



April 27, 2020

To: All Domestic Employees

From: Pandemic Working Group

Re: **COVID-19: Therapeutic Drugs ~ Meat Processing ~ CDC Symptom List ~ Baseball**

Therapeutic Drugs. We have all read about the quest for a vaccine against COVID-19 to prevent the patient from getting a disease in the future. Beyond vaccines (which we will cover in greater detail this week), another way to attack the coronavirus is through “therapeutic” drugs which use the patient’s own immune system to attack an existing infection. First, a bit of background is in order. As described in a recent article in Scientific American (“Three Ways to Make Coronavirus Drugs in Hurry”), viruses are a cluster of genetic material that integrate into a cell, take over some of its molecular machinery, and use it to make an army of viral copies that go on to infect nearby cells. How do you stop a virus with a therapeutic drug? The three main strategies are: i) alter its reproductive machinery, ii) block the virus from entering a cell or iii) reduce the body’s dangerously overactive response. Interestingly, unlike vaccine development, which may require the use of viral material from infected persons, the development of therapeutic treatments can, and does, involve the use of some of the 20,000 compounds already approved by FDA for human use. According to the Milken Institute, 49 of these therapies are already under clinical trials for COVID-19. One such compound of which you may have read is remdesivir, which was developed several years ago by Gilead and has been shown to shut down replicating machinery of several coronavirus variants. As with remdesivir, the effectiveness of drugs under trial are not yet established for this variant and would not be cures; however, they could give patients’ immune systems a chance to defeat the virus on their own.

Meat Processing. USA Today reports that over 2,200 COVID-19 cases have been confirmed among employees at dozens of pork, beef, and chicken processing plants. Several of those plants have closed and reopened, while two of the largest pork processors – Tyson Foods in Waterloo, Iowa and Smithfield Foods in Sioux Falls, S. Dakota – remain closed indefinitely, representing a 15% decline in capacity since last week, per Steve Meyer of Kerns & Associates. According to the Chicago Tribune, the “shoulder-to-shoulder work involved in cutting and disassembling carcasses, designed to maximize efficiency, made workers vulnerable to catching and spreading” the virus. Further, some of the largest processing plants are in states (such as South Dakota) that have no COVID restrictions. In response to this infection trend, CDC and OSHA just published specific guidance on how to limit contagion at meat processing plants. The issue is still rather unsettled. On the one hand, Tyson Foods just ran a full-page, national advertisement to call attention to the vulnerability of the food chain. On the other hand, some

experts predict a modest increase in prices, no shortage of meat at stores (maybe fewer cuts available) and urge consumers not to panic buy.

CDC List of Revised Symptoms. Using data drawn from healthcare workers in many regions, the Center for Disease Control has issued a revised list of COVID-19 symptoms which we have captured for you in the following pictograph.

Symptoms of Coronavirus
(update from the CDC)

What are the COVID-19 symptoms to watch for?

People with COVID-19 have a wide range of symptoms reported - ranging from mild to severe illnesses.

These symptoms may appear 2-14 days after exposure to the virus:

- Cough
- Chills
- Repeated shaking with chills
- Sore throat
- Fever
- Headache
- Muscle pain
- Shortness of breath or difficulty breathing
- New loss of taste or smell

WHEN TO SEEK MEDICAL ATTENTION:

If you have any of these emergency warning signs* for COVID-19, seek medical attention immediately

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion or inability to arouse
- Bluish lips or face

CALL 911 if you have a medical emergency. Notify the operator that you have, or think you might have COVID-19. Put on a face covering before help arrives.

*List is not all inclusive. Please consult your medical provider for any other symptoms that are severe or concerning you.

If you have questions on any of these matters, please contact either Kelly Willmott (kellyw@amvac.com) or Tim Donnelly (timd@amvac.com)

The Roar of the Crowd. There was a time when baseball players were depicted on cardboard trading cards. As reported in the Wall Street Journal, the Taiwan Chinese Professional Baseball League has turned that paradigm on its head by placing cardboard cut-outs of fans in the stadium seats. Now the players are real, and the fans are fake. This is a first step toward bringing baseball back to that country. As reported, except for an occasional fistfight at the virtual beer concession, the fans are typically well behaved.



If you have any questions or comments on this advisory, please contact either kellyw@amvac.com or timd@amvac.com.