

EDITORIALS

HPV vaccination

What about the boys?

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A year ago an editorial in *The BMJ* highlighted the limitations of HPV vaccination in the UK¹ and called for decisive action to maximise the public health benefits by thinking about vaccinating boys and some men. Similarly, a recent review by Stanley concluded, after consideration of cost effectiveness, that “failure to implement male vaccination looks like a missed public health opportunity.”² We therefore share the disappointment expressed by the Royal College of Surgeons’ cancer services committee about the lack of response to its concerns about the inequity of vaccinating only girls against HPV in the UK.³

To summarise, the UK vaccination programme initially opted for Cervarix, a bivalent vaccine against HPV types 16 and 18, which are associated with cervical cancer. The programme switched to the quadrivalent Gardasil (which also protects against genital warts caused by HPV types 6 and 11) in September 2012 but still vaccinates only 12-13 year old girls. Interestingly, new data show that at that age the immune response to these vaccines is excellent and that only two doses of either vaccine is sufficient for long lasting immunity, rather than the three required at older ages.

Australia was the first country to vaccinate girls, introducing a catch-up programme to age 26 years in 2007. Genital warts have a relatively short incubation period and, as predicted, within four years researchers reported a highly significant decrease in genital warts not only in young women but also in heterosexual men.⁴

These Australian data led public health leaders elsewhere to hope that vaccinating girls would create the herd protection required to also protect heterosexual men. However, the Australian experience may not translate to European countries, which have easier flow of populations across land borders. For example in Denmark, high coverage with the quadrivalent vaccine has been accompanied by a precipitous decline in genital warts in young women under 18, but little decline in warts in men has been detected so far.⁵

It is easy to see why the vaccination programme was initially targeted at young women, who will benefit from a substantial

reduction in cervical cancer and similar reductions in all forms of cervical dyskaryosis. This should lead to more a streamlined cervical screening programme and much less colposcopy and invasive treatment. However, the evidence is now conclusive that HPV also causes oropharyngeal cancers, with most cases caused by HPV-16 and HPV-18, and this has the fastest rising incidence of any cancer (15% a year).²

An estimated 90% of cases of anal cancer in the UK are also linked to HPV infection. According to new figures published by Cancer Research UK, anal cancer rates in the UK have increased by nearly 300% in the past 40 years.⁶ Overall, rates have risen from 0.4 in every 100 000 adults in the mid-70s to 1.5/100 000 today. Anal cancer is still relatively rare and awareness of the disease is low, although the latest figures suggest that death rates have more than quadrupled since the mid-70s. Roughly six people now die every week from the disease in the UK.⁶ In gay men who are infected with HIV, the incidence of anal cancer is even more alarming; rates of 107/100 000 have been reported in the US.⁷

Sexual health professionals in the UK have already called for the vaccination of young men who have sex with men in the hope of preventing mainly anal cancers and anal warts.⁸ Realistically, for optimal effect the vaccine should be given at 12-13 years of age, and as only two doses may be given at this age, this strategy would also maximise cost effectiveness. However, young gay men may not declare themselves before their late teens, by which time they could have acquired several HPV types already. So an immediately implementable strategy would be to offer vaccination with three doses to all young gay men attending sexual health clinics, in the same way as they are currently vaccinated against hepatitis B.

Such a strategy would be seen to discriminate against young heterosexual men. There is also the potential that the successful “cervical cancer” vaccine programme could start to be portrayed as a programme for gay men, which could lead to confusion and have a negative effect on uptake overall.

The only sensible answer to these dilemmas is a gender neutral vaccination strategy in schools that gives two doses of the

vaccine to all 12-13 year old boys and girls. Anything else is discriminatory, inequitable, less effective, and difficult to explain. Can the UK afford to do it? If the price is right, we can't afford not to.

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