Department of Health & Children
AN ROINN SLÁINTE AGUS LEANAÍ

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

14 July 2009

To
All Medical Practitioners
CC
All health care professionals
All health managers

Re: Policy changes in clinical and public health management of Influenza A(H1N1)v - effective from Thursday 16th July 2009.

Dear Doctor

We are writing to you to make you aware of important changes which are being made in the clinical and public health management in Ireland of Influenza A(H1N1)v – A(H1N1)v – and to explain the rationale for these changes. **These changes come into effect from Thursday 16th July 2009.** The changes are set in an algorithm in Appendix 1.

We would like to begin, however, by taking this opportunity to personally thank you for the effort that is being put in by all doctors, nurses and other professionals and which has helped us to deal with this issue since it began in late April 2009.

We will need to continue to work together over the coming weeks and months to reduce the potential impact on the public and your patients as we face an inevitable increase in the number of cases.

A. Background

A public health alert was received from the World Health Organisation (WHO) on Friday, 24th April 2009 indicating that human cases of A(H1N1)v infection had been identified in the US and in Mexico.

At that time, the WHO pandemic alert level was at phase 3 but on 11th June the WHO raised this alert level to phase 6 which in effect declares a pandemic. Pandemic means that an influenza virus, new to humans, has appeared, is spreading and is causing disease in many parts of the world. The WHO assessed the severity of the current pandemic as moderate.

It is worth reflecting on the fact that in spite of containment strategies in most developed countries, this virus spread around the world faster than any previous influenza pandemic. Only six weeks elapsed between the initial cases being identified in Mexico and the declaration of a global pandemic.

- **What is known so far about the spread and severity of this virus?**

A number of publications are now beginning to appear that have assimilated information from the international experience with cases that have occurred to date. This has allowed patterns of infection and risk factors for severe infection to be identified with more certainty. One such publication from the European Centre for Disease Control (www.ecdc.europa.int) on cases throughout Europe, was published on 9th July 2009. Its principal findings are listed below:

- Individual data were reported on 7,706 confirmed cases of influenza A(H1N1)v infection by 28 EU/EEA countries until 6th June 2009 (78% reported by the United Kingdom).
- Travel-related cases account for 19% of the reported cases. The main areas to which cases had travelled were the USA (61%), Mexico and South American countries (20%) and other EU/EEA countries.
- 77% of cases were reported in children and young adults under 30 years of age.
- Among 1,695 reported cases of A(H1N1)v cases, 165 (9.7%) had at least one underlying condition.
- 81% reported general symptoms (at least one of fever, headache, muscle pain or joint pain).
- 70% reported respiratory symptoms (at least one of dry/productive cough, sore throat, runny nose, sneezing, shortness of breath).
- 14% reported gastro-intestinal symptoms (at least one of diarrhoea, vomiting, nausea).
- A(H1N1)v appears to be as contagious as seasonal influenza.

In developed countries, approximately 98 to 99% of cases have been mild in that cases have not required admission to hospital and have made a full recovery. It can be said, therefore, that the great majority of people with mild symptoms and who do not belong to a high risk group (see Section D below) will make a full recovery without medical assistance or antiviral treatment.

However, there have been some hospitalisations and deaths, albeit in relatively small numbers, among those who do not belong to these high risk groups. Another concerning feature that distinguishes A(H1N1)v from seasonal flu is that it appears to primarily affect younger people with the majority of European cases being aged under thirty. This infection is also occurring out of the normal 'flu' season when transmission of the influenza

and similar viruses is usually at a very low level. As a result of these features, the WHO has classified the severity of this pandemic as **MODERATE** rather than mild.

- **Overview of spread internationally**

The latest reports (13th July 2009) from the WHO show that cases of the A(H1N1)v have occurred in 120 countries including Ireland. There have been 94,512 laboratory confirmed cases and 429 deaths globally. The actual number of cases is likely to be much higher than these numbers suggest as many, particularly mild cases, will not have been detected, especially in developing countries.

- **Oseltamivir (Tamiflu) resistance**

Detection of oseltamivir resistance in individual patients does occur in a low percentage of treated cases and is of limited public health significance, although it is important to monitor whether such resistant viruses are being transmitted from person to person. So far, there have been three reports of oseltamivir resistance; one each in Denmark, Hong Kong and Japan. These viruses were found in three patients who did not have severe disease and all have recovered. Investigations have not found the resistant virus in the close contacts of these three people.

B. Situation in Ireland

Ireland has now seen more than 100 new cases, the majority of which have occurred in travellers to other regions. All cases can be accounted for in terms of the source of their infection. There have a small number of hospitalisations with all other cases managed in the community in accordance with appropriate clinical and public health protocols.

