[redacted]

Monday 9th June 2008

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BY E-MAIL

Dear Eloise,

MULTIPLE TECHNOLOGY APPRAISAL –
Influenza (prophylaxis) – amantadine, oseltamivir and zanamivir:
Response to Appraisal Consultation Document

Thank you for sending us the Appraisal Consultation Document (ACD) for the above technology appraisal. Our response is provided below under the three standard headings of response.

1 WHETHER YOU CONSIDER THAT ALL OF THE RELEVANT EVIDENCE HAS BEEN TAKEN INTO ACCOUNT

Roche believe that the majority of relevant evidence has been taken into account in this appraisal. However Roche feel that the extent to which the Appraisal Committee took into account some of the evidence and feedback submitted on the Assessment Report is unclear. Little emphasis seems to be given to the majority of the points made by Roche in response to the Assessment Report and so the key messages from our previous response are attached again here, in Appendix A. Roche believes that these issues (Preventative efficacy of vaccination; Assumed number of GP visits; Probability of hospitalisation; Estimated drug costs; Probability that patients present within 48 hours; Practical implementation of the Assessment Report findings; and Budget impact estimates) are worthy of detailed consideration by the Appraisal Committee. Failure to consider this evidence would represent a weakness in the technology appraisal.

An important overarching issue in this appraisal which has not been taken into account in the evidence used to formulate recommendations relates to the dynamic benefits of prophylaxis treatment of influenza. Dynamic benefits are not included in the Roche or the Assessment Group's economic model. No benefits associated with preventing transmission of influenza from the person who receives prophylaxis that avoids infection, to others who may have contracted the illness from this person are included in the analysis. Such dynamic effects would increase the QALY gain associated with prophylaxis and would also reduce NHS resource use due to avoided influenza. Technically and computationally including such benefits is difficult and Roche believes that the cost effectiveness of oseltamivir can be demonstrated without a dynamic model. However, because the Assessment Group's results show higher ICERs than the Roche model, taking oseltamivir over the cost effectiveness threshold on some occasions, taking account of the dynamic effects becomes very important. Including dynamic effects in an economic assessment would reduce the ICERs associated with oseltamivir for all treatment groups and the Appraisal Committee should consider taking this into account in their deliberations.

2 WHETHER YOU CONSIDER THAT THE SUMMARIES OF CLINICAL AND COST EFFECTIVENESS ARE REASONABLE INTERPRETATIONS OF THE EVIDENCE AND THAT THE PRELIMINARY VIEWS ON THE RESOURCE IMPACT AND IMPLICATIONS FOR THE NHS ARE APPROPRIATE

Roche considers that the current interpretations of the evidence by the Appraisal Committee are not always appropriate and in line with the usual classification of cost effectiveness by NICE and it is presently unclear why this is the case.

Roche feel that the cost effectiveness results of the Assessment Group's report have not been adequately reflected in the Appraisal Committee's provisional recommendations given the convention that interventions associated with incremental cost effectiveness ratios (ICERs) of less than £30,000 are considered cost effective and recommended for use within the NHS. For a number of patient groups, oseltamivir and zanamivir have not been recommended despite the Assessment Group estimating cost effective ICERs.

These patient groups are discussed below.

Post-Exposure Prophylaxis

- **Healthy Unvaccinated Children**

The Assessment Group estimate an ICER of £23,225 for zanamivir compared to no prophylaxis for these patients. Oseltamivir is associated with very slightly less QALYs for this patient group compared to zanamivir (0.0032 QALYs lost compared to 0.0029), but this is at lower cost (£54.35 compared to £61.18).

Hence the cost effectiveness results for oseltamivir and zanamivir are very similar for these patients compared to no prophylaxis. Using the figures presented by the Assessment Group, the ICER for oseltamivir compared to no prophylaxis can be calculated as £23,593. Given that the Appraisal Committee has accepted that it is not possible to differentiate between the efficacy of oseltamivir and zanamivir (therefore equal efficacy should be assumed) the ICER for oseltamivir should be even lower.

Therefore both oseltamivir and zanamivir have ICERs of well below £30,000 for these patients, reflecting a cost effective use of NHS resources. In addition, table 75 in the Assessment Group's report states that at a cost effectiveness threshold of £30,000 there is a 45% probability that zanamivir will be the most cost effective treatment, a 40% probability that oseltamivir will be the most cost effective treatment, and only a 15% probability that no prophylaxis will be most cost effective. Therefore despite a combined probability of 85% that either zanamivir or oseltamivir will represent the most cost effective treatment in this patient group neither treatment has been recommended by the Appraisal Committee and no reason has been given for this omission.

