

Specification for a directed enhanced service

Childhood immunisations

Introduction

1. This paper sets out a model for a directed enhanced service (DES) for
 - (i) immunising children aged two years and under; and
 - (ii) pre-school boosters for children aged five years and under.

Aims

2. The purpose of this DES is to continue to ensure that a high percentage of children aged five years and under receive the appropriate immunisations.
3. The scheme will provide a cost-effective means of ensuring that children are protected from these serious diseases and from the complications of those diseases. The scheme remains one of the most effective public health tools in that it not only protects children individually but collectively in the wider community also (especially those for whom immunisation is contra-indicated).
4. The DES would require GP practices to:
 - (i) **develop and maintain a register of all children under and up to five years of age**
 - (ii) **liaise with and inform all parents or guardians of these children of the immunisation programme.** All children and their parents/carers need to be made aware of the benefits of being immunised against childhood infectious diseases. Written information should also be given when appropriate
 - (iii) **undertake to immunise children under five with the relevant immunisations.** This specification is based on the existing lower (70%) and higher (90%) target payments. These are described in the attached Annex
 - (iv) **ensure that all staff providing the DES service to patients will have the necessary skill and training to do so.** This includes continuing training and professional development
 - (v) **have appropriate resuscitation equipment on site in case of anaphylactic reactions.**
5. Exception reporting, including for informed dissent, does not apply.

Review/audit

6. All practices involved in the scheme will be required to conduct an annual review which should include as a minimum a audit of:
 - (i) the rates of immunisation among children two years and under;
 - (ii) the rates of booster immunisation for children up to five years old; and
 - (iii) any changes in these rates within the year and possible reasons for those changes.

Health record

7. Practices need to ensure that the current immunisation status of each child is recorded in the GP-held lifelong record. This should include a record of any parent or guardian refusing to give permission for immunisation and all information and advice given to the parent or guardian involved. Adverse reactions to immunisations must also be recorded.
8. Practices must ensure that details of the patients' monitoring as part of the NES is included in their life-long record. If the patient is not registered with the practice providing the NES, then the practice must send this information to the patient's registered practice for inclusion in the patient.

Pricing

9. Funding for the achievement of childhood vaccination and immunisation targets will be made through enhanced services.
10. For childhood immunisation the price in 2003/04 will be £2,655 for practices meeting the lower target and £7,965 for those meeting the higher target. The price will be uprated by 3.225 per cent per annum in the two following years.
11. For pre-school boosters the price in 2003/04 will be £822 for practices meeting the lower target and £2,465 for those meeting the higher rate. The price will be uprated by 3.225 per cent per annum in the two following years.
12. The prices are based on a practice with a list of 5000, which has 59.25 patients aged two and 61.45 patients aged five. To calculate the actual payment a practice will receive, the prices above are multiplied by the ratio of actual patients in these age bands to the number of patients provided above. The attached annex provides a worked example.
12. Practices will be responsible for reporting to the appropriate PCO all immunisations given as soon as possible in accordance with the local arrangements.

Annex

Target payment specifications

1. Practices will be eligible for target payments if on the first day of a quarter an average of 70 or 90 per cent of children on the practice list on that day:
 - (i) aged two (i.e. children who have celebrated their second birthday but not yet their third) have received the necessary completed courses (as recommended by the Green Book¹) needed for protection against:
 - (a) (Group 1) Diphtheria, tetanus, poliomyelitis
 - (b) (Group 2) Pertussis
 - (c) (Group 3) Measles/mumps/rubella
 - (d) (Group 4) Haemophilus influenzae Type B (Hib); and/or
 - (ii) aged five (ie children who have celebrated their fifth birthday but not yet their sixth) have had the necessary reinforcing doses of diphtheria, tetanus and polio.
2. For calculation purposes immunisation should only be counted if there are no outstanding courses or reinforcing doses required under each programme.
3. The maximum sums payable to a practice under each programme will depend on the number of children on the practice list at the first day of each quarter compared with the average UK number of children per 5000 population. These averages are based on ONS 2001 mid-year estimates, and are 59.25 for age 2 and 61.45 for age 5. The maximum sum payable is therefore:
$$\frac{\text{Number of children aged [2] [5] on the practice list} \times \text{Appropriate target price}^*}{[59.25] [61.45]}$$

