Glen Abbot Ltd. Swine Flu Briefing 28 – 09/08/2009

Author: David Hutcheson MBCI, Managing Director of Glen Abbot Ltd.

David.hutcheson@glenabbot.co.uk

Current Situation:

A quite flu week! In the northern hemisphere the number of cases is continuing to plateau or decline. The southern hemisphere, however, continues to see problems arise in their winter.

As was expected the number of cases in England has started to fall. This matches what has happened in other countries (such as the USA, Mexico and Scotland) all of which have this happen.

The number of new cases of swine flu in England dropped sharply last week, with an estimated 30,000 new cases reported.

All 31 EU and EFTA countries have now reported cases of H1N1. The recorded number of cases world wide sits at some 208,000.

Here are some of the key points made at this week's briefing by the chief medical officer (CMO) in England:

- There is still no sign of the virus mutating into a more dangerous form, or developing resistance to drugs.
- The number of swine flu-related deaths in England is now 36.
- In total, 530 patients were admitted to hospital in England last week, down on the previous week's total of 793.
- In Australia, about a quarter of hospital patients are in intensive care. There have been a relatively high number of deaths, and it is not known why.
- The position in Latin America is worsening.
- In Argentina, the number of deaths has doubled in a fortnight (The figure I can find for this is currently 338 deaths in 5701 reported cases, some 6%)

Flu and the Immune System

Flu in itself is not generally a 'killer' disease, despite what the media may say. It would seem that most fatalities come from secondary conditions or from pneumonia.

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Quayside House Friarton Road, Perth PH2 8BB Telephone: 08450 531537 Email:enquiries@glenabbot.co.uk Website: www.glenabbot.co.uk Research in the USA has found that many so-called flu deaths result after the patient develops pneumonia due to secondary infection with bacteria such as *Streptococcus pneumoniae*, *Staphylococcus aureus*, known as golden staph, or *Klebsiella pneumoniae*

Many people with flu are more susceptible to pneumonia is not well known.

One study has found that interferons are normally produced by the immune system to limit viral replication and control infection.

But the researchers found they make individuals with flu more sensitive to bacterial pneumonia, by impairing the the body's ability to mount an adequate immune response to the bacteria.

Professor Richard Barry has explained how a bacterial infection secondary to flu such as 'strep throat' can be lethal.

"Bacteria creep down the throat and into the depths of the lungs where they normally aren't present," he says. "Macrophages (white blood cells) and neutrophils in the lungs normally gobble up bacteria, but bacterial pneumonia can overwhelm these cells because there's so many bacteria."

Recent research indicates most of the deaths in the 1918 Spanish' flu pandemic may have been due to secondary 'super infection' caused by Streptococcus pneumoniae.

Are early release vaccines a threat?

Concern has been expressed in a number of quarters (including by me I will confess) that a flu vaccine would be released very quickly before full clinical trials. The WHO has moved to address this and here is an extract of a briefing by them on the subject:

WHO is aware of some media reports that have expressed concern about the safety of vaccines for pandemic influenza. The public needs to be reassured that regulatory procedures in place for the licensing of pandemic vaccines, including procedures for expediting regulatory approval, are rigorous and do not compromise safety or quality controls.

Vaccines are among the most important medical interventions for reducing illness and deaths during a pandemic. However, to have the greatest impact, pandemic vaccines need to be available quickly and in large quantities. During the 1957 and 1968 pandemics, vaccines arrived too late to be used as an effective mitigation tool during the more severe phases of the pandemics. Influenza vaccines had not yet been developed when the 1918 pandemic swept around the world, eventually killing an estimated 50 million people.

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Quayside House Friarton Road, Perth PH2 8BB Telephone: 08450 531537 Email:enquiries@glenabbot.co.uk Website: www.glenabbot.co.uk Specific regulatory procedures have been devised to expedite the approval of pandemic vaccines. In the USA, for example, fewer data are required when the manufacturer already has a licensed influenza vaccine and intends to use the same manufacturing process for its pandemic vaccine.

In the European Union, the European Medicines Agency uses a rolling review procedure whereby manufacturers can submit sets of data for regulatory review as they become available, without having to wait until all data can be submitted together in a single formal application.

Influenza vaccines have been used for more than 60 years and have an established record of safety in all age groups. While some serious adverse events have been reported, these have been rare.

Time constraints mean that clinical data at the time when pandemic vaccines are first administered will inevitably be limited. Further testing of safety and effectiveness will need to take place after administration of the vaccine has begun.

Past Briefings

All previous briefings are available at our website:

www.glenabbot.co.uk

Training and Consultancy

We provide specific pandemic training courses both publicly and bespoke to companies. If you are interested please contact me directly or email Geoff Howard at Continuity Shop (ghoward@continuityshop.com).

We can also help organisation review or create plans so if you need any assistance please contact me via this email or Andrew Sinclair on Andrew.sinclair@glenabbot.co.uk. Our office number is 01738 580580.

Yours sincerely

David Hutcheson Managing Director

M: 07775 793858 T: 01738 580580 E: <u>david.hutcheson@glenabbot.co.uk</u>