We expect to see an increase in cases in Ireland continuing into the autumn and winter when an acceleration in cases, similar to that currently taking place in the UK is very likely.

- **Overview of response so far**

Up until now, our policy has been one of containment. As the disease was initially mostly confined to the USA and Mexico, we confined our clinical and laboratory diagnostic processes to people who had travelled from those regions; we tried to confirm all suspect cases with a laboratory test; we treated all cases and we offered chemoprophylaxis to the close contacts of probable and confirmed cases.

The purpose of these efforts was to delay transmission but it could never prevent it from happening. However, it did help to "buy time" for preparations to be made and for our plans to be tailored to the precise challenges that were posed by this new virus. In particular, this included the procurement of pandemic vaccine. The time has also allowed us to develop a better

understanding of the virus and its likely impact on individual patients, particularly vulnerable groups and on the population at large.

C. The rationale for a change in policy from containment to mitigation

The National Public Health Emergency Team (NPHET) which manages Ireland's response to this infection decided, based on advice from the Pandemic Influenza Expert Group chaired by Professor Bill Hall, at its meeting on 9th July that we would change our policy in responding to this infection from one of containment to one of mitigation. A number of factors were taken into account in making this decision.

The WHO has advised Member States to reduce laboratory testing of suspect cases and to move to clinical diagnosis of influenza-like illness. In addition, the UK, including Northern Ireland, made a decision to move from containment to mitigation about two weeks ago on the basis of their patterns of sustained community transmission. Similar decisions are now being made in other countries throughout the European region.

In summary, we face a major increase in cases of A(H1N1)v infection. We cannot prevent this from happening but we can mitigate its impact. We must now focus our energy and resources on preparing to treat increasing numbers of cases and preparing for mass immunisation with the pandemic vaccine. This will have a greater beneficial effect on limiting the potential public health impact than would a continued policy of prevention and containment of this illness.

D. Clinical and public health management as and from 16th July 2009

The principal differences that result from our policy change from containment to mitigation involve moving to clinical rather than laboratory diagnosis for mild cases, stopping routine contact tracing, only treating and swab-testing severe and/or high risk[1] cases and only offering antivirals to very high risk contacts.[2] Only general practitioners participating in the Influenza Sentinel Surveillance system should continue to routinely swab cases of Influenza-Like Illness (ILI). This will allow us to reduce the burden of testing on doctors, nurses and laboratories while maintaining our ability to monitor trends and possible changes in the behaviour of the virus.

[1] People with chronic respiratory, heart, kidney, liver and neurological disease; immunosuppression (whether caused by disease or treatment); diabetes mellitus; people aged 65 years and older; children under 5 years old; people on medication for asthma, severely obese people (BMI ≥40) and pregnant women

[2] People on medication for asthma, severely obese people (BMI ≥40) and pregnant women

These changes are summarised in the box below and are set out in the form of a new clinical and public health algorithm at Appendix 1.

Summary of principal changes in Mitigation Phase:

a. **TEST**
   - Patients who appear to have severe symptoms
   - Patients who are in defined high risk groups
   - All suspected cases who have a household contact in a very high risk group[2]

b. **TREAT**
   - Patients who appear to have severe symptoms
   - Patients who are in defined high risk groups[1]
   - All suspected cases who have a household contact in a very high risk group[2]

c. **CHEMOPROPHYLAXIS** should be considered for the following very high risk contacts[2] of laboratory confirmed cases of A(H1N1)v:
   - pregnant women
   - the severely obese (BMI>40)
   - those on medication for asthma

d. **Chemoprophylaxis** should also be considered in institutions where there are a number of people at high risk as agreed with public health departments.

NOTE: As with all communicable diseases, clinicians should seek further advice and guidance if necessary from a local public health specialist.

- **Non medical management**

The Health Protection Surveillance Centre (HPSC) maintains up-to-date guidance and advice on all clinical and non-clinical aspects of the management of cases of A(H1N1)v by a range of health professionals and in various health settings. This guidance can be found at www.hpsc.ie.

- **Travel advice**

As this pandemic progresses, a history of travel outside Ireland will become a less consistent feature of cases. Medical practitioners must use their judgement in relation to this. As of yet, the majority of cases have involved travel outside Ireland or close contact with cases that have been acquired outside of Ireland. This will change over the coming weeks. The travel advice to the general public is included at Appendix 2 for your information.

E. What to expect in the coming weeks and months

Disease modelling

Mathematical modelling of influenza can be used to develop potential pandemic scenarios for planning purposes. Models are based on data from previous pandemics or available characteristics of the emerging pandemic strain, such as the incubation period.