- **At Risk Vaccinated Children**

The ACD only recommends oseltamivir or zanamivir for these patients if a child is not adequately protected by vaccination. However the Assessment Group estimate an ICER of below £30,000 for *all* at risk vaccinated children. In a similar way as for healthy unvaccinated children, the cost effectiveness results are very similar for oseltamivir and zanamivir. Zanamivir has an ICER of £27,684 compared to no prophylaxis, and the figures quoted by the Assessment Group mean that oseltamivir has an ICER of £29,062 compared to no prophylaxis. Again, assuming equal efficacy between oseltamivir and zanamivir as accepted by the Appraisal Committee would result in a lower ICER for oseltamivir. Table 75 in the Assessment Group's report shows that at a cost effectiveness threshold of £30,000 there is a 31% probability that zanamivir will be the most cost effective treatment, and a 29% probability that oseltamivir will be the most cost effective treatment for these patients, representing a 60% probability that either oseltamivir or zanamivir will be the most cost effective use of NHS resources. There is only a 39% probability that no prophylaxis will be cost effective for these patients. Therefore again both treatments have mean ICERs and probabilistic sensitivity analysis results that would usually be accepted to represent a cost effective use of NHS resources, but the Appraisal Committee has not reflected this in their recommendations as yet. Again no reason has been given for this.

- **Summary of Evidence for Healthy and At Risk Children**

When considering the modelling results for healthy and at risk children the Appraisal Committee must consider that data for zanamivir is extrapolated from data in adults, while data for oseltamivir is taken directly from the relevant population.

The modelling performed by the Assessment Group in the PEP setting for healthy children and at risk children has shown amantadine and oseltamivir to be dominated by zanamivir. Upon reviewing table 32, page 150, it would appear that the Assessment Group have accepted the relative risk of contracting influenza following PEP for oseltamivir in healthy children and at risk children to be 0.36 and 0.36 respectively. The RRs of 0.36 have been derived from sub-group analyses of the paediatric group from the household study by Hayden et al (2004) as stated in the report section 5.2.2.2.2, page 84. However, the RR used for the paediatric groups when modelling zanamivir were taken from the mixed group studies of adults and children from Hayden (2000), Kaiser (2000) and Monto (2002) with no specific sub-group analyses performed for the paediatric groups.

As increased viral shedding is well-documented in the paediatric setting with expected lower efficacy of anti-virals compared to the adult setting, it would be inappropriate and inconsistent to extrapolate data from mixed paediatric and adult data to the paediatric groups for zanamivir and use the paediatric specific data for oseltamivir. Therefore to apply mixed adult/paediatric efficacy data to represent paediatric efficacy biases this analysis in favour of zanamivir.

Roche would suggest that sub-group analyses are performed in the defined paediatric setting using the databases that informed the Hayden (2000), Kaiser (2000) and Monto (2002) studies to enable a less biased comparison to be made between the anti-virals within the paediatric setting. Alternatively, Roche would suggest using the adult oseltamivir RRs for paediatrics to ensure a like for like comparison of the efficacy of the anti-virals.

The Roche model assumed that oseltamivir and zanamivir were equally effective in influenza prophylaxis. This assumption was based in part upon the available evidence – as the table above highlights there is very little difference in the preventative efficacies across oseltamivir and zanamivir – and in part due to expert clinical opinion at a UK Advisory Board. It was generally felt by the attendees that oseltamivir and zanamivir are equally effective in influenza prophylaxis.

This assumption is key in determining the most realistic cost effectiveness estimates for these patient groups. Adjusting the Assessment Group's economic model so that it assumed equal efficacy between oseltamivir and zanamivir should result in reducing the ICER for oseltamivir and as such the probability that oseltamivir is the most cost effective treatment option in these patient groups would increase. Taking this into account Roche believes that the non-recommendation of oseltamivir for healthy unvaccinated children and at risk vaccinated children is not supported by the evidence. This is a particular concern because the reasons for this decision have not been made clear by the Appraisal Committee.

