

Childhood Vaccinations made Simple

Childhood vaccination is an interesting topic for discussion for many reasons. It can be a polarising issue and it should not be taken for granted that all parents will responsibly put their child into the recommended immunisation schedule.

Parent Fears

Community pharmacists and their teams should be aware of parents who are concerned about the erroneous links between vaccines and conditions such as autism. When things happen to one's child at the same time as they are vaccinated it is natural to wrongly presume there is a link.

Many pharmacists will be aware of patients who are convinced that the flu vaccine they received gave them the flu. Again, there is no proven link and the chances are that they caught their flu during the height of flu season, unluckily before immunity had reached its full strength, which can take up to fourteen days.

The vaccination schedule in Ireland

Table 1 shows the current vaccination schedule from birth to 1 year old in Ireland as recommended by the HSE

The 6 in 1 vaccine covers diphtheria, hepatitis B, haemophilus influenza type b (Hib), pertussis (whooping cough), polio and tetanus.

As well as being able to discuss the above with new parents, pharmacists can refer them to download the booklet "Your child's immunisation – A guide for parents" from the HSE website or print a copy of the short guide to give to them yourself.

Herd Immunity

The early childhood vaccination schedule is designed to get the maximum protection for our children and our population from diseases that were once prevalent and now are almost eradicated thanks to vaccinations.

The success of a vaccination schedule depends on achieving population immunity to a level that imparts something called herd immunity to that population. This is when the disease or virus runs out of non-immune hosts to infect and thus is not passed on and leaves the population entirely. Cases of the individual diseases eradicated by the vaccines may still be reported but are often due to introduction from other countries or regions that do not have herd immunity.

Table 1 Immunisation Schedule

Age	Visit	Vaccination
2 Months	1. 3 injections, 1 oral drop	6 in 1, Men B, PCV, Rotavirus
4 Months	2. 2 injections, 1 oral drop	6 in 1, Men B, Rotavirus
6 Months	3. 3 injections	6 in 1, PCV, Men C
12 Months	4. 2 injections	MMR, Men B
13 Months	5. 2 injections	Hib/Men C, PCV

Symptoms of measles include:

- High fever
- Cough
- Runny nose
- Red eyes
- Red rash that starts on head and spreads down the body – this normally starts a few days after the onset of the illness. The rash consists of flat red or brown blotches, which can flow into each other. It lasts about 4-7 days.
- Vomiting diarrhoea and tummy pain may also happen.

Pharmacists should be vigilant for the signs of measles and report any suspected cases to the Health Protection Surveillance Centre. Contact details can be found easily on the website along with a wealth of information on childhood vaccinations.

From September 2019, secondary school children in first-year are offered a meningococcal ACWY booster vaccination.

The Meningococcal ACWY vaccine will boost children's protection against group C meningococcal disease. It will also provide additional protection against meningococcal groups A, W and Y. In addition, this vaccine also reduces the risk of carrying the disease so can help protect other people too.

MenACWY being used in Ireland is Nimenrix. This is a conjugate vaccine containing Group A, C, W and Y polysaccharides conjugated to tetanus toxoid carrier protein. The vaccine protects against N. meningitidis Groups A, C, W and Y invasive disease.

Each year in Ireland about 400 people will be diagnosed with a

cancer caused by the HPV virus. The HPV vaccine is endorsed by the Irish College of General Practitioners (ICGP), the Irish Pharmacy Union and the Irish Cancer Society's HPV Alliance and by major medical and scientific bodies worldwide including the World Health Organization, the Centres for Disease Control in the USA, the EU funded European Centre for Disease Control and Prevention and the International Federation of Obstetricians and Gynaecologists.

Since 2015 more cases of invasive meningococcal serogroups W and Y disease have been seen in Ireland. Prior to 2015 the annual number of both serogroups was low. Between 1999 and 2014 there was an average of two cases for both serogroups reported per year.

Between 2015 and 2018, a total of 36 serogroup W and 20 serogroup Y cases were reported, giving an

average annual notification rate 9 cases per year of serogroup W and for 5 cases per year of serogroup Y.

In view of the emergence of meningococcal serogroups W and Y, the National

Immunisation Advisory Committee (NIAC) recommended that one dose of MenACWY vaccine should be given to all students in 1st year of second level education replacing the MenC vaccine in 2019.

Meningococcal disease can start very suddenly. Symptoms include fever, stiff neck, headache, joint pains and a rash.

Meningococcal disease can occur at any age, but the highest rate occurs in children under 5 years of age, especially children under 1 year old. The next high-risk group are young people aged 15-19 years.

