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This Webinar will be recorded. Recording will begin at the start of the webinar and end before the question and answer section. No delegate information will be visible on the recording.

REC

# Primary care immunisation update webinar series

## April 2023: Vaccination of individuals with underlying medical conditions

Presenter: Pauline MacDonald

Welcome to the webinar. This webinar will commence at the scheduled time.

Before then please take a moment to read through the tips below



- All delegate's lines are muted throughout the presentation
- If at other times you are in a noisy environment please mute your line by pressing the mute button on your screen
- If you would like to ask a question please use the chat function
- There will be an opportunity for questions at the end – you can unmute to ask your question
- This webinar will be recorded and made available on the national immunisation webpages. (<https://www.gov.uk/government/publications/immunisation-update-webinars-for-primary-care-immunisers>)
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# Webinar Essentials

## Today's webinar

- Trainer is Pauline MacDonald
- 30 minutes Pauline talking with slides
- 15 minutes for questions and answers from delegates

## Access to slides

- Copy of slides will be emailed to delegates
- Underlined text on the slides are hyperlinks – click to go straight to the link

## Following the webinar

- You will be emailed a link to an electronic evaluation (Select Survey)
- Your feedback is essential to support the development of the webinar series
- A certificate will be emailed once the evaluation is completed



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# Primary care immunisation update webinar series

## April 2023: Vaccination of individuals with underlying medical conditions

Presenter: Pauline MacDonald

# Learning outcomes

- Describe which additional vaccines are recommended for individuals with underlying medical conditions
- Identify challenges for uptake in these groups
- Utilise UKHSA and other resources to support immunisers and patients

# Session outline

- Selective immunisation programmes for underlying medical conditions
- Key resources
- Immunosuppression
- Asplenia
- Complement disorders
- Pneumococcal vaccine recommendations
- Pregnant women
- Individuals at risk of disease due to lifestyle factors
- COVID-19 context
- Ordering and payments for administration

# Selective immunisation programmes

- Some medical conditions increase the risk of severity and/or complications from infectious diseases
- Immunisation of children and adults with such conditions is important
  - Many people may not be aware they are advised to have extra vaccines
- Some individuals may require additional vaccines/doses of vaccine
- Vaccine recommendations are tailored to the risks associated with underlying medical condition

Details in:

[Green Book](#) Chapter 7 - Immunisation of individual with underlying medical conditions (Jan 2020)

Individual disease chapters in the Green Book and on page two of the [routine immunisation schedule](#)  
(updated 21<sup>st</sup> Feb 2022)

## Additional vaccines for individuals with underlying medical conditions

Medical condition	Diseases protected against	Vaccines required <sup>1</sup>
Asplenia or splenic dysfunction (including due to sickle cell and coeliac disease)	Meningococcal groups A, B, C, W and Y Pneumococcal Influenza	MenACWY MenB PCV13 (up to ten years of age) <sup>2</sup> PPV (from two years of age) Annual flu vaccine
Cochlear implants	Pneumococcal	PCV13 (up to ten years of age) <sup>2</sup> PPV (from two years of age)
Chronic respiratory and heart conditions (such as severe asthma, chronic pulmonary disease, and heart failure)	Pneumococcal Influenza	PCV13 (up to ten years of age) <sup>2</sup> PPV (from two years of age) Annual flu vaccine
Chronic neurological conditions (such as Parkinson's or motor neurone disease, or learning disability)	Pneumococcal Influenza	PCV13 (up to ten years of age) <sup>2</sup> PPV (from two years of age) Annual flu vaccine
Diabetes	Pneumococcal Influenza	PCV13 (up to ten years of age) <sup>2</sup> PPV (from two years of age) Annual flu vaccine
Chronic kidney disease (CKD) (including haemodialysis)	Pneumococcal (stage 4 and 5 CKD) Influenza (stage 3, 4 and 5 CKD) Hepatitis B (stage 4 and 5 CKD)	PCV13 (up to ten years of age) <sup>2</sup> PPV (from two years of age) Annual flu vaccine Hepatitis B
Chronic liver conditions	Pneumococcal Influenza Hepatitis A Hepatitis B	PCV13 (up to ten years of age) <sup>2</sup> PPV (from two years of age) Annual flu vaccine Hepatitis A Hepatitis B
Haemophilia	Hepatitis A Hepatitis B	Hepatitis A Hepatitis B
Immunosuppression due to disease or treatment <sup>4</sup>	Pneumococcal Influenza	PCV13 (up to ten years of age) <sup>2,3</sup> PPV (from two years of age) Annual flu vaccine
Complement disorders (including those receiving complement inhibitor therapy)	Meningococcal groups A, B, C, W and Y Pneumococcal Influenza	MenACWY MenB PCV13 (up to ten years of age) <sup>2</sup> PPV (from two years of age) Annual flu vaccine

1. Check relevant chapter of the Green Book for specific schedule: [www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book](http://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book)

2. If aged two years to under ten years of age and unimmunised or partially immunised against pneumococcal infection, give one PCV13 dose.