Seasonal Prophylaxis

– **At Risk Unvaccinated Children**

For this patient group the Assessment Group estimate an ICER of £16,630 for seasonal prophylaxis with oseltamivir compared to no prophylaxis. The Appraisal Committee note in the ACD that oseltamivir is not recommended in this population because of uncertainties surrounding the clinical inputs in the economic model. However it is Roche's belief that the results of the economic modelling are by definition the best informed estimate possible for each population. The rationale for undertaking economic analyses is to inform decision makers through use of the best clinical and economic evidence available, incorporating any uncertainty within the analysis (primarily through the use of probabilistic sensitivity analysis). Therefore to disregard economic evidence due to uncertainty is to disregard the best evidence available and instead to rely on judgement which by definition is associated with far more uncertainty than the economic analysis. The probabilistic sensitivity analysis conducted by the Assessment Group illustrates that with an ICER threshold of £20,000 there is a 70% probability that oseltamivir is the cost effective treatment option for seasonal prophylaxis of at risk unvaccinated children. This rises to 94% at an ICER threshold of £30,000. Roche believes that this represents strong evidence that oseltamivir should be recommended for this population group.

It is Roche's belief that the ACD is too narrow in the patient populations for which oseltamivir is recommended in some instances. These are discussed below.

– **Healthy and At-Risk Vaccinated Elderly**

The ACD only recommends oseltamivir for the vaccinated elderly population in a residential or nursing home setting when there is a localised outbreak of influenza. The ICERs estimated by the Assessment Group for oseltamivir compared to no prophylaxis are £28,473 for the healthy vaccinated elderly and £21,608 for the at-risk vaccinated elderly. Table 75 in the Assessment Report shows that for the at-risk vaccinated elderly there is a 78% probability of oseltamivir being the most cost effective treatment, given a cost effectiveness threshold of £30,000. For the healthy vaccinated elderly there is a 50% probability that oseltamivir represents the most cost effective treatment option, compared to a 47% probability that no prophylaxis is most cost effective. Therefore based on the ICERs and probabilistic sensitivity analysis presented by the Assessment Group Roche believes that oseltamivir should be recommended for all elderly people whether or not they have been vaccinated and whether or not they live in a residential or nursing home, when influenza is circulating. The ACD does not explain why this recommendation is not made.

3 WHETHER YOU CONSIDER THAT THE PROVISIONAL

RECOMMENDATIONS OF THE APPRAISAL COMMITTEE ARE SOUND AND CONSTITUTE A SUITABLE BASIS FOR THE PREPARATION OF GUIDANCE TO THE NHS

As highlighted above the cost effectiveness results of the Assessment Group's economic model are very sensitive to changes in a number of assumptions. A change in a combination of these assumptions would considerably impact the final incremental cost effectiveness ratios. In addition it is an overarching issue that neither the Roche economic model or the Assessment Group model consider any benefits associated with preventing transmission of influenza from the person who receives prophylaxis that avoids infection, to others who may have contracted the illness from this person. Including this dynamic effect in an economic assessment would reduce the ICERs associated with oseltamivir for all treatment groups. Therefore all recommendations made in situations where the ICER is close to the cost effectiveness threshold should be made with this in mind. As stated in Roche's response to the Assessment Group's report considering multiple GP prescriptions per consultation – a very plausible assumption as explained in Appendix A, part (i) – also substantially reduces ICERs and the cumulative effects of these issues must be considered by the Appraisal Committee.

It is Roche's belief that the sensitive assumptions and the dynamic nature of prophylaxis in this setting have not been considered in enough detail by the Appraisal Committee and further discussion should take place on this.

In addition, the traditional cost per QALY decision rule does not seem to have been implemented in a consistent manner by the Appraisal Committee and therefore the provisional recommendations are not wholly suitable as a basis for guidance to the NHS.

We hope that our feedback is helpful to the Appraisal Committee in its subsequent deliberations.

Yours sincerely,

APPENDIX A: Key points raised by Roche in response to the Assessment Report

(i) Assumed number of GP visits for prophylaxis put first

The Assessment Group's model assumes in the base case that each prescription of an anti-viral requires one GP consultation. Therefore, each individual requiring prophylaxis with anti-virals needs to consult the GP themselves.

The Roche submitted model was based on an average household of 4 individuals. Once an index case becomes ill with ILI they will consult the GP for treatment. The GP can then prescribe prophylaxis for each remaining member of the household once the GP is familiar with each member and is aware of their health background. The Roche model therefore assumes one GP consultation per household, which is assumed to be on average 4 individuals.

