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Whiteley Medical: Recommendations for Surface Hygiene with Pandemic Influenza

June 2009

Dear Customers,

The WHO has now declared an Influenza Pandemic. At this time, the Influenza Virus, known as H1N1 or Swine Flu, is known to be circulating in parts of the Australian community. Patients attending hospitals, doctors surgeries, dental surgeries and other medical clinics who exhibit flu like symptoms should be presumed to be infected.

The Influenza Virus is primarily spread via droplets, but it is also known to survive on surfaces for up to 48 hours. Persons with Influenza will exhibit symptoms such as coughing, sneezing, fever, chills and even diarrhea, and will be shedding virus particles for at least one day prior to onset of symptoms and for several days after symptoms have commenced.

Because of the propensity of the virus to survive on surfaces, and to be transmitted via hands which contact contaminated surfaces, it is critically important to maintain high standards of hygiene including surface cleaning and disinfection. Regular use of a TGA registered alcohol hand gel is recommended (BACTOL Alcohol Gel **AUSTR 155397**). A Hospital Grade Disinfectant with approved label claims against Influenza Virus is recommended for surface disinfection.

The Whiteley MEDICAL recommendations for surface hygiene are as follows:

For Surface CLEANING

For surfaces and items potentially contaminated with Influenza Virus containing droplets and salivary material: wipe suspected or potentially contaminated surfaces with either

- a. **Speedyclean Wipes** (Neutral pH Wipes)
– each wipes should be discarded after each use – or
- b. **V-WIPES** (*Hospital Grade Disinfectant Wipes*)
– the wipes should be discarded after each use – and then Disinfect using VIRACLEAN spray or liquid.
The exposure time is 10 minutes.

For Surface DISINFECTION

For surfaces and items potentially contaminated with Influenza Virus: Wipe clean the suspected or potentially contaminated surfaces with either:

- a. **Speedyclean Wipes or V-Wipes** (Hospital Grade Disinfectant wipes):
- b. **VIRACLEAN** – Hospital Grade Disinfectant – Kills Influenza Virus
DISINFECT using VIRACLEAN spray or liquid.
The exposure time is 10 minutes.

VIRACLEAN has proven performance in killing Influenza Virus on surfaces and is entered onto the Australian Register of Therapeutic Goods (ARTG) as AUSTR 69000.

Handwashing: Whiteley Medical recommends **BACTOL Alcohol Gel** [AUSTR 155397] for regular use in healthcare settings.

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Discussion on the risks associated with surface hygiene with Pandemic Influenza Virus

The current “Interim Infection Control Guidelines for Pandemic Influenza” which cover surface hygiene recommendations do not mention the Australian regulatory framework for surface disinfectants. Under the scheme, which is administered by the Therapeutic Goods Administration (TGA), Hospital Grade Disinfectants are subjected to pre-market checks including label claims.

Claims for killing Influenza Virus are checked against the guidelines and may only be allowed following receipt of independent testing which must be conducted in accordance with the methods approved by the TGA. Testing using alternative methods must be validated and shown to be equivalent to the approved methods.

VIRACLEAN is a Hospital Grade Disinfectant with proven performance against a range of Viruses and bacteria including Influenza Virus. The disinfectants recommended in the “Interim” guidelines do not have TGA approved claims for Influenza Virus.

When considering the issues surrounding surface hygiene in the context of a declared Influenza Pandemic, it is important to consider the lessons from past Virus outbreaks of disease. Two other significant virus outbreaks have occurred in the past five years. Surface contamination was an important or critical element in both outbreaks.

The Australian Equine Influenza Outbreak in 2007

Firstly we consider the outbreak of Equine Influenza in Australia in 2007. The Australian Government commissioned a significant inquiry following that Influenza Virus outbreak. The Hon. Ian Callinan, Former Judge of the High Court of Australia was appointed to head the inquiry. His findings about the origin of the outbreak are very significant:

“I find that the most likely way that the virus entered the general horse population is by its escape from infected horses at Eastern Creek Quarantine Station on contaminated person or persons or equipment leaving the Quarantine Station and coming into contact with a horse.”

The significance of this finding is that *the initial spread was via inanimate surfaces* – including possibly clothing or tools – and not via a horse to horse transmission in the first instance. The point here is that the virus survived for a period of time away from an infected animal and was still able to be transmitted to another horse elsewhere and at a later time. Insufficient surface hygiene was attributed as the direct cause of the initial outbreak of the infection from within the quarantine station.

The SARS Outbreak in 2003 in Asia, Canada and Australia

Secondly we consider the SARS outbreak in 2003, which was a respiratory illness caused by a Coronavirus. In the subsequent investigation into the outbreak, which of course spread quite rapidly from Hong Kong to countries such as China and Canada, the primary location was noted to have involved transmission via droplet contamination on environmental surfaces. Surface disinfection was a major element – with hand washing and other hygiene measures – in resolving the outbreak.