3. To any age in severely immunocompromised.

4. Consider annual influenza vaccination for household members and those who care for people with these conditions.

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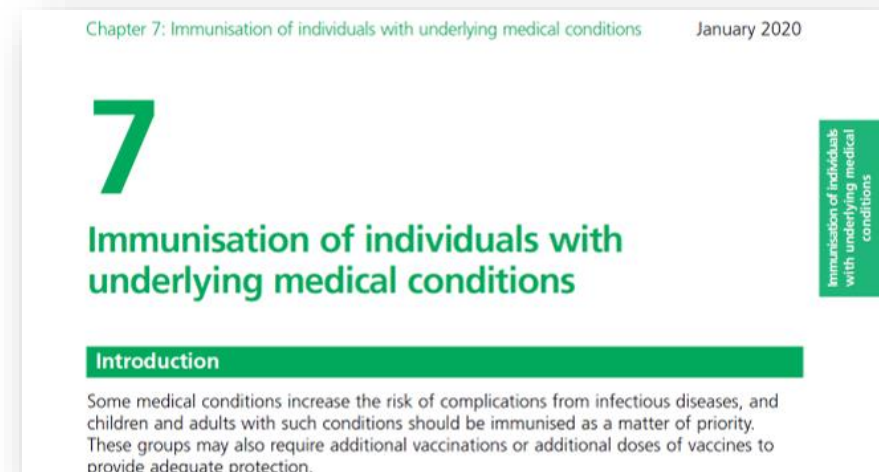
[Feb 2022 routine immunisation schedule](#) (updated 21 Feb 2022)



# Key resources

- Other additional vaccines depending on medical condition –
  - hepatitis A vaccine (see [Chapter 17](#))
  - hepatitis B vaccine (see [Chapter 18](#))
  - influenza vaccine (see [Chapter 19](#))
  - meningococcal vaccine (see [Chapter 22](#))
  - pneumococcal vaccine (see [Chapter 25](#))
- Useful summaries with hyperlinks to each chapter and practical schedule in [Chapter 7](#)

- Immunisation for HIV adults or children advice is available
  - <https://www.bhiva.org/vaccination-guidelines>
  - <https://www.chiva.org.uk/infoprofessionals/guidelines/immunisation/>



# Immunosuppression

- Immunosuppression due to disease or treatment
  - See Chapter 6 Green Book – Contraindications and special Considerations
    - <https://www.gov.uk/government/publications/contraindications-and-special-considerations-the-green-book-chapter-6>
- Such individuals are more susceptible to infection and disease course can be more severe
- **Routine vaccines:**
- Administer unless contraindicated
  - Live vaccines are usually contraindicated - see vaccine specific guidance
- Individuals with immunosuppression may respond less well to vaccines

# Re-immunisation – post treatment

- Some patients may need to be re-immunised when no longer immunosuppressed.
- Seek specialist advice and guidance following cessation of immunosuppressive treatment
- Post Bone Marrow or stem cell transplant immunisation schedules – usually produced by each specialist unit
  - Should be an individual schedule issued for each patient – if not request one from the Consultant
- No UK National consensus document on such a schedule
- Some examples – **just for reference:**
  - <https://www.england.nhs.uk/mids-east/wp-content/uploads/sites/7/2018/04/immunisation-schedule-in-children-following-haematopoietic-stem-cell-transplantation.pdf>
  - [https://www.cclg.org.uk/write/MediaUploads/Member%20area/Treatment%20guidelines/Vaccination\\_recommendations\\_2016.pdf](https://www.cclg.org.uk/write/MediaUploads/Member%20area/Treatment%20guidelines/Vaccination_recommendations_2016.pdf)
  - <https://immunisationhandbook.health.gov.au/resources/handbook-tables/table-recommendations-for-revaccination-after-haematopoietic-stem-cell>

