoring and linkage studies. These presentations sparked a lively debate on the equity of the HPV immunisation programme in girls. Professor Peter Sasieni completed the HPV session looking at the future of cervical screening. He provided clear insight into issues around herd immunity and when it might be safe to stop vaccinating and how we might identify a problem with waning efficacy.

Session four began with Kevin Brown giving an overview of shingles from the perspective of a virologist. We learnt that chickenpox (same virus as shingles) came from the word chikeen and literally meant 'no big deal' pox but as far as shingles was concerned this was clearly not the case. An inactivated shingles vaccine is in the pipeline and now licensed in Europe. References to the complexities of identifying whether a patient was eliglible under the shingles vaccination programme drew plenty of groans and laughs – fortunately this has recently been made less complicated. Cost-effectiveness ended the day with Mark Jit focussing on a comparison of the two shingles vaccines. The inactivated vaccine requires 2 doses and he looked at the long-term protection from each vaccine, how herpes zoster affects health related quality of life and the comparative cost effectiveness of the two vaccines. He even explained QALY in an understandable way! Delegates seemed to leave the meeting looking forward to the next day.

Day 2 of the NIN

Day 2 was marked by the highs of implementation research and a lack of pudding. But fortified by the frequent fruit courses and endless tea, we discovered everything from teenagers' opinions on vaccinations to the challenge of vaccinating Canada. The Merseyside rotavirus study was a good reminder of the disparity in uptake of immunisation. The high uptake of the vaccine (90% in 9 months) hid the socio-economic disparities, mirroring the experience with other vaccines. Despite the lower uptake in lower socioeconomic groups, a greater number of hospitalisations were averted, primarily because these groups bear a greater burden of disease.

The strong message from a survey of teenagers and their parents' opinions on vaccines was that teenagers are more discerning at where they get their vaccine messages from than we might think. They may certainly be able to navigate the digital media landscape better than adopters of the digital world. Most parents and teenagers trusted vaccines and considered getting vaccinated to be a usual activity., Parents who refused vaccinations for their children when younger (mostly MMR), accepted the vaccine when offered later on so, keep offering MMR and any other immunisation that may have been missed!

School immunisers, are you drowning in consent forms? Or not, as the case may be. We saw that implementing e-consent forms for flu vaccinations in school settings can result in a substantially reduced workload for school immunisation teams during flu season. The Hertfordshire Community NHS Trust team's trick was to keep the patient/parent at the centre of this. Do it to make the process easier for them, not just for us. Jo Ferries and Julie Yates from South West told us of their experiences with getting verbal consents for HPV from parents in the absence of written consent and assessing whether children could give consent themselves (Fraser-Gillick competence). Their results showed an increase in uptake, without an increase in workload.

The mid-season effectiveness data for flu was reported by Richard Pebody as being in excess of 50% which is encouraging.

The day ended with a reminder of why it's great to be British. Canada is four times as large as the UK. Some populations can be physically hard to reach and the speaker vividly described the depths of winter and patients being airlifted just to give birth. Their challenges stem largely from a decentralised PH system resulting in different schedules and different surveillance systems across the provinces. But this is offset by a largely compliant population and friendlier media. Both the UK and Canada have one thing in common – our reliance on our fundamental asset, our immunisers and all those who support them.

Congratulations to all those working so hard to ensure that 'our' people continue to be protected against serious infectious diseases. Good representation from all the PHE regions and the commitment of all our impressive guest speakers meant that this conference was the most successful ever. We look forward to meeting even more of our healthcare professionals on our immunisation stand and at the NIN conference next year!

With thanks to Helen Campbell (day 1) and Nalini Iyanger (day 2) for their reports on the day.

National Immunisation conference 2019

Dates: 21–22 May 2019
Place: London Venue TBC

Pertussis vaccination programme for pregnant women update: vaccine coverage in England, October to December 2017

This report presents pertussis vaccine coverage in pregnant women in England for the period October to December 2017.

Pertussis vaccine coverage in pregnant women averaged 73.6% across the quarter, 1.4% lower than coverage for the same period in 2016 but continuing at the higher levels seen since April 2016. Screening and Immunisation Teams should continue to update service providers (including maternities where vaccination is offered in this setting) on the current epidemiology of the disease, the recent changes to and effectiveness of the vaccination programme, and the need to maintain and improve coverage achieved thus far. The full report and associated data tables can be found at weblink 1.

Is your practice's prenatal pertussis vaccine coverage on ImmForm what you were expecting?

Data about pertussis-containing vaccines given in pregnancy for calculating vaccine coverage will only be extracted from your patient management system if you code the woman's delivery in her patient record. This may be achieved by entering delivery codes, or through using drop down menus. If the delivery is only recorded in the free text, as additional clinical details, or as a scanned document it will NOT be picked up and counted. Similarly, receipt of the pertussis vaccine needs to coded rather than entered as free text or as additional information – please also record prenatal pertussis vaccine given in other settings (such as maternity) in a woman's GP record otherwise it will not be counted.

If you have any questions about recording of delivery or vaccine for vaccine coverage purposes please contact pertussis@phe.gov.uk.

Preliminary vaccine coverage estimates for the meningococcal B (MenB) immunisation programme for England, update from January to March 2018

The latest Meningococcal B (MenB) vaccine coverage data for one and two doses of vaccine by six months, and 12 months and three doses by 18 months of age has been published to the end of March 2018.

- preliminary vaccine coverage estimates for the infant Meningococcal B immunisation, between January and March 2018, were 95.8% for one dose and 87.8% for two doses by six months of age
- children who were 12 months between January and March 2018 achieved 95.5% coverage for one dose and 92.5% for two doses
- children who reached 18 months of age between January and March 2018 achieved 95.3% coverage for one dose, 92.9% for two doses and 86.7% for the booster dose

Comparison with quarterly MenB vaccine coverage data collected through the routine COVER programme shows that estimates are closely aligned and therefore this is the last ImmForm provisional MenB coverage data report to be published. However, MenB coverage estimates will still be available on ImmForm for local performance management by NHS England teams. The full report and associated data tables can be found at weblink 2.

