Influenza A H1N1 (Swine Flu of 2009)

The emergence of a new virus tends to become a media circus these days. There are procedures that should be followed, but most of them are what you should already be doing to protect your employees and customers. Additional procedures only become necessary if a mass outbreak occurs at your facility or in your community. You should be prepared, but not overreact. Click here for more information.

This new virus is part of the Influenza A group or family. Specifically it is referred to as Influenza Type A H1N1. When a pathogen has swine or avian in front of it that is referring to the originating host animal. Swine flu means that the virus first infected or was carried by swine, or pigs. In the original form it could not infect humans. The virus then mutated to a form that could infect humans. Since humans have not built up any immunity in the past our bodies are not as prepared and symptoms may be more severe or take a longer time for the body to recognize and develop counter-measures. This present type H1N1 is not any more virulent than the usual annual flu. The World Health Organization identified this strain of flu as novel and alerted health care providers and the public. As always, some people overreact, some under react and some have been, and continue, taking the appropriate action. Hopefully the information here will help you react appropriately.

Influenza viruses are mainly spread by the mist we exhale when coughing or sneezing. Obviously the first defense is to avoid inhaling these airborne viruses. Covering you mouth with a tissue or handkerchief when coughing or sneezing limits the amount of airborne virus. Staying away from infectious people or wearing a respirator, such as the N92 mask, limits what you inhale. A respirator is generally not required unless you are caring for infected people or have someone in your home or office who is coughing and sneezing. Of course people who have depressed immune systems or increased susceptibility due to age or other factors may benefit from wearing a respirator in public.

The second means by which the virus spreads is by contact with surfaces on which the virus resides. The virus gets to surfaces either by contact with human skin contaminated with the virus or from the mist from coughing and sneezing falling on them. Get sputum on you had when sneezing and then use a light switch. Presto... virus for the next person. The influenza viruses may survive on hard surfaces for up to 48 hours and on soft surfaces such as cloth, paper, and tissue for up to 12 hours. Persons who are ill should use a tissue or hankie when they cough or sneeze and dispose of tissues in the trash right after use. Hands should be washed often, especially after coughing or sneezing. Well people should wash their hands often, especially after contact with public surfaces that are commonly touched. These would include restroom fixtures, light switched, door knobs, telephones and grab bars on public transportation. Avoid toughing your mouth, nose and eyes without first washing you hands. Carry disinfecting wipes with you to wipe surfaces you have to touch or put up to your mouth. If you don't like the smell of bleach you can choose from a variety of disinfectants that have no order and little taste.

Hand washing is probably the most important thing everyone can do to prevent a multitude of illnesses. It is not necessary to use a germicidal hand soap. The CDC recommends regular soap and water, used properly. Here are the steps for proper hand washing.

1. Wet hands with running water as hot as you can comfortably stand (at least 100º F), but don't scald yourself.
2. Apply soap.
3. Vigorously scrub hands for 10 - 15 seconds.
4. Rinse thoroughly under running water.
5. Dry completely with a single-use paper towel or air dryer.
6. Use a paper towel to turn off the water and to open the door if in a restroom.

laminated hand washing signs (8-1/2 x 11) are available at no charge to businesses or

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organizations, within reasonable limits.

It is preferable not to use an air dryer. Even if you must use an air dryer, use a paper towel to turn off the water and open the door. Hands free facilities are on the increase as are restrooms without doors, but even a hands-free air dryer blows the germs around.

Cleaning and disinfecting surfaces also helps prevent the spread of the virus, but if you are doing all of the above properly, even contact with dirty surfaces should not make you sick. Regardless, every facility (and home) should clean and disinfect regularly at all times. there are many worse germs than this flu which can be eliminated by proper cleaning and disinfecting.

When it comes to disinfecting hard surfaces, the problem of germs becoming immune is not a problem as it is in killing germs inside the body. If a disinfectant is used properly it kills virtually all of the germs that it is effective against. There are some germs that create spores that are much more difficult to kill than the vegetative form of the germ. There are also some germs which have tougher skins and are more difficult to kill. If a disinfectant is used improperly at a low level it may leave germs which are tougher and can pass on their toughness to future generations of germs. However, when these tougher germs are hit by the correct strength of the disinfectant they will die. This is because disinfectants are more like shooting a machine gun that kills everything in its path, compared to antibiotics which have to slowly strangle only the germs while taking care not to disturb anything else in the body. A perfect example is when chlorinating a swimming pool with a low dose of Chlorine. A tougher strain of algae may grow and require a shock dose of chlorine to bring it under control.

The way to tell if a particular disinfectant will kill the germ you are concerned about is to read the label or technical bulletin of the product. The first thing to look for is the EPA Registration Number. This proves that the EPA has checked that the product really does do what it says on the label. There are three broad groups, bacteria, viruses and fungi, that cause illnesses. In the case of this Influenza you would look first for the words Virucide or Virucidal. A bactricide or fungicide would not do the job here. Most disinfectants will kill all three groups, but may only kill certain members of each group. Next you want a product that is effective against Influenza Type A or A1 or A2. The WHO and the EPA have determined that Type A H1N1 will be killed by products that are proven effective against either A1 or A2.

Once you have chosen your product you must know whether the product is to be used full strength or diluted with water. If full strength, just apply as directed. If it must be diluted, follow the directions carefully. The adage "if a little is good then more must be better" does not apply here. If the product is mixed too strong it may be harmful to your health. If the product is too strong it may be unpleasant to use and therefore will be used sparingly and not be completely effective.

Once the product is mixed and ready to use it is important to follow the directions exactly. If it says to leave the surface wet for 10 minutes that means that if takes 10 minutes for the product to soak through the germs skin and kill them. Wiping the surface dry immediately or using so little product that it evaporates in less than 10 minutes may mean that most, or even all, of the germs were not killed.

If the directions say that visible dirt must be cleaned away before using the disinfectant, then this must be done first. Organic soil load, that's basically visible dirt, cannot exceed 5% for many disinfectants or they begin to lose their effectiveness. For this reason, dirty water must be dumped when it becomes visibly dirty. If you can't see the bottom of the bucket it is definitely time to prepare fresh disinfectant. For this reason, two compartment pails have become popular. Clean disinfectant in one compartment and rinse water in the other. Other systems use separate mops or cloths depending on the situation and the budget. The most difficult task is to allow the amount of time needed for proper cleaning and disinfecting.

Many disinfectants are effective only if the water hardness is not above, for example 500 ppm (parts per million). Note that 1 grain of hardness equals 17 parts per million. If you water is very hard you might have to use a ready-to-use disinfectant that requires not water be added.

Damon Industries has a variety of disinfectants to handle most general and hospital disinfecting needs. All are EPA approved for effectiveness against either Influenza Type A1 or A2. We also provide in-service training for cleaning personnel in hospitals, nursing homes, schools, office buildings, grocery stores, and government & public facilities. Our software can tell you exactly how many man-hours or FTEs are required to properly disinfect your facility. We can design an entire cleaning program, help you select personnel, and train personnel.

For valuable links and up-to-date information on Influenza A H1N1 go to our web pages:

http://damonq.com/influenza A H1N1.htm and
http://damonq.com/H1N1 Links.htm

For more information on how Damon Industries can help you, email us at **flu@DamonQ.com**.