The impact of this assumption on the post exposure prophylaxis cost effectiveness estimates is considerable and has been examined in the sensitivity analysis outlined in the Assessment Report. Table 1 summarises the base case estimates, assuming a GP consultation for every individual and the impact on the ICER when one GP consultation per household (4 individuals) is assumed.

As Table 1 highlights, changing this assumption to one GP consultation per household results in the ICER for oseltamivir reducing significantly.

- The ICER for oseltamivir was previously over a £30,000 threshold for at risk adults who were vaccinated, changing this assumption decreases the ICER to £22,704.
- For healthy adults who are unvaccinated the base case was £34,181, changing the number of GP consultations per household reduces this ICER to £17,161.
- The ICERs for healthy and at risk children reduce significantly and for all groups except healthy vaccinated children are substantially below £20,000.

The evidence base for the one GP consultation per household assumption was taken from a Roche UK advisory board with influenza experts. The attendees were of the opinion that for the purposes of post exposure prophylaxis GPs would provide prescriptions for a household at the one GP consultation.

As the model is evidently very sensitive to changes in this assumption it is Roche's belief that the assumption of one GP consultation per individual should be reconsidered as a base case assumption in the model. Roche recommends that this assumption requires greater consideration by the appraisal committee and expert opinion should be sought on the robustness of either of the above assumptions.

The Assessment Group report shows that under the realistic assumption that multiple prescriptions are made by a GP in one consultation oseltamivir is a cost effective use of NHS resources for healthy unvaccinated adults, at-risk vaccinated adults, vaccinated elderly patients and vaccinated at-risk children, in the post exposure prophylaxis setting. The ACD does not represent this adequately in its recommendations.

Table 1: Estimated incremental PEP cost effectiveness ratios assuming one GP consultation per household (assessment report)

	Healthy children		At risk children		Healthy adults		At risk adults		Healthy elderly		At risk elderly	
	Unvacc	**Vacc**	**Unvacc**	**Vacc**	**Unvacc**	**Vacc**	**Unvacc**	**Vacc**	**Unvacc**	**Vacc**	**Unvacc**	**Vacc**
Post exposure prophylaxis												
Base case	**23,225 (Z)**	**71,648 (Z)**	**8,233 (Z)**	**27,684 (Z)**	**34,181**	**103,706**	**13,459**	**43,970**	**10,716**	**28,473**	**7,866**	**21,608**
Multiple prescriptions	19,634 (Z) 11,322 (O)	61,717 (Z) £38,627 (O)	6,797 (Z) 4,075 (O)	23,706 (Z) 14,428 (O)	17,161	55,124	6,017	22,704	4,897	14,651	3,327	10,894

(ii) Preventative efficacy of vaccination

The assessment group model assumes that vaccines are 58% effective for elderly, 65% for otherwise healthy adults and 64% effective for children at preventing influenza. Roche believes that these assumptions are valid only when seasonal mis-match has not occurred and may be too high for certain sub-groups such as the elderly and paediatrics.

There are a number of publications which illustrate some of the problems with regard to reduced effectiveness associated with vaccination against Influenza;

- UK HPA website (Cooke et al 2005) cites effectiveness of between 38 and 52% in adults and children in the UK in season 2003 to 2004 due to virus/ vaccine mis-match
- Jefferson 2005 : < 22% in prevention of respiratory admissions amongst community-dwelling elderly
- Goronzy 2001: in elderly - only 17% of vaccine recipients in this study generated an increase in antibody titre to 3 vaccine components and 46% failed to respond to any of the 3 haemagglutinins used in vaccination. Successfulness of vaccination declined with age.
- Carrat 2007 – in this publication, vaccine mis-match is cited to have an impact on vaccine effectiveness caused by antigenic drift – mis-match had significant epidemiological and economical consequences in the 1997-1998 season where mis-match occurred.
- Boschini 2006 – an outbreak of flu was studied in a residential drug-rehabilitation community in 2004. The attack rate in the sample size of 1310 was found to be higher than that typically found in HIV-infected persons. The author stated vaccination was ineffective because of the mis-match between wild and vaccine strains.
- De Jong 2000 – A mis-match between the influenza vaccine and the major epidemic of influenza A (H3N2) occurred in 1997-1998 season and was cited as the cause of an inadequately vaccinated elderly population.
- Beyer 1993 – In 1992, 2/3rds of the population of a nursing home in Amsterdam was vaccinated. However in March 1993 an outbreak of Influenza occurred with a morbidity rate of 49% and a mortality rate of 10%. The Flu virus was A/H3N2. Failing vaccine effectiveness was attributed to a mis-match with the circulating virus.