*(see 'Pricing')
4. For the purposes of this DES, only those immunisations completed in NHS general practice (i.e. under GMS, PMS or, as proposed under the new contract, equivalent services provided directly by the PCO) will apply. This includes:
 - (i) patients who may have transferred to the practice having already received the necessary immunisations; and
 - (ii) patients who may have transferred to the practice needing, and being given, the final immunisation or booster needed to complete the course, in NHS general practice.
5. Work done by employed or attached staff at the direction of a practice as part of NHS general practice will be treated as being performed by the practice.
6. Completed immunisation will not count where any other remuneration is received for the work outside of this DES (e.g. children immunised privately). The PCO must therefore be notified of any appointments held within the practice which include the carrying out of childhood immunisation and pre-school boosters for any other body (NHS or otherwise).
7. The actual amount payable to a practice will be calculated as follows:
 - (i) the first step will be to determine whether the 90% or 70% target has been achieved by comparing the total number of completing immunisations necessary to achieve the target with the number of completing immunisations actually given. Where the

¹ 'Immunisation against Infectious Disease' HMSO (as updated) provides the immunisation schedule necessary for full childhood immunisation. <http://www.doh.gov.uk/greenbook/>

calculation of completed courses of immunisations needed to reach the target levels would result in a fraction, the target will be rounded to the nearest integer (0.5 being rounded down). Under the age 2 programme, because there are four groups the number necessary to achieve the target will be the appropriate percentage of four times the number of children concerned

- (ii) if a target has been achieved and the number of completing immunisations done by the practice as part of NHS general practice is greater than the number of children needed to reach target level, the latter figure will be counted
- (iii) the actual amount payable to the practice will be calculated by multiplying the maximum sum payable by the number of completing courses/boosters done by the practice as part of NHS general practice, divided by the number needed to achieve the appropriate percentage coverage.

Example of calculation

A practice has 60 children on its list aged 2, and 67 aged 5.

Of those aged 2:

all 60 have complete courses of Group 1 (diphtheria, tetanus, poliomyelitis) immunisations; 30 by the practice as part of NHS general practice, 15 by another practice as part of NHS general practice and 15 by a PCO-run clinic

45 have completed courses of Group 2 (pertussis) immunisations; 24 by the practice as part of NHS general practice, 21 by a PCO-run clinic

36 have completed courses of Group 3 (MMR) immunisations; 15 by the practice as part of NHS general practice, 6 by another practice as part of NHS general practice and 15 by a private clinic (ie outside the NHS)

54 have completed courses of Group 4 (Hib) immunisations; 30 by the practice as part of NHS general practice, 4 by another practice as part of NHS general practice, and 18 by a PCO-run clinic and 2 received a Hib vaccine before entering the UK.

Of those aged 5:

50 have had pre-school boosters, 49 of which were given by the practice as part of NHS general practice, and 1 of which was given the booster by a PCO-run clinic.

Step 1

To reach the target under each programme the practice would need to achieve the following completing immunisations:

For age 2

70%/90% of number of children with completing immunisations, in each group, $([0.7] [0.9] \times 60 \times 4)$

so:

the 70% target requires **168** completing immunisations

the 90% target requires **216** completing immunisations

For age 5

70%/90% of the number of children, $([0.7] [0.9] \times 67)$

so:

the 70% target requires **47** completed boosters

the 90% target requires **60** completed boosters

Step 2

Calculating if the target was reached:

For age 2

Group 1 = 60
Group 2 = 45
Group 3 = 36
Group 4 = 54

Total = 195

The 70% target is reached but since 70% of 60 x 4 = 168 completed immunisations, it is treated as **168**.

For age 5

The practice has given 49 children completed boosters under NHS general practice. The 70% target is reached but since 70% of 67 children = 47 completed boosters it is treated as **47**.

Step 3

Calculating the maximum sums payable:

For age 2

The calculation is:

Number of children aged 2 on the practice list X Lower target fee
59.25

so:

$$\frac{60}{59.25} \times 2,572 = \mathbf{£2604}$$

For age 5

The calculation is:

Number of children aged 5 on the practice list X Lower target fee
61.45

so:

$$\frac{67}{61.45} \times 796 = \mathbf{£868}$$

Step 4

Calculating how much work was completed in NHS general practice and so how much is the payment to the practice:

For age 2

The number of completed immunisations in NHS general practice is:

Group 1, $60 - 15 = 45$
(but since 70% of 60 children = 42 immunisations it is treated as 42)
Group 2, $45 - 21 = 24$

Group 3,	36 – 15	=	21
Group 4,	54 – (18+2)	=	34
Total		=	121

So the payment will be the proportion of number of completed immunisations by the practice as part of NHS general practice [121] as a proportion of the number needed to reach the target level [168].

The calculation is:

Maximum sum payable x NHS general practice proportion = payment to practice

So:

$$£2604 \times \frac{121}{168} = \mathbf{£1875}$$

For age 5

The number of NHS general practice completed boosters is 49 however because the number needed to achieve target is 47 it continues to be treated as 47 for determining the proportion delivered in NHS general practice.

so:

$$£868 \times \frac{47}{47} = \mathbf{£868}$$