

EXECUTIVE COUNCIL

RESTRICTED

Title of Report: Human Papilloma Virus Immunisation – A Supplementary Report

Paper No: 132/09

Date: 25th June 2009

Report of: Chief Medical Officer

1.0 Purpose

1.1 This paper provides further information supporting the proposal outlined in ExCo paper Ref 68/09.

2.0 Recommendations

2.1 This paper recommends the introduction of Human Papilloma Virus Vaccination for 12 year old girls. The previous paper outlined 2 proposals:

- Proposal 1 to introduce the vaccination for 12 year old girls with no catch-up programme.
- Proposal 2 included a catch-up programme to aged 18.

There were 2 variations of proposal 2

- a “one off” catch –up programme in year 1
- a 5 year catch-up programme.

3.0 Summary of Financial Implications

3.1 The 5 year catch up programme is included in the current budget. The difference between the ‘one off’ catch-up proposal & the budget would be:

2009/10	2010/11	2011/12	2012/13	2013/14
£36,000	(£9000)	(£9000)	(£9000)	(£9000)

4.0 Background

4.1 Cervical cancer is primarily a disease of younger women of child bearing age. It is caused by viral infections, particularly Human Papilloma Virus (HPV) of which there are many strains. This is the first cancer where there is an immunisation that will actually prevent people from developing a cancer and is an extremely significant medical breakthrough. Unfortunately only 40% of cervical cancers will be prevented as the remaining 60% are caused by a wide

variety of HPV strains and other viruses for which there is no immunisation available.

- 4.2 As the recent case of Jade Goodey in the UK illustrates, cervical cancer kills young people. However the vast majority of women who develop an abnormal cervical smear can be treated and cured relatively easily.
- 4.3 Having an abnormal cervical smear will certainly result in needing much more frequent cervical smears for a minimum of 5 years and often requires colposcopy (examination of the cervix by a binocular microscope) with or without surgery to remove the affected area. This has a significant cost (see below) in monetary terms but also in huge anxiety for the affected woman and can, in a few case, render them incapable of having a successful pregnancy thereby having a major impact upon their life.
- 4.4 Each cervical smear costs £34 in laboratory costs without taking into account the time of the staff taking it and consumable items.
- 4.5 Apart from the economic issues described below this is the first time in medical science that we are in a position to actually prevent a type of cancer and prevent all the anxiety and morbidity associated with having an abnormal cervical smear. In the CMO's opinion there is absolutely no doubt that this vaccine is an important and essential part of the preventative health strategy for the Falkland Islands.
- 4.6 Whether there is a catch-up programme and whether this is funded as a "one off" or spread over a number of years is, arguably, a matter of finance but to failure to provide this vaccine to all girls in the future from the age of 12 is failing the population.

5.0 Economics

- 5.1 The normal recall period for cervical smears is every 3 years. If a patient has an abnormal smear then they will be advised to have further smears at 3 monthly, 6 monthly or annual intervals depending upon the severity of the abnormality.
- 5.2 During the 3 year period 01.01.06 – 01.01.09 a total of 809 smears were taken. 54 were reported as abnormal and a further 23 needed gynaecological referral for colposcopy. 125 were recalled annually, 39 six monthly and 2 three monthly. There have been no deaths from cervical cancer in the Falklands in the last 20 years.
- 5.3 This means that:
125 patients had a total of 250 extra smears compared to normal patients
39 patients had a total of 195 extra smears each compared to normal patients
2 patients had a total of 22 extra smears each compared to normal patients
- 5.4 This resulted in a total of 467 extra smears at a total cost of £15878 over a period of three years.

- 5.5 Colposcopy can be undertaken in the Falklands if there is a visiting specialist coming within a specified time period which is determined by the severity of the abnormalities seen on the smear. There have been and will continue to be cases where either an extra visit by the specialist has to be arranged or patients need overseas referral.
- 5.6 During the 3 year period there were 7 overseas referrals at a total £14000x and one extra gynaecological visit at a cost of £5000 = a total of £19000 over a period of three years.
- 5.7 Therefore the total extra costs incurred as a result of abnormal cervical smears over a three year period is £34878.
- 5.8 Given that HPV vaccine will prevent 40% of cervical cancers and abnormal smears then introduction of the HPV vaccine would result in a cost savings of $£3487 \times 40\% = £13951$ over three years or £4650 approximately every year. However this savings will not begin to be evident for approximately 15 years ie when the 12 year olds reach the age of 27.
- 5.9 Provision of HPV vaccine will cost £7500 per annum. So the net annual cost of HPV vaccine in 15 years time will be $£7500 - £4650 = £2850$.
- 5.10 The catch up programme is more complex. As women become sexually active a proportion of each cohort will become infected with HPV each year so that by the age of 27 roughly 30% of the population have been exposed (UK figures). This means that in these women the vaccine will be ineffective. Therefore there is a case of diminishing returns. On the other hand there is a shorter time lag until the financial benefits kick in around their mid-20's. The UK government, along with a number of others has opted for 18 as the cut off point. This is arbitrary but seems a reasonable age to chose. Whether it is a one off catch up or spread over a number of years is really a financial and logistic issue. From a health point of view the CMO does not think it makes a great deal of difference. The one off plan has the benefit that more women are protected immediately.
- 5.11 It should also be noted that in the longer term HPV vaccine will come "off patent" in approximately 8 years time and therefore the price should fall significantly whereas the cost of cervical smears and medical treatment overseas is likely to rise in line with medical inflation costs. Therefore over time the cost benefit equation will continue to improve.

6.0 Summary of Financial Implications

Proposal 1

The gross cost per annum is £7500 on a recurring basis

Proposal 2

The cost of a "one off catch –up programme would be:

2009/10	thereafter
£52,500	£7500

The gross cost of a 5 year catch-up programme would be:

2009/10	2010/11	2011/12	2012/13	2013/14	thereafter
£16500	£16500	£16500	£16500	£16500	£7500

(This amount is included in the current budget.)