



Promoting Effective Immunisation Practice

Guide for Students, Mentors and Their Employers

Updated 2011





Promoting Effective Immunisation Practice

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Contents





Introduction

Welcome to the *Promoting Effective Immunisation Practice programme guide*. This guide is designed to support students and their mentors/assessors through the NHS Education for Scotland programme for all those involved in childhood immunisation.

In 2003, as a result of the lowest ever recorded uptake figures for MMR, Health Protection Scotland (HPS), then the Scottish Centre for Infection and Environmental Health, and the Scottish Executive Health Department met with representatives from the 15 NHS Boards to discuss what might be done to improve the situation. As well as discussing the issues surrounding MMR in particular, the seminar also examined the following topics:

- Addressing parental concerns more effectively
- Addressing professional concerns more effectively
- Providing a timely response to adverse publicity
- Communicating better with professionals and the public

One national priority identified as a means of addressing the above was the development of an educational resource on immunisation for health professionals. As a result of collaboration between HPS and NHS Education for Scotland (NES), this resource was launched in September 2006. Recently public concern regarding MMR would appear to have lessened and MMR immunisation uptake has improved. However, it is still vital that all healthcare professionals who have a remit for

Who is the programme for?

immunisation are appropriately trained. This resource is aimed at all healthcare professionals involved in the childhood immunisation programme, primarily public health nurses (health visitors and school nurses), general practitioners and practice nurses. However, anyone whose remit includes immunisation should be able to access formal training, and this includes Consultants in Public Health Medicine, public health practitioners, paediatricians, pharmacists, midwives and occupational health nurses and physicians.

Whether you give advice about immunisation, administer vaccines, or do both, this course is for you. Immunisation is one of the most successful public health measures, often described as second only to the provision of clean drinking water in its impact. However, as the incidence of infectious disease declines, and public confidence in vaccines wavers, it is essential for all those involved in immunisation to be confident,



Background

There is evidence that health professionals throughout the UK have not in the past been adequately supported in preparing for their role as immunisers. In June 2003, the Health Protection Agency (HPA) carried out a survey of immunisation training offered in English Primary Care Trusts which highlighted inconsistencies in the provision of education, and a similar situation was known to exist across Scotland. Subsequent to this, the HPA published two documents in 2005; *National Minimum Standards for Immunisation Training*¹, and *Core Curriculum for Immunisation Training*². This programme utilises both of these resources, and HPS and NES are greatly indebted to the HPA for their permission to do so.

The requirements of clinical governance and accountability, audit, and the increasing emphasis upon healthcare workers to demonstrate specific competencies can only be addressed by the implementation of an appropriate educational programme.

The objectives of the programme are thus to:

1. Enable healthcare professionals to confidently, competently and effectively promote and administer vaccinations, and
2. Ensure that the recommendations of the Joint Committee on Vaccination and Immunisation (JCVI), as detailed in *Immunisation against Infectious Disease*³ – the “Green Book”, are implemented at local level by all those involved in immunisation.

Core knowledge

All healthcare professionals involved in immunisation should be able to demonstrate competence, current evidence-based knowledge and understanding of the areas listed below:

1. The aims of immunisation: national policy and schedules
2. The immune system and how vaccines work
3. Vaccine preventable diseases
4. The different types of vaccines used and their composition
5. Current issues and controversies regarding immunisation
6. Communicating with patients and parents
7. Legal aspects of vaccination
8. Storage and handling of vaccines
9. Correct administration of vaccines
10. Anaphylaxis and other adverse events
11. Documentation, record keeping and reporting
12. Strategies for improving immunisation rates

Employers

Employers are responsible for ensuring that their staff have the opportunities to develop the competencies that are necessary for the roles they are expected to fulfil. NHS Boards may wish to consider this programme’s eventual inclusion as a requirement for those individuals who administer vaccines as specified in a Patient Group Direction (PGD).

Newly appointed staff

Provision should be made for staff newly appointed to a position in which they will give advice about immunisation and/or administer vaccines to undertake this programme prior to the commencement of such duties.

Existing staff

It should be recognised that many healthcare professionals have not been resourced to fully develop their skills in immunisation, and therefore even those who have been involved in immunisation for many years will benefit outwith the remit of this programme and should be addressed from participation in the programme. It is important that they are given every encouragement to benefit from enhancing their competence.