# Timing of vaccines - immunosuppression

- Optimal timing for the indicated vaccines should be based on a clinical judgement around:
  - the relative need for rapid protection
  - the likely immune response
- General principles:
- Aim to immunise/boost prior to immunosuppression or defer until immunity improves
- Non-live vaccines should ideally be administered at least two weeks before commencement of immunosuppressive treatment
  - If not possible give vaccines and consider re-immunisation when recovered
- For live vaccines check specific guidance for each vaccine in the relevant chapter of the Green Book

# Household and close contacts of immunosuppressed persons

- May vaccinate them with the aim to reduce the risk of vulnerable individuals being exposed to vaccine preventable diseases (“cocooning” strategy)
- Ensure routine vaccines up to date
- Annual influenza vaccine
  - Children who are close contacts of **very severely immunocompromised** patients (e.g. bone marrow transplant patients requiring isolation) should not be given LAIV (if in contact with such a person) but receive the inactivated vaccine instead
- If susceptible to measles - MMR vaccine
- If susceptible to chickenpox – varicella vaccine

# Asplenia (absent or dysfunctional spleen)

- **Includes:**

- Asplenics, hyposplenism as seen in sickle cell disease and other haemoglobinopathies, some persons with coeliac disease (~30% of adults)

- **Problem:**

- Increased risk of severe infections particularly from encapsulated bacteria

- **High risk of infections caused by:**

- *Pneumococcus*
- *Neisseria meningitidis*

# Asplenia – indicated vaccines

- **All patients with asplenia, dysfunctional spleen or potential to develop asplenia**  
(includes all persons with coeliac disease)
  - Pneumococcal vaccine - 5 yearly booster of PPV23
  - Influenza vaccine (due to risk of secondary infections)
- **Patients with asplenia and dysfunctional spleens, only for patients with coeliac disease who are known to have splenic dysfunction (clinical decision)**
  - Meningococcal ACWY
  - Meningococcal B
- [Chapter 7, Green Book](#) - practical vaccine schedule for these patients provided on page 6

# Complement (a component of immune system) disorders

- **Includes:**

- Individuals with complement disorders and individuals receiving complement inhibitor therapy (Eculizumab (Soliris®)) - used to treat auto-immune conditions

- **Problem:**

- Complement are multiple distinct plasma proteins that enhance the antibacterial activity of antibodies and other important immune responses to infection
- Lack of complement increases susceptibility to infection, especially with encapsulated bacteria - particularly *N. meningitidis*

- **Indicated vaccines:**

- MenACWY and MenB vaccine (for individuals receiving Soliris® - ideally at least two weeks prior to commencement of therapy)
- Annual influenza vaccine
- Pneumococcal vaccine – only for patients with complement disorders (not on those on Solaris for auto-immune conditions) (Page 2 [Chapter 7 Green Book](#))



# Pneumococcal vaccine guidance

Two vaccines available – PCV13 and PPV23 – **complicated recommendations**

- Guidance on pneumococcal vaccine for Clinical risk groups is detailed in Table 25.3 of the Green Book

[Pneumococcal chapter 25](#)

- **Infants and children under 2 years** with asplenia, splenic dysfunction, complement disorder or severe immunocompromise:
  - Additional dose of PCV13 as an infant (2 doses over 6 weeks of age with an 8 week gap), then an extra dose at least 8 weeks after the 1 year old dose (2 + 2 schedule)
  - PPV23 when over 2 years of age
- **Over 10 year olds – only Severely Immunocompromised**
  - Extra dose of PCV13 and one dose of PPV23 (check Green book for timings and precautions)
- **Other Clinical Risk Group**
  - PCV13 as per routine schedule to infants/children including up to 10 years old and PPV23 recommended from age 2 years

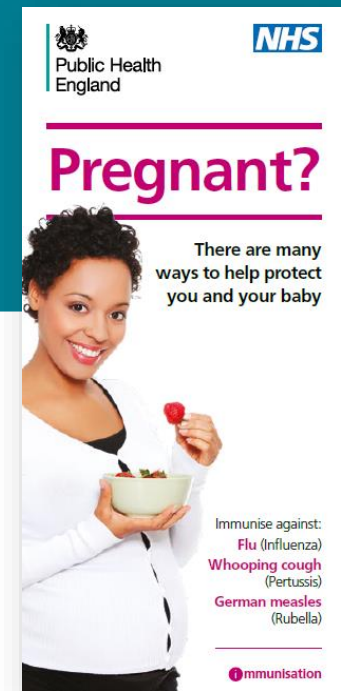
# Vaccine preventable diseases and pregnancy