Vaccine Supply

Reminder – Purified Protein Derivative PPD 10TU ImmForm ordering to close in the near future

Purified Protein Derivative (PPD) 10TU/0.1ml for Mantoux testing will soon no longer be available to order through ImmForm as incoming supply has already come to an end. Remaining stock has an expiry date of 30 June 2018. Please order now if you wish to use this stock during May and June 2018.

This will not impact on routine Mantoux testing and PPD 2TU/0.1ml will continue to be available to order through ImmForm.

In the UK, the standard concentration of Purified Protein Derivative (PPD) 2TU/0.1ml is used for routine Mantoux testing to identify latent TB infection among contacts of active TB cases, migrants and in individuals prior to immunosuppressive therapy. The higher concentration of 10 TU/0.1 ml is only used in rare circumstances, for example where the first Mantoux test (PPD 2TU) is negative (less than 5mm in diameter) and a retest is considered appropriate for clinical purposes e.g. in immunocompromised patients/contacts (Green Book page 404).

PHE is reviewing the evidence for the use of PPD 10TU and plans to issue further information on possible appropriate alternatives.

Reminder about MMR vaccine ordering restriction

There are currently 2 vaccines available to order for the MMR programme, M-M-RvaxPro® and Priorix®. Orders for Priorix® continue to be capped at 6 packs per order per week for accounts in England and Wales. Controls are also in place for Scottish customers. This is needed to rebalance central supplies.

The alternative MMR vaccine, M-M-RvaxPro®, remains available to order without restriction.

If you specifically require additional Priorix® stock, for example because you serve communities that do not accept vaccines that contain porcine gelatine then please contact the ImmForm Helpdesk for assistance at helpdesk@immform.org.uk or 0844 376 0040.

Vaccine supply for the non routine programme

HEPATITIS A VACCINE

Adult

- **GSK:** Supplies of Havrix PFS singles, PFS packs of 10 and vials in singles are available. Please note, there may not be sufficient stock in each presentation to accommodate demand, therefore you may not be able to access supply of some presentations
- **Sanofi Pasteur:** Limited supplies of Avaxim are available. It is likely that there will be order restrictions in place.
- **MSD:** VAQTA Adult is currently available

Paediatric

- **GSK:** Havrix Paediatric singles and packs of 10 are currently available
- **MSD:** VAQTA Paediatric is currently available

HEPATITIS B VACCINE

Hepatitis B monovalent vaccines are currently under supply management. While priority groups 1-3 (in the PHE temporary recommendations) will continue to have access to Hepatitis B monovalent vaccines, availability for priority group 4 patients has commenced in a phased approach.

Adult

- **GSK:** Supplies of Engerix B PFS singles and packs of 10 are available. Please note there may not be sufficient stock in each presentation to accommodate demand, therefore you may not be able to access supply of some presentations
- **GSK:** Supplies of Engerix B vials singles and packs of 10 are available. Please note there may not be sufficient stock in each presentation to accommodate demand, therefore you may not be able to access supply of some presentations
- **GSK:** Fendrix is available
- **MSD:** Limited supplies of HBVAXPRO 10µg are available. Supplies are expected to be restricted until further notice
- **MSD:** Limited supplies of HBVAXPRO 40µg are available. Supplies are expected to be restricted until further notice

Paediatric

- **GSK:** Engerix B Paediatric singles are available
- **MSD:** Limited supplies of HBVAXPRO 5µg are available. Supplies are expected to be restricted until further notice

COMBINED HEPATITIS A & B VACCINE

- **GSK:** Twinrix Adult and Paediatric presentations are available
- **GSK:** Ambirix is available

COMBINED HEPATITIS A & TYPHOID VACCINE

- **Sanofi Pasteur:** Limited supplies of Viatim are available. It is likely that there will be order restrictions in place.

TYPHOID VACCINE

- **Sanofi Pasteur:** Typhim is available to order without restrictions.
- **PaxVax:** Vivotif is available

RABIES VACCINE

- **GSK:** Rabipur is currently unavailable until late May
- **Sanofi Pasteur:** Rabies BP is out of stock. For more information, please call Sanofi Pasteur Customer services.

PPV (Pneumococcal Polysaccharide Vaccine)

- **MSD:** limited supply is currently available with next replenishment due late July/ early August

VARICELLA ZOSTER VACCINE

- **GSK:** Varilrix is currently available
- **MSD:** VARIVAX is currently available.
- **MSD:** ZOSTAVAX is currently available.

DIPHTHERIA, TETANUS AND POLIOMYELITIS (inactivated) VACCINE

- **Sanofi Pasteur:** Revaxis is available to order without restrictions

MMR

- **MSD:** MMR stocks are currently available for the private market and for the National Immunisation Programme.

HUMAN PAPILLOMAVIRUS VACCINE

- **MSD:** Stocks of GARDASIL are available for private market sales and for the National Immunisation Programme.

MENINGITIS ACWY VACCINE

- **GSK:** Menveo is currently unavailable until late 2018
- **Pfizer:** Nimenrix is currently available for private sales. There is no impact on the National Immunisation Programme

Weblinks

weblink 1 https://www.gov.uk/government/publications/pertussis-immunisation-in-pregnancy-vaccine-coverage-estimates-in-england-october-2013-to-march-2014

weblink 2 https://www.gov.uk/government/publications/meningococcal-b-immunisation-programme-vaccine-coverage-estimates

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