The NHS Knowledge and Skills Framework (The NHS KSF)

The NHS Knowledge and Skills Framework provides a comprehensive framework in which can be included review and development for all

[continues on the next page]

Employers

the staff groups involved in immunisation other than doctors. For example, completion of the programme might be used by a newly qualified Public Health Nurse as evidence towards the achievement of the dimensions and levels required for progress through the Foundation Gateway.

Please find below examples of dimensions and levels that may be helpful:

- C1 Communication Level 3
- C2 Personal and people development Level 2
- C4 Service Improvement Level 2
- C5 Quality Level 2
- HWB1 Promotion of health and wellbeing and prevention of adverse effects on health and wellbeing Level 2
- HWB2 Assessment and care planning to meet health and wellbeing needs Level 2
- HWB3 Protection of health and wellbeing Level 3
- HWB4 Enablement to address health and wellbeing needs Level 3
- IK1 Information Processing Level 1
- IK3 Knowledge and information resources Level 1

Updating

Policy and recommendations in immunisation change frequently, and it is essential that provision is made locally for a regular programme of updates. The *National Minimum Standards for Immunisation Training* recommend that as a minimum, yearly updates should be provided for all those involved in immunisation. This would include the following:

- Current issues in vaccination
- Recent epidemiology of vaccine preventable diseases
- Any changes to the national immunisation schedule
- Anaphylaxis recognition and management
- Review of current practice and identification of areas for improvement
- Q&A session for commonly encountered problems in practice.

What are the options for learning?

This programme has been developed to be delivered via elearning, and access to a computer and the internet is essential. You may wish to print out material for future reference. It is not necessary to be online all the time, but there are links to other websites throughout the programme, and you need to arrange to access these. There are also links within the programme, such that if a topic is referred to in one Unit, you can quickly go to the Unit in which further detail is given, if you need to revise.

You also need an Athens username and password to access the journal papers in NHS Scotland's Knowledge Network. to which there are links.

There are many references to the Green Book throughout the programme. You should ensure that you are able to easily access the electronic version on the Department of Health's website, as existing hard copies are not up to date.

See: <http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/GreenBook/fs/en>



Brief overview of the units

Listed below are the learning outcomes of each Unit:

1. The aims of immunisation: national policy and schedules.

To be able to explain the aims of immunisation, and describe national policy and schedules. A brief history of vaccine development, followed by a discussion of its aims in relation to disease. Current methods of surveillance.

2. The immune system and how vaccines work

To be able to describe in outline the immune system and how vaccines work in individuals and populations. This is quite an intensive Unit, but worth spending your time on in order to fully appreciate how the body responds to infection and vaccines.

3. Vaccine preventable diseases

To describe and recognise the main features of vaccine preventable diseases and the nature and frequency of their acute and long term complications. In this Unit you are directed to resources about the specific diseases which vaccines can prevent. You will also learn about the beneficial impact of vaccination.

4. The different types of vaccines used and their composition

To have knowledge and understanding of the vaccines used in the national immunisation programme. This Unit describes pre-licensing evaluation of a vaccine, the different types (live and non-live) that are available, and asks you to make notes about contraindications.

5. Current issues and controversies regarding immunisation

To know about current issues and controversies regarding immunisation. This Unit looks at the evidence concerning controversial topics such as pertussis, MMR and thiomersal, and demonstrates how important it is to objectively review the scientific literature.

6. Communicating with patients and parents

To communicate effectively with patients and parents about vaccination. The factors that influence parents' decision making, and ways of addressing their concerns.

7. Legal aspects of vaccination

To understand the legal aspects of vaccination. The legal aspects of consent, prescribing and the use of Patient Group Directions, and confidentiality.

8. Storage and handling of vaccines

To follow correct procedures for the storage and handling of vaccines. Details the requirements of ensuring the cold chain is maintained, and includes an audit tool for you to use in the workplace.

9. Correct administration of vaccines

To reconstitute and administer vaccines correctly. Practical advice concerning the administration of vaccines, explaining why it is necessary to use the correct size of needle, and the optimum site and route.

