

Getting ready for HPV vaccination: an excellent opportunity for pharmacists

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The recent announcement by the Department of Health to introduce routine vaccination, in England and Wales, against human papilloma virus (HPV) for girls aged 12 to 13 years from September 2008 brings new opportunity for improving public health as well as challenges for health professionals and policy makers. HPV vaccination has previously been available in the US and Australia. It is also available in UK in private clinics at a cost of around £450.

Generally speaking, pharmacists are the first point of call for medicines and health information by the public. As one of the most trusted professional, pharmacists have to be well informed and up to date with new developments in health services.

One of the questions pharmacists may be asked by parents or public may concern the safety of the vaccines. Bearing in mind the issues surrounding MMR (measles, mumps and rubella) vaccination, safety is bound to be a major concern. With about five years' experience globally, the European Medicines Agency (EMA) and the US Food and Drug Administration (FDA) consider the vaccines to be safe with no major adverse effects. The recent rise of the legal debate in the US linking thiomersal (organomercury, used as preservatives in vaccines) with autism could provoke serious anxiety in parents. The good news is that HPV vaccines do not contain

thiomersal or mercury. Another question pharmacists might be asked is whether girls still need cervical screening once vaccinated.

The answer is "yes" because these vaccines do not protect against all genotypes of HPV. So regular screening must be carried out in addition to vaccination. Pharmacists might also be asked whether vaccinated girls are safe from all STIs. The answer is "no", because it does not protect against bacterial or fungal infections or other viral infections.

One of the critical messages is that HPV vaccination is not a substitute for cervical screening and HPV vaccination does not protect against all STIs. This may appear to be a rather simple message to pass on but in practice it is not an easy task. All health care professionals, governments and allied organisations (including cancer, sexual and reproductive health and health promotion groups) must act together to plan successful communication strategies.

Pharmacists can play a crucial role in this ambitious plan. In my view, innovative and daring pharmacists can grab this opportunity to raise their professional profile. Pharmacists can promote the vaccine, provide information and education to public, make referrals or even vaccinate people, either in schools or in pharmacies. Vaccination coverage in target populations will be crucial if maximum benefit from any vaccination programme is to be

achieved. For this reason, all available and competent resources, including pharmacists, must be utilised.

"Public health", one of the essential services in the new community pharmacy contract, presented pharmacists with opportunities and challenges. No doubt pharmacists have been playing major roles in promoting public health through many endeavours such as stop smoking services, blood pressure monitoring, diabetes screening, cholesterol testing, chlamydia screening, advising on healthy lifestyles and so on. Pharmacists are competent and confident in providing new services and deserve their fair share of any reward system.

The Joint Committee on Vaccination and Immunisation has advised that HPV vaccination would be most efficiently delivered through schools. Nonetheless, the decision on how to deliver vaccination programmes locally has been left to individual primary care organisations. So now is a good time for pharmacists and professional bodies to approach PCOs, local pharmaceutical committees, schools and surgeries at this early stage of the HPV vaccination programme when decisions on how it will be delivered have still to be made.

I believe the vaccination programme is an excellent opportunity for the profession to be involved in the decision-making process.

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Human papilloma virus: genotypes, incidence and available vaccines

HPV is a member of papilloma family of viruses. It was first isolated from rabbits by Richard Shope in 1933. A papilloma is a small benign epithelial tumour, such as a wart. HPV is linked to nearly all cervical cancer cases. HPV is transmitted through skin to skin contact during sexual activity. Out of 40 different genotypes of HPV that can infect the genital areas of men and women, HPV types 16 and 18 are sometimes referred to as "high risk" genotypes because these are responsible for approximately 70 per cent of cervical cancers (but in Europe it can be as high as 85 per cent) and 80–90 per cent of anal cancers. The other two genotypes, HPV 6 and 11, are designated "low-risk" because they cause relatively benign cervical dysplasia. Nonetheless, HPV 6 and 11 are causally related to 90 per cent of genital warts.

The peak incidence of HPV infection occurs between 16 and 20 years of age. In UK, cervical cancer has an annual incidence of 3,320 cases and causes 1,330 deaths. Globally, there are around 510,000 new cervical cancer cases and around 288,000 deaths each year.

Currently there are two brands of HPV vaccines licensed in the EU — Gardasil and Cervarix. Gardasil protects against HPV types 6, 11, 16 and 18 whereas Cervarix protects against HPV types 16 and 18. Both vaccines have been shown to

be almost 100 per cent effective against HPV-related cervical intraepithelial neoplasia (CIN). Gardasil is licensed to be used from nine years of age and Cervarix from 10 years of age. Each vaccine needs to be given three times over six months: months 0, 1 and 6 for Cervarix and months 0, 2 and 6 for Gardasil. The relative prices of these vaccines will have major impact on decision makers to choose particular brands.

The introduction of HPV vaccination in England and Wales is in line with the global immunisation vision and strategy of the World Health Organization and UNICEF. The chief aim is to reduce illness and death due to vaccine-preventable diseases globally by at least two thirds by 2015 compared with 2000.

According to the Department of Health the current target population is 12- to 13-year-old girls, one reason being cost effectiveness. HPV vaccination is most effective in people who have not previously been infected with HPV. Ideally, therefore, it should be given to girls before their sexual debut. HPV vaccination will prevent almost 70 per cent of cervical cancers and it is expected that introduction of HPV vaccination will save around 400 lives per year. Gardasil, but not Cervarix, will also prevent almost 90 per cent of genital warts, currently the most frequently diagnosed viral sexually transmitted infection in the UK.