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Medical Consumer Choice in Disinfectant Selection

The Australian Regulatory scheme administered by the TGA provides consumers with both certainty and choice in disinfectants. As the scheme set out under TGO 54 is a pre-market scheme, with independent testing regimes, pre-determined and standardised approaches to testing methods, and stability guideline that ensure efficacy medical consumers have a level of certainty over product performance that is unrivalled in the western medical world. No other country, anywhere else in the world requires that a worst case disinfectant test must be conducted for each product, in an independent laboratory and have the data submitted to the TGA for approval with each product being registered under the scheme.

Yet, the current "interim" guidelines deny medical consumers choice in disinfectant. The only product mentioned is chlorine at 1000ppm (mg/L). There are five significant problems with the recommendations made within the current "Interim" guidelines:

1. The Chlorine products mentioned are not approved with claims against any virus.
It is quite unbelievable that in the "Interim" guidelines products are recommended by name, and yet those products are not registered by the TGA to have approved label claims against any virus, let alone Pandemic Influenza Virus. Further, the "Interim" guidelines do not even mention the Australian Regulatory Framework, administered by the very department that authorised the guidelines?
2. If the recommendations made in the guidelines were published by a company they would be strictly illegal and subjected to revision and sanction by the regulator with fines of up to \$1.3 million per offence. How is it possible that an esteemed committee with well respected clinicians got such bad advice on the practical end of their recommendations?;
3. Chlorine is corrosive and impractical.
In a municipal or private swimming pool the recommended level for chlorine disinfection in water is 1ppm (mg/L). By way of comparison, the disinfectant strength recommended for Influenza Virus is 1000 times the strength for a swimming pool. At this level, the product will bleach fabrics, will be corrosive to metals, may react with acids to give off chlorine gas, and should only be used with adequate ventilation. How can medical staff clean a waiting room with 1000ppm of chlorine without destroying the furnishing, the fittings and staining the environment irreversibly. There are also concerns over dilution for usage due to evidence of failure at suboptimal strengths (Kichuchi et al 2007);
4. Chlorine is hazardous and an HSE issue.
Staff using this strength of chlorine will require training on safe use of the product as well as safe disposal. 1000ppm liquid chlorine disinfectant is normally prepared by a 1:50 dilution of 5% liquid bleach, a material classified as a corrosive hazardous substance. Staff using this strength of chlorine will require training on safe use of the product as well as safe disposal. The equipment required to be worn whilst using the product widely is uncomfortable and impractical. The MSDS training alone is a serious requirement under the Occupational Health and Safety Laws in every state in Australia.
Liquid chlorine disinfectants and liquid bleaches are notoriously unstable. In order to reliably achieve the 1000ppm concentration recommended in the guidelines, the user would need to assay the strength of the liquid bleach being used to ensure the quality assurance issues surrounding use of dilutable chlorine disinfection;

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5. The lack of practicality in the guidelines will lead to unintended non compliance that could see “normalized deviance’ develop in response to surface hygiene.

When people get used to “not obeying the rules” they become fairly relaxed and reckless behaviour often follows. It is worse when there is not supervision of the expectations. The lack of supervision reinforces the inappropriate rule avoidance. Use of alternative disinfectant - without Influenza Virus claims - including 70% ethanol have been associated with poor disinfection against viruses on surfaces (Terpestra 2007).

So, with these impractical recommendations for “chlorine only” approach, where people avoid chlorine, there is a serious risk that inappropriate and inadequate cleaning and disinfecting may result, which heightens the risk for surface hygiene failure.;

This could all be avoided with simple changes to the recommendations. Whiteley Corporation has written to the various authorities suggesting simple changes including removal of any reference to product names, and suggesting adherence to the TGA regulatory scheme.

Whiteley Medical Strongly recommends the following surface hygiene be observed:**For Surface CLEANING**

For surfaces and items potentially contaminated with Influenza Virus containing droplets and salivary material: wipe suspected or potentially contaminated surfaces with either

- a. **Speedyclean Wipes** (Neutral pH Wipes)
– each wipes should be discarded after each use – or
- b. **V-WIPES** (*Hospital Grade Disinfectant Wipes*)
– the wipes should be discarded after each use – and then Disinfect using VIRACLEAN spray or liquid.
The exposure time is 10 minutes.

For Surface DISINFECTION

For surfaces and items potentially contaminated with Influenza Virus:

- a. Wipe clean the suspected or potentially contaminated surfaces with either Speedyclean Wipes or V-Wipes (Hospital Grade Disinfectant wipes):
- b. **DISINFECT USING VIRACLEAN SPRAY OR LIQUID.**
The exposure time is 10 minutes.

VIRACLEAN has proven performance in killing Influenza Virus on surfaces and is entered onto the Australian Register of Therapeutic Goods (ARTG) as AUSTR 69000.

Handwashing: Whiteley Medical recommends **BACTOL Alcohol Gel [AUSTR 155397]** for regular use in healthcare settings.

For further information or your nearest distributor of our Australian Manufactured Whiteley Medical Products please call 1800 257 352 or visit the website at www.whiteley.com.au

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For more Whiteley Medical Information including Product Technical Bulletins and Material Safety Data Sheets on every Whiteley product please visit: www.whiteley.com.au