10. Anaphylaxis and other adverse events

To be able to manage anaphylaxis and other adverse events correctly. Adverse events in general, and the systems in place for their reporting are included in this Unit. Detailed advice regarding the recognition and management of anaphylaxis.

11. Documentation, record keeping and reporting

To document vaccinations given correctly in all relevant records and communicate information to the appropriate authorities. Details of what needs to be recorded and where, and why.

12. Strategies for improving immunisation rates

To be able to identify and implement strategies for improving immunisation. Review of the factors that have been identified as influencing vaccine uptake, and suggestions for you to consider in your workplace.

Specific learning objectives are found at the beginning of each Unit.

How long will it take?

Students who piloted the programme took an average of 21 hours to complete all the Units. If you are relatively new to immunisation it may take up to 30 hours. The length of time it takes will also be influenced by your own personal interest in certain aspects that you may wish to explore in greater depth than required by the programme. You should expect to spend between two and three hours on each of the first six Units, and then the following six require a much shorter time – so keep this in mind when you start! It is recommended that you aim to complete the programme in 16 weeks.

The programme is divided into 12 Units, each covering one of the areas of core knowledge listed above. You must complete the Units in the order in which they appear. Throughout the Units there is a range of activities that include the following:

- Ensuring that you have access to particular resources, for example, information leaflets
- Making notes on a particular topic
- Work place activities – for example a discussion about how you organise your local immunisation clinics
- Undertaking an audit of the cold chain
- Discussions with your mentor/supervisor

You will see the icons illustrated here to indicate what type of activity should be undertaken:

Written material providing evidence that you have completed these activities should be retained in your Folder of Evidence. Although you can print out documents for your Folder, you may prefer to collate them electronically and create a folder on your computer to do this.



Reading



Mentoring



Web Required



Make Notes

Assessment

Your satisfactory completion of the programme will be assessed in four ways:

1. Completion of multiple choice questions. A few of the Units are assessed by asking you some multiple choice questions. These are completed online, and marked electronically. You will be given feedback on your answers. If you are not satisfied with your score you may wish to revise the content of particular sections. Print out your score sheet and keep in your Folder of Evidence.
2. Folder of Evidence/Discussions with mentor. When you meet with your mentor you will be asked to discuss the notes that you have made, and records of the activities that you have undertaken, all of which should be in your Folder of Evidence.
3. Supervised clinical practice. Supervised clinical practice helps to ensure the integration of theoretical knowledge with clinical practice. You should spend a minimum of two immunisation clinics or four hours (whichever is the greater), working with a competent practitioner who is able to assess your skills. The assessment form to be used for this purpose is found at the end of this document. Once completed, you should retain in your Folder of Evidence and take to your mentor for your final meeting.

When all three components have been completed, your mentor will sign your Certificate of Completion, and inform the person in your organisation who maintains records of education undertaken.

Written material providing evidence that you have completed these activities should be retained in your Folder of Evidence. Although you can print out documents for your Folder, you may prefer to collate them electronically and create a folder on your computer to do this.

Folder of evidence

The aim of developing and presenting a Folder of Evidence is to enable the student to put together a collection of learning which they can use as evidence towards confirming that they have met the learning outcomes of the Units.

What should be included in the Folder of Evidence?

Below are details of specific items referred to during the Units that should be included.

The student should also include notes and reflective comments about the meetings and discussions held with their mentors.

Unit 1

Annexes A and C of Part 2 of the Public Health etc (Scotland) Act 2008.

A Notification Form

The most current quarterly report about vaccine preventable diseases and vaccine uptake from the HPS Weekly Report.

Notes that demonstrate understanding of the role of the JCVI.

Notes demonstrating awareness of local immunisation co-ordinator and relevant committees.

Unit 2

Notes regarding mumps salivary testing results.
Notes explaining why MMR is not recommended to be given prior to 12 months of age.

Unit 3

Table completed with notes about vaccine preventable diseases – signs and symptoms, modes of transmission, periods of infectivity, and possible complications.

Unit 4

Table completed to demonstrate the contraindications for each of the vaccines in the childhood schedule.

Unit 5

Notes about the safety of administering multiple vaccines.

Unit 7

Notes about consent

Copies of PGDs utilised by the student.

Notes regarding the application of Clinical Governance Standards.