## Pre-pregnancy:

- All women of childbearing age should have received 2 MMR vaccines

## During pregnancy active vaccination programmes against:

- Influenza
- COVID-19 vaccine
- Pertussis (next slide)



<https://www.gov.uk/government/publications/pregnancy-how-to-help-protect-you-and-your-baby>



## Influenza and COVID vaccine for pregnant women:

- reduces adverse maternal outcomes attributed to influenza and COVID infection
- reduces risk of prematurity and low birth weight
- provides passive immunity to infant
- can be safely administered at any stage of pregnancy

<https://www.gov.uk/government/publications/covid-19-vaccination-women-of-childbearing-age-currently-pregnant-planning-a-pregnancy-or-breastfeeding>

# Pertussis vaccination in pregnancy programme



- Aims to protect infants by boosting maternal immunity to pertussis during pregnancy so that antibodies can pass to the unborn infant
- Highly effective against pertussis infection and death in infants
- Rates of pertussis in non infant population remain elevated
- National uptake Jul to Sep 2022~ 60.2% - 4 out 10 infants unprotected

## Practice points:

- vaccine is recommended to be administered between 16 - 32 weeks gestation
- usually scheduled on or after foetal anomaly scan (about 20 weeks)
- can be given after 32 weeks up until labour begins
- if mum missed vaccine during pregnancy offer it in the 2 months following birth
  - Before baby gets its own pertussis containing vaccine
- important to maintain robust immunisation offer for pregnant women

# Resources for supporting pregnancy programmes



## Pertussis (whooping cough) vaccination programme for pregnant women

Information for healthcare practitioners

<https://www.gov.uk/government/publications/vaccination-against-pertussis-whooping-cough-for-pregnant-women>

### Includes:

- Aims of programme
- Background to programme
- Supporting evidence
- Scenarios encountered in practice settings
- Managing clinical errors



<https://www.gov.uk/government/publications/pregnancy-how-to-help-protect-you-and-your-baby>



<https://www.gov.uk/government/publications/covid-19-vaccination-women-of-childbearing-age-currently-pregnant-planning-a-pregnancy-or-breastfeeding>

# Vaccine Preventable Disease risk due to lifestyle factors

## **Other selective immunisation programmes exist for individuals who have increased risks of disease due to exposure through lifestyle factors including:**

- For all patients - check routine immunisation status – bring up to date if not fully immunised for their age
- For those at high risk via sexual exposure – MSM, sex workers
  - Hep A and B, HPV
- People who inject drugs (PWID)
  - Check tetanus immunisation, Hep A and B
- Prisoners and those in detention
  - Check tetanus immunisation, Hep A and B, Flu
- International travellers
  - Dependent on destinations
- Occupational risks – such as healthcare workers – not a primary care responsibility ([Link to BMA guidance](#) – occupational, travel and HepB)

# COVID-19 vaccination programme



- COVID-19 vaccination eligibility continues to evolve
- All of the population aged from 5 years upwards have gradually become eligible for vaccination over the past 2 years  
(<https://www.gov.uk/government/publications/covid-19-the-green-book-chapter-14a>)
  - The biggest risk factor for COVID disease severity is increasing age
  - Different recommendations by age group in terms of number of doses and timing
- Currently Spring boosters for the most vulnerable – over 75s, residents in care homes for older people and the immunocompromised.
  - <https://www.gov.uk/government/publications/covid-19-vaccination-spring-booster-resources>
  - <https://www.gov.uk/government/publications/covid-19-vaccination-programme-guidance-for-healthcare-practitioners>

# Ordering and payment



Vaccines are provided at NHS expense to patients with underlying medical conditions and for some lifestyle risk factors



Ordering: vaccines for individuals with underlying medical conditions are **not all** centrally procured and some need to be ordered from the manufacturer

Can use ImmForm vaccines: Men B, PPV23, BCG and Boostrix-IPV  
Need to buy in: Flu, PCV13, Men ACWY, Hep A, Hep B and Shingles (at risk groups)



Centrally procured vaccines **can be used** to catch-up incomplete routine immunisations or selective immunisation (like Pertussis for pregnant women)

The cost of locally purchased vaccines for individuals with underlying medical conditions can be re-claimed on FP34D/PD or FP10