At present, a model developed by the Health Protection Agency (UK) based on a weighted average of UK data from the last three pandemics is one of the planning tools in use for consideration of potential impact in Ireland.

There were three influenza pandemics in the 20th century in 1918, 1957 and 1969 and each had a number of waves. All had infection rates of between 20 and 40% in their initial waves.

Learning from the past to predict future spread

A(H1N1)v is a new virus and one to which most people have no or little immunity. This virus could, therefore, cause more infections than are seen with seasonal flu. Studies of previous pandemics suggest a much larger wave of infection (with more illness and death) in the autumn or winter of this year. Most planning scenarios have focussed on a clinical attack rate of 25% which would equate to approximately one million clinical cases in Ireland.

As the infection spreads throughout the world, we will see more cases and it is inevitable that we will see the virus become established in this country while categorised as moderate. It is also possible that the virus could increase its virulence possibly as a result of interaction with avian influenza virus.

It is highly likely that this increase in cases will occur in the autumn as schools return and the conditions for transmission of the virus become more favourable. This must be the main focus of our collective preparations in the weeks and months ahead.

In the coming months, we will begin to receive delivery of pandemic vaccine. Ireland has contracts in place to provide us with 7.7 million doses over a period of between 6 and 12 months. It is recommended that two separate doses are given. Delivering this vaccine will be a major logistical exercise. Vaccine administration will begin with those in the highest risk groups and with essential workers, especially health care workers. Plans for the delivery programme are being finalised and its timing will depend on when, and in what quantities, the vaccine begins to be received as well as the timing of appropriate clinical safety data and licensing arrangements.

F. Conclusion

Overall, Ireland is well prepared for this influenza pandemic. We have robust plans in place and are working very closely with national experts and international authorities. Unlike previous influenza pandemics in the last

century, the global community understands better how to plan and manage pandemics and, therefore, we are better prepared than ever in the past. Science has allowed us to develop antivirals and to rapidly produce vaccine. As a result, Ireland has been able to secure large amounts of these relative to our needs. Our population is much healthier now than during many previous pandemics and that is a further cause for optimism.

We cannot, however, become complacent. The virus exhibits some worrying behaviours which we do not fully understand as of yet. It also has the potential to become more virulent. Even if it does not, an infection rate in our population of 25%, albeit with mostly mild cases, will generate sufficient morbidity to place significant strain on family doctors, hospitals, ventilation equipment and intensive care facilities.

We, therefore, ask you to work with us in the coming weeks and months as we continuously refine the implementation of our plans as this rapidly evolving situation unfolds.

Again, we want to offer you our sincere thanks and appreciation for all your work to date as we work together to deal with this global pandemic and its effects in Ireland.

More detailed information and guidance will continue to be available through the following websites

Department of Health and Children	www.dohc.ie
Health Service Executive	www.hse.ie
Health Protection Surveillance Centre	www.hpsc.ie