Unit 8

Local cold chain policy.

Record of having completed an audit of the cold chain locally, using the tool provided.

Action plan to address any areas identified in the audit as not meeting the requirements of the cold chain.

Unit 10

Notes about adverse drug reactions and the method for their reporting.

Evidence of having undertaken an update in Basic Life Support within the last 12 months, and awareness of arrangements to ensure that this will take place on annual basis.

Anaphylaxis treatment algorithms for children and adults in the community.

Unit 11

Data regarding local, Board and national vaccine uptake.

Notes about the significance of these figures, and reasons for any differences.

Unit 12

Notes about local arrangements for the administration of vaccines, and plans for improvement in line with Recommendation 1 of NICE guidance.

Notes considering how practitioners can help to ensure good immunisation uptake when children enter nursery/childcare provision.

Notes about targeting groups at risk of not being fully immunised.



Notes for mentors

Promoting Effective Immunisation Practice is primarily self-directed, with the student taking responsibility for managing their study time. Your role is to support the students in acquiring their new knowledge and competencies. It is suggested that you meet the students prior to their commencing the programme to ascertain their previous experience in immunisation, and negotiate the level of support that they require. If you are mentoring more than one person, it may be desirable to meet as a group to facilitate discussion.

Mentors will be expected to:

- Have an initial discussion with prospective students to negotiate the nature and frequency of support
- Monitor the student's progress throughout the programme, and help to ensure that they are able to complete it within the suggested 16 weeks
- Identify and support students experiencing difficulties with the programme
- In particular support the application of theory to practice
- Identify an assessor in the workplace who can assess clinical competencies
- Confirm that the learning outcomes and identified competencies have been achieved, and that all activities have been undertaken
- Validate the student's statement of completion.

(Please also refer to Appendix for further detail.)



Assessment of clinical competencies

	Competency	Dates of assessment (minimum 2 assessments per competency)	Signature of assessor that competency achieved
1.	Demonstrates understanding of importance of maintaining cold chain: <ul style="list-style-type: none"> • can state correct temperature range for vaccine storage • records vaccine fridge temperature at start of each vaccine session 		
2.	Checks patient's records prior to vaccination to ascertain previous immunisation history and which vaccines are required to bring patient up to date with national schedule		
3.	Knows whom to contact for advice if unsure about which vaccination to give/vaccine schedule/spacing or compatibility of vaccines		
4.	Gives appropriate advice and information to parents		
5.	Ensures informed consent has been obtained prior to vaccinating		
6.	Correctly reconstitutes vaccines and is aware of which vaccines can be mixed together		
7.	Ensures anaphylaxis equipment is readily available, knows what should be provided and how and when to use it		
8.	Checks correct vaccine and vaccine dose has been prepared prior to administration		
9.	Provides reassurance to vaccinee (and parent) and correctly positions patient prior to vaccinating		
10.	Demonstrates correct injection technique, uses recommended needle size and recommended vaccination site(s)		
11.	Disposes of sharps, vaccine vials and other vaccine equipment safely		
12.	Documents type of vaccine, batch number, expiry date, date given and injection site in personal child health record and clinic notes and reports to Child Health System		
13.	Gives advice to patient about potential side effects and management of these		

I agree that I am competent in all aspects of immunisation:

signed: _____ date: _____

I agree that _____ is competent in all aspects of immunisation:

signed: _____ date: _____

Title, qualifications and relationship to trainee: _____



References

1. HPA (2005) *National Minimum Standards for Immunisation Training*. Immunisation Department, Communicable Disease Surveillance Centre, Health Protection Agency, London.
2. HPA (2005) *Core Curriculum for Immunisation Training*. Immunisation Department, Communicable Disease Surveillance Centre, Health Protection Agency, London.
3. Department of Health (1996, plus later amendments) *Immunisation against Infectious Disease*. (The Green Book). Available online at: <http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/GrenBook/fs/en>





Appendix

Information resource to support the implementation of Promoting effective immunisation practice

This appendix provides a framework to support the implementation of the *Promoting effective immunisation practice* within NHS Boards. It is designed to inform those who have responsibility for services incorporating the administration of vaccines and associated advice and information giving, such as:

- Directors of Nursing
- Immunisation Co-ordinators
- Health Protection Teams
- Practice Development Departments
- General Practitioners/Practice Managers

The target of the Scottish Immunisation Programme is for 95% of children to complete courses of the following vaccines by 24 months: diphtheria, tetanus, pertussis, polio, Hib, MenC and PCV. An additional target of 95% uptake of one dose of MMR by 5 years old was introduced in 2006 to reduce the number of susceptible children entering primary school. This programme will contribute to giving staff the knowledge and confidence to achieve these objectives.