It is well documented that vaccination has a decline in efficacy in an ageing population. This in combination with a frequent mis-match between the vaccine and the circulating influenza strains indicates that the preventative efficacy of vaccination in the elderly population assumed in the assessment group model may need to adjusted downwards. In this case the ICERs estimated by the Assessment Group would decrease and it is not clear whether the Appraisal Committee have taken this into account in their deliberations.

(iii) Probability of hospitalisation for ILI

The probability of hospitalisation for influenza has been excluded from the ScHARR economic model. This assumption is not representative of clinical practice as patients can be hospitalised for influenza and not just influenza complications like bronchitis or pneumonia. The probability of hospitalisation due to influenza for patients treated with usual care is not well documented however there is data available to show that patients with influenza do require hospitalisation. This lack of robust data makes it difficult to realistically estimate influenza specific probabilities. As documented in the Roche submission the influenza related probability of hospitalization (1.9%) was taken from Cox et al (2000). The study estimates excess pneumonia and influenza hospitalizations from National Hospital Discharge Survey Data from 26 influenza seasons (1970–1995). This study is based on US health care data however it was assumed that these probabilities would not differ for UK patients.

The exclusion of the probability of hospitalisation for influenza from the base case estimates has a considerable impact on the cost effectiveness estimates as shown in the assessment report sensitivity analysis, summarised in Table 4.

Table 4: Estimated incremental seasonal and PEP cost effectiveness ratios assuming 10% of influenza illness that is uncomplicated require hospitalisation (assessment report)

Assumptions	Healthy children		At risk children		Healthy adults		At risk adults		Healthy elderly		At risk elderly	
	Unvacc	Vacc	Unvacc	Vacc	Unvacc	Vacc	Unvacc	Vacc	Unvacc	Vacc	Unvacc	Vacc
Seasonal prophylaxis												
Base case	**44,007**	**129,357**	**16,630**	**51,069**	**147,505**	**427,184**	**63,552**	**186,651**	**49,742**	**121,728**	**38,098**	**93,763**
10% uncomplicated hospitalisation	35,111	103,495	8,341	41,402	110,466	379,639	47,704	166,024	35,219	103,957	27,159	80,480

	Healthy children		At risk children		Healthy adults		At risk adults		Healthy elderly		At risk elderly	
	Unvacc	Vacc	Unvacc	Vacc	Unvacc	Vacc	Unvacc	Vacc	Unvacc	Vacc	Unvacc	Vacc
Post exposure prophylaxis												
Base case	**23,225 (Z)**	**71,648 (Z)**	**8,233 (Z)**	**27,684 (Z)**	**34,181**	**103,706**	**13,459**	**43,970**	**10,716**	**28,473**	**7,866**	**21,608**
10% uncomplicated hospitalisation	£3,485 (Z)	£51,937 (Z)	696 (Z)	20,165 (Z)	2,920	72,366	430	30,956	O dominates	16,207	O dominates	12,411

Although the assumption tested in the sensitivity analysis that 10% of patients with uncomplicated influenza require hospitalisation may be too high for some patient groups, the base case cost per QALY estimates currently assumes no hospitalisation for influenza. Roche would argue this assumption is not representative of the illness and so should not be used as the sole basis for the Appraisal Committee's recommendations. The Appraisal Committee should consider that this sensitivity analysis illustrates that oseltamivir may be cost effective for a larger proportion of the population than for which it is recommended in the ACD.

(iv) Estimated drug costs

The Assessment Group estimated the cost of amantadine, oseltamivir and zanamivir across the patients groups for seasonal and post exposure prophylaxis. Drug wastage is captured in the cost estimates. Roche believe that the seasonal drug costs for oseltamivir in paediatrics is overestimated. The table below provides a summary of what Roche considers the most appropriate drug cost estimates to be for these patient groups.

Table 5: Estimated oseltamivir drug costs for paediatrics

Oseltamivir	Drug cost	Description
Children 1-12 years	£49.08	Average weight 25kg Recommended dose: 60mg once daily for 6 weeks 60mg*42 = 2,520mg One bottle suspension = 900mg Therefore 3 bottles required Cost per bottle £16.36 Total cost = £49.08
Children 1-5 years	£49.08	Average weight 16kg Recommended dose: 45mg once daily for 6 weeks 45mg*42 = 1,890mg One bottle suspension = 900mg Therefore 3 bottles required Cost per bottle £16.36 Total cost = £49.08

The Assessment Report estimates drug costs for oseltamivir in children to cost £73.65. It is not clear how this cost has been derived.