Practices must not claim for any centrally procured vaccines used



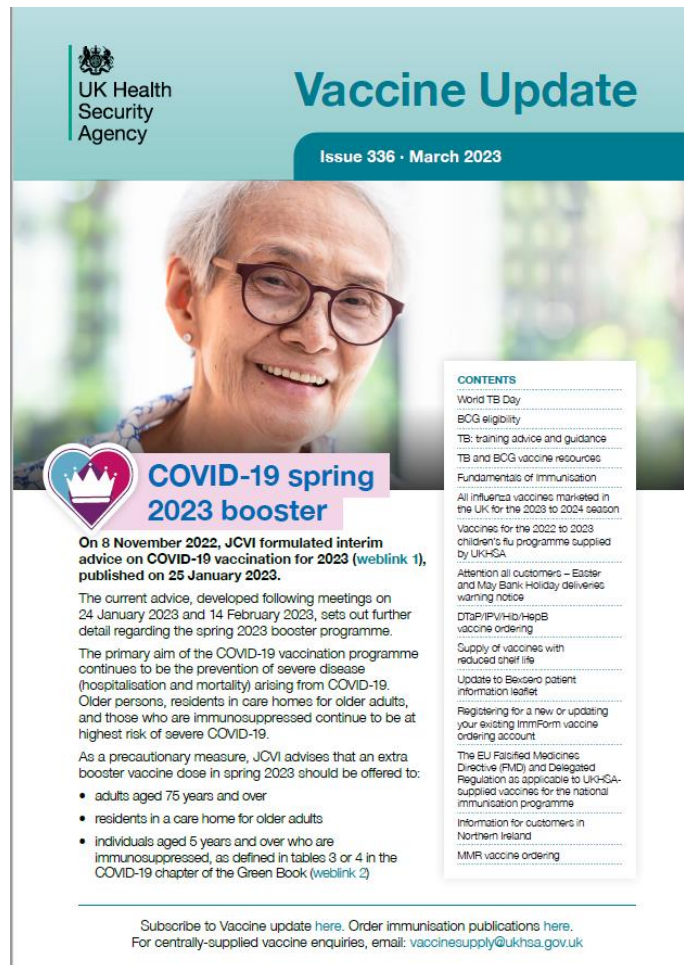
# Keeping up to date

- Have access to and be familiar with:

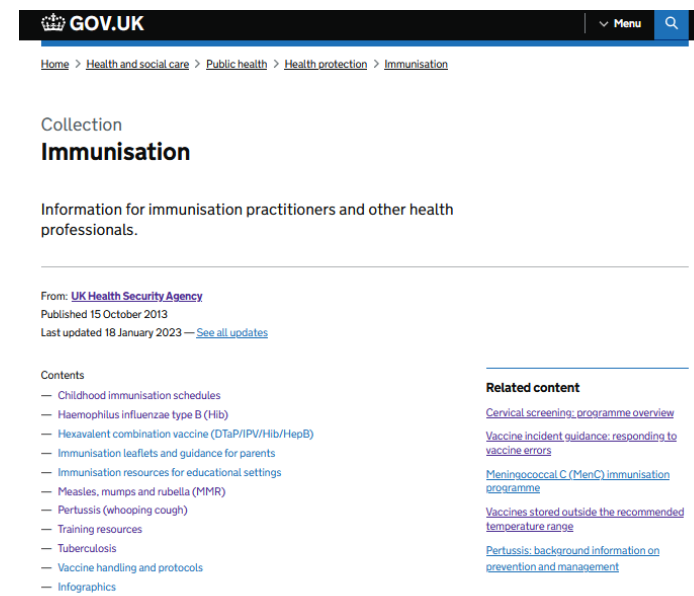
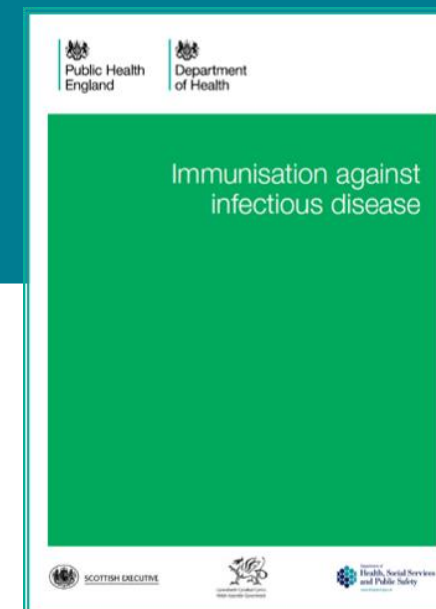
- [Online Green Book](#)