Yours sincerely

Dr Tony Holohan
Chief Medical Officer
Department of Health & Children

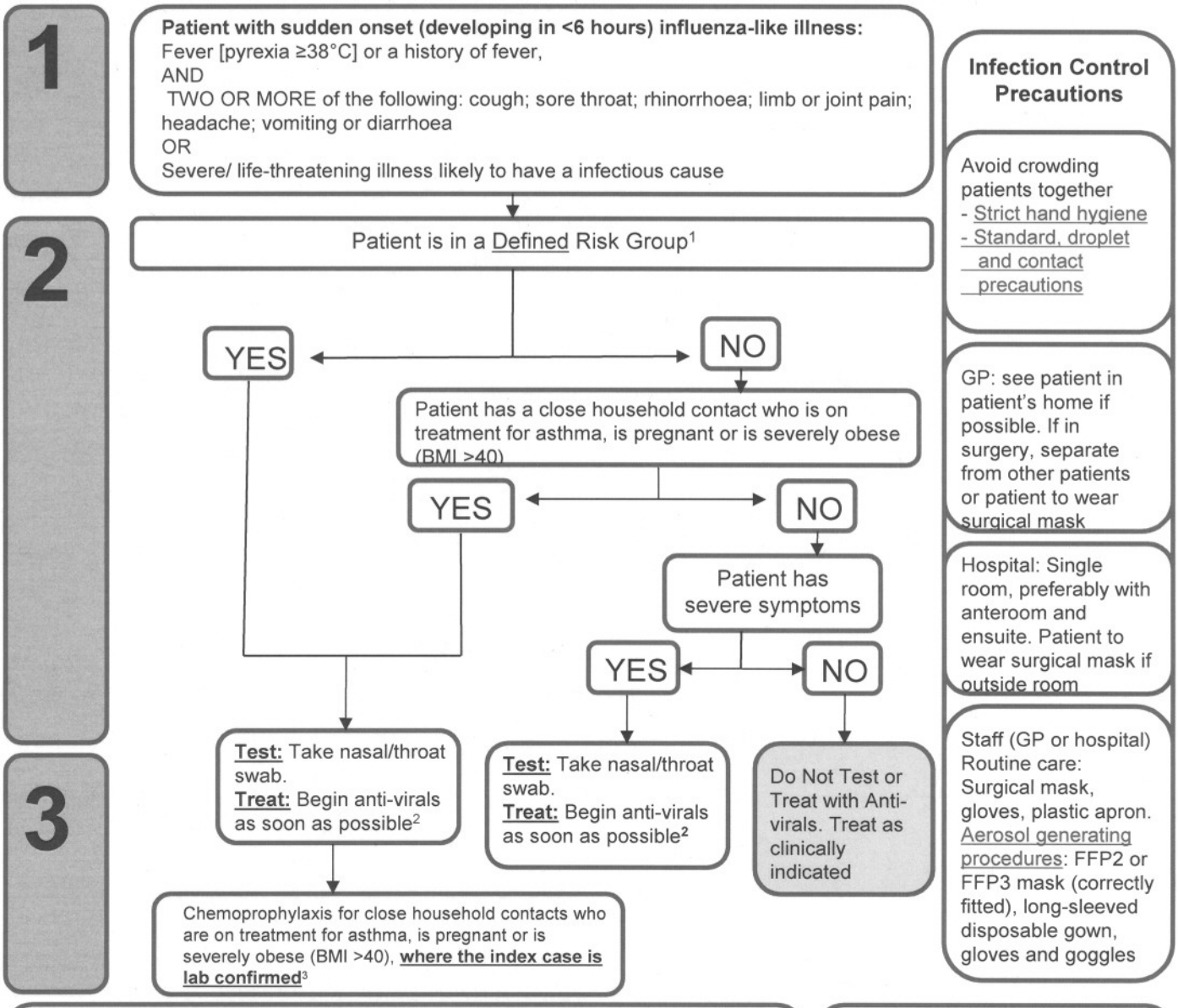
Yours sincerely

Dr Patrick Doorley
National Director,
Population Health
HSE

14 July 2009

Appendix 1

Stage 2: Algorithm for the Management of Persons with Acute Febrile Respiratory Illness who may have influenza A(H1N1)v



[1] **Defined** risk groups are: Chronic respiratory, heart, kidney, liver, neurological disease; immunosuppression (whether caused by disease or treatment);
diabetes mellitus; people aged 65 years and older; children <5 (children <2 are at particular risk of influenza); people on medication for asthma, severely obese people (BMI ≥40) and
pregnant women

[2]Treatment should be started as early as possible, while awaiting laboratory confirmation. Antiviral treatment may be started at any time if the patient
is symptomatic – not just within 48 hours of onset of symptoms
If result is negative for influenza A, discontinue antiviral treatment
If result is positive for influenza A(H1N1)v or seasonal influenza A, antiviral treatment should be continued for 5 days

[3]Contacts who become symptomatic should be managed as a case, i.e. tested and treated as above

Appendix 2

Travel Advice to the General Public

Our current advice is that we do <u>not</u> recommend Irish citizens postpone elective or non-essential travel to any area.

We recommend that travellers at risk of complications from A(H1N1)v such as those with chronic conditions (for example diabetes, lung disease, heart disease), elderly, pregnant women or children under 2 years of age, discuss the risk of travel with their health care provider before deciding on travel.

Travel precautions going to an affected area:

- Familiarise yourself with sources of health advice in the country of travel and pay attention to local government and public health announcements including any prevention recommendations.
- Avoid close contact with people who have fever, sneezing or cough.
- If you are sick, avoid close contact with others, stay at home or in your hotel room.
- If you have a mild flu-like illness, seek medical advice over the phone if practical.
- Seek medical care if severely ill. Antiviral medications can be prescribed for the treatment of influenza.
- Do not travel or fly home if you are ill.
- General advice includes frequent and thorough hand washing with soap and water, or alcohol based hand cleaners, particularly after sneezing or coughing. Cover your nose and mouth with a tissue when coughing, sneezing or wiping and dispose of tissues into a bin immediately.
- If you are caring for someone who is ill, try to ensure they are not in close contact with others. Wearing a mask may be protective for those who are caring for someone with influenza.