The programme is suitable for all staff whose remit includes immunisation, regardless of the length of time they have been in post. It may be utilised as evidence of continuing professional development. Boards and General Practices may wish to consider eventually incorporating

the requirement to undertake the programme into criteria for administration of vaccines against Patient Group Directions.

It is advisable that staff who are newly given a remit for immunisation should undertake the programme prior to commencing such duties.

NHS Boards may wish to utilise the following template in implementing the programme.

Implementation Action Plan

Implementation Plan (Strategy)				
Action Points	Lead Responsibility	Achieve by (date)	Achieved (date)	Comment
<p>Develop a structure to support implementation.</p> <p>Consider:</p> <ul style="list-style-type: none"> ● Role of Board Immunisation Co-ordinating Group ● Role of Health Protection Team ● Role of “link” immunisation nurses in localities ● Role of Practice Development/Education & Training Departments 				
<p>Identify links with other governance issues.</p> <p>Consider how by implementing the programme it serves e.g.:</p> <ul style="list-style-type: none"> ● Immunisation Target within Local Delivery Plan (95% uptake of MMR1 at 5 years) ● QIS ● Knowledge and Skills Framework 				
<p>Identify order of roll-out.</p> <p>Consider:</p> <ul style="list-style-type: none"> ● Potential mentors ● Articulation with other CPD / mandatory training activities 				

Resource Appraisal

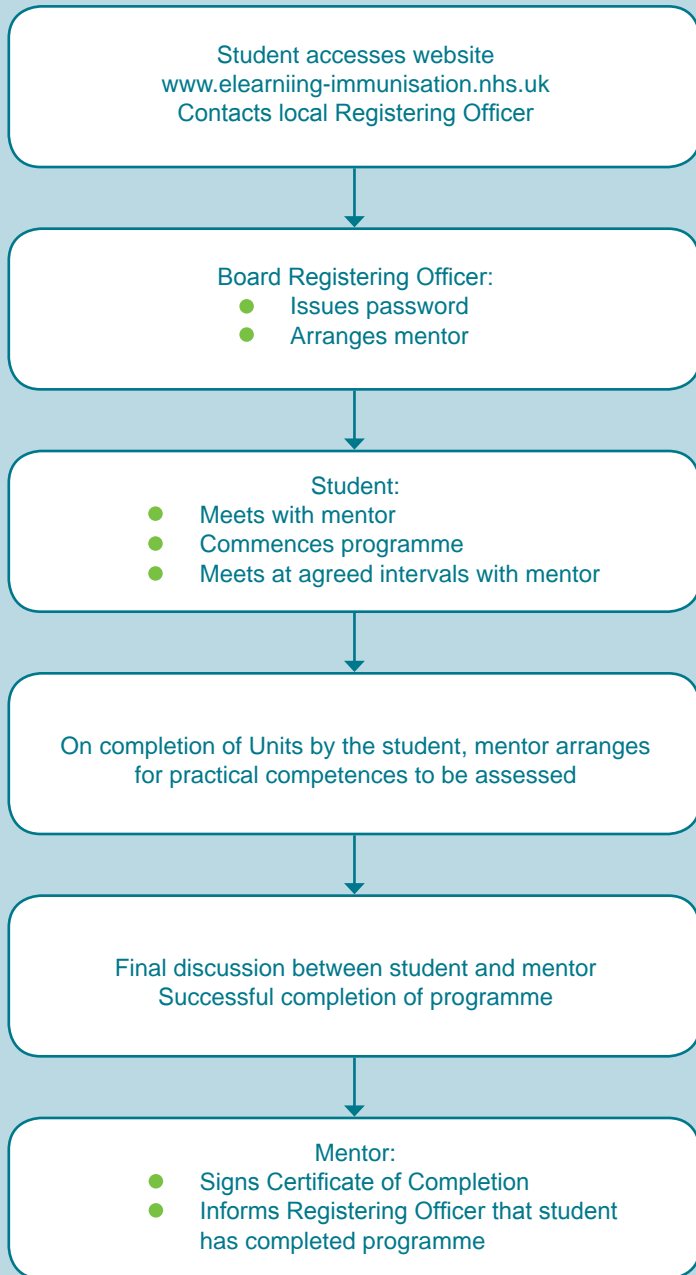
Action Points	Lead Responsibility	Achieve by (date)	Achieved (date)	Comment
Identification of learning resources Consider: <ul style="list-style-type: none"> ● IT access ● IT support 				
Student mentorship arrangements Consider: <ul style="list-style-type: none"> ● Selection of mentors ● Preparation of mentors ● On-going support for mentors 				
Funding Consider: <ul style="list-style-type: none"> ● NHS Education for Scotland has purchased licence so it is free at the point of use 				
Administration Consider: <ul style="list-style-type: none"> ● Appointment of Registering Officer to issue passwords and arrange mentoring ● Recording / reporting 				
Management of protected student time Consider: <ul style="list-style-type: none"> ● Estimating the needs of individual students 				