- [Vaccine update](#)

- [UKHSA immunisation webpages](#)



The cover of the Vaccine Update newsletter, Issue 336, dated March 2023. It features the UK Health Security Agency logo and a photograph of an elderly woman smiling. The main headline is 'COVID-19 spring 2023 booster'. A sub-headline states: 'On 8 November 2022, JCVI formulated interim advice on COVID-19 vaccination for 2023 (weblink 1), published on 25 January 2023.' The text continues: 'The current advice, developed following meetings on 24 January 2023 and 14 February 2023, sets out further detail regarding the spring 2023 booster programme. The primary aim of the COVID-19 vaccination programme continues to be the prevention of severe disease (hospitalisation and mortality) arising from COVID-19. Older persons, residents in care homes for older adults, and those who are immunosuppressed continue to be at highest risk of severe COVID-19. As a precautionary measure, JCVI advises that an extra booster vaccine dose in spring 2023 should be offered to: adults aged 75 years and over; residents in a care home for older adults; individuals aged 5 years and over who are immunosuppressed, as defined in tables 3 or 4 in the COVID-19 chapter of the Green Book (weblink 2)'. A table of contents is also visible on the right side of the cover.



A screenshot of the UKHSA Immunisation webpage. The header shows the GOV.UK logo and navigation links. The main heading is 'Immunisation'. Below it, there is a section for 'Collection' and 'Immunisation'. The text states: 'Information for immunisation practitioners and other health professionals.' The page is dated 'Published 15 October 2013' and 'Last updated 18 January 2023'. A 'Contents' section lists various topics, and a 'Related content' section provides links to related resources.



# Immunisation training and updates

- The National Immunisation training Standards recommend all immunisers have core foundation education in immunisation and annual updates so they can keep up to date with the changes to the vaccine programmes.
- There is no specified criteria for updates, immunisers will need to determine what education they need in order to safely deliver vaccine programmes.
- The Immunisation competency tool can be a useful way to identify learning needs.
- The e-learning from e-lfh provide useful updates; see [Immunisation e-learning programme](#) for the routine programme and specific e-learning resources for [influenza](#) and [COVID-19](#) vaccines.
- This webinar series provides additional bite sized sessions to support specific areas in immunisation delivery.
- The [RCN immunisation pages](#) provide some useful resources to help people keep up to date.
- [Immunisation training standards for healthcare practitioners](#) (2018)
- [Immunisation training of healthcare support workers: national minimum standards and core curriculum](#) (2015)
- RCN [Immunisation Knowledge and Skills Competence Assessment Tool](#) (2022)

# Questions

# After the webinar, please remember to:

- Complete the evaluation (link being emailed to you today from Eventbrite)
- Print/save the certificate (emailed to you once the survey is complete)
- Use the prompts to capture your reflections on the certificate
- Book for future webinars

If you need to contact the webinar team, please email: [ImmsTraining@phe.gov.uk](mailto:ImmsTraining@phe.gov.uk)

## Primary care immunisation update webinar series 2023

February to July

Vaccine ordering, storage & handling

Incomplete immunisation schedules

Vaccination of individuals with underlying medical conditions

Vaccine administration – best practice

Child and adolescent immunisation update

Addressing concerns around vaccines – supporting acceptance

September to December

Influenza and Covid-19

Shingles and pneumococcal (adult) vaccines

Adverse events following immunisation

Current Issues vaccine schedule changes. Session to be confirmed

Primary Care Immunisation Update Webinar Series – April 2023			
	Date	Start time	Link to register
April 2023		Vaccination of individuals with underlying medical conditions	
<b>1</b>	05/04/2023	14:00	<a href="https://April23-Webinar1-VaccinationWithUnderlyingConditions.eventbrite.co.uk">https://April23-Webinar1-VaccinationWithUnderlyingConditions.eventbrite.co.uk</a>
<b>2</b>	26/04/2023	09:30	<a href="https://April23-webinar2-vaccinationwithunderlyingmedicalconditions.eventbrite.co.uk">https://April23-webinar2-vaccinationwithunderlyingmedicalconditions.eventbrite.co.uk</a>
<b>3</b>	26/04/2023	14:00	<a href="https://April23-Webinar3-VaccinationWithUnderlyingConditions.eventbrite.co.uk">https://April23-Webinar3-VaccinationWithUnderlyingConditions.eventbrite.co.uk</a>