(v) Probability that patients present within 48 hours

The assessment group assumes that 52% of paediatrics, 16% of otherwise healthy adults and 11% of elderly present within 48 hours. This is in contrast to the Roche model which is based on the assumption that those patients who present after 48 hours will be filtered out via consultation with their GP. Therefore 100% compliance to the licensed indication is assumed and the evaluation relates to the cost effectiveness of prophylaxing patients who present within the 48 hour period. Patients who do not present within 48 hours, and are thus outside of the licensed indication, would not receive oseltamivir and do not form part of the economic evaluation. It is not clear how the Appraisal Committee have taken this argument into account.

(vi) The practical implementation of the assessment report findings

The assessment report found zanamivir to be the most cost effective prophylaxis option in healthy and at risk children, both vaccinated and unvaccinated, also in some of the sensitivity analysis zanamivir was found to be the most cost effective prophylaxis option in

some at risk populations. Roche appreciate that the Appraisal Committee acknowledges the difficulty in differentiating between the efficacy of oseltamivir and zanamivir and as such both are recommended for several population groups. However based on currently available evidence Roche believes that the Appraisal Committee should reassess whether both treatments should be recommended in populations for which evidence is lacking, and the mode of administration of each treatment should be taken into account to a greater extent.

Oseltamivir is conveniently taken by mouth and is available in a variety of formulations designed to facilitate its weight-based dosing in children (30, 45 and 75 mg capsules and a powder for suspension). In contrast, the zanamivir Diskhaler® is likely to require tuition for many children/carers and may be difficult for some young children to use properly, either because of incorrect technique or the generation of an insufficient peak inspiration flow rate to activate the device [SPI 2008a, SPI 2008b]. In principle, suboptimal exposure to treatment could risk the development of drug resistance, as well as treatment failure. In providing guidance to General Practitioners NICE should highlight the convenience of administration of the two treatments in order to facilitate decision making.

It is also worth noting that as per the zanamivir SPC it has not been possible to demonstrate the efficacy and safety of zanamivir in patients with severe asthma or with other chronic respiratory disease, patients with unstable chronic illnesses or immunocompromised patients who have been treated. Due to limited and inconclusive data, the efficacy of zanamivir in the prevention of influenza in the nursing home setting has not been demonstrated. The efficacy of zanamivir for the treatment of elderly patients ≥65 years has also not been established

Should zanamivir be considered appropriate for patients with asthma or chronic obstructive pulmonary disease, the patient should be informed of the potential risk of bronchospasm with zanamivir and should have a fast acting bronchodilator available. Patients on maintenance inhaled bronchodilating therapy should be advised to use their bronchodilators before taking zanamivir.

(vii) Budget impact estimates

It is indicated in the report that the population has been multiplied by the attack rate to calculate the number of individuals likely to receive PEP. However it is not clear from table 79 that this is the case. For instance using this method would give 2.2 million (8.8% * 25,110,750) healthy adults expected to receive PEP not the stated 5 million.

For the proposed method of calculating the incidence of ILI to be accurate the attack rate would need to represent the probability of an individual contracting ILI in a given year. However the attack rate of 41% assumed for residential care homes represents the probability of an individual contracting ILI in an affected care home. Thus one would need to multiply this figure by the probability of a care home being affected in an average year. It is not evident from the report that this has been done and brings into question the appropriateness of the attack rates applied to the other groups.

From a face validity perspective the incidence figures in the report appear to be an

overestimate. In a recent 2007 publication by Pitman et al (Commissioned by the Department of Health) it was estimated that 779,000 general practice consultations are attributable to influenza infections in the England and Wales. From table 79 it appears that the assessment group has estimated 10.7 million individuals requiring PEP. This would seem to be unlikely given the current number of GP consultations as it would mean around 14 PEP prescriptions per current ILI GP consultations.

Given that 779,000 people currently consult the GP for ILI and there are on average 4 people per household one might expect around 2.3 million individuals [779,000 * (4 – 1)] requesting PEP, effectively 22% of the number estimated by the assessment group.

We request that a full description of how the additional budget impact has been calculated from the incidence rates in table 79 as it is currently not clear from the report.

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