Supporting Structures

Action Points	Lead Responsibility	Achieve by (date)	Achieved (date)	Comment
<p>Development of a management system to monitor, record and report on and evaluate course effectiveness, learning environments, support services and staff satisfaction.</p> <p>Consider:</p> <ul style="list-style-type: none"> ● Articulation with current systems e.g. IR1 reporting/Datix ● Access to records for relevant service managers 				
<p>Identification of person and or department to lead project</p> <p>Consider:</p> <ul style="list-style-type: none"> ● Practice Development Department ● Training and Development Department ● Named individual ● Forming a Steering Group ● Health Protection Team 				
<p>Lines of communication</p> <p>Consider:</p> <ul style="list-style-type: none"> ● Lead Nurses ● Community Health Partnership General Managers ● Relevant Committees – Clinical Governance 				

Measuring Outcomes

Action Points	Lead Responsibility	Achieve by (date)	Achieved (date)	Comment
<p>Develop local measures to assess impact evaluation</p> <p>Consider:</p> <ul style="list-style-type: none"> ● Use of programme evaluation forms ● Discussion with audit department / Risk Management Team ● Articulation with current audit systems ● Student / staff evaluation ● IR1/Datix reporting levels 				
<p>Lifelong Learning</p> <p>Consider:</p> <ul style="list-style-type: none"> ● Personal Development Plans ● Knowledge and Skills Framework ● Framework for Workforce Education Development for Health Protection in Scotland ● Clinical competence and arrangements for maintaining competence 				



Further information regarding the role of mentor

In ideal circumstances, all mentors should have undertaken the programme prior to mentoring others. However, it is recognised that initially this will not be possible. Therefore in any Board area, it is important that the individual chosen to mentor the first cohort of students should be someone who already possesses a high level of knowledge regarding vaccination and immunisation. This person may be the Immunisation Co-ordinator, a Health Protection Nurse, or another individual with expertise in this area. In such circumstances the mentor may undertake the programme whilst simultaneously mentoring others.

Once the first cohort of students has successfully completed the programme, they may mentor others in their locality, and it is therefore suggested that the first cohort of students are from different localities. All mentors will be aware that if students raise issues to which they feel unable to give an adequate response, a member of the NHS Board Health Protection Team is available to consult.

Mentors may wish to mentor two to four students simultaneously, and arrange to meet as a group.

Before signing the Certificate of Completion the mentor should satisfy themselves that the student has:

- Completed all 12 Units of the programme
- Demonstrated understanding of the Unit contents by appropriate discussion during meetings with the mentor
- Undertaken all Activities, as demonstrated by documents collated in the Folder of Evidence
- Has demonstrated practical competences to a satisfactory standard. (The person who assesses practical competences may be the mentor, or another individual who has previously completed the programme or is experienced in vaccine administration.) If the student has no remit for vaccine administration, this section may be omitted. In such cases, mentors should record on the Certificate of Completion that practical competences have not been assessed.



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