



123 Town Square Place #531 Jersey City, NJ 07310  
TEL: 212-207-3590 FAX: 888.452.8021

New York • Athens • Manila • Beijing • Johannesburg



March 18, 2020

### Coronavirus Infection Update

Dear Future Care Clients,

This bulletin is incremental to previous bulletins and is an update on some miscellaneous issues rather than a complete recapping about the virus.

As of this morning:  
203,529 total cases  
8205 deaths

Death rates are very variable. Countries that are doing a large number of tests will have a lower death rate as they will find more people with less acute illness. The denominator is bigger. As we test more people in the US, the number of cases will skyrocket but the deaths will occur in the same numbers, so the death rate will appear to go down. The death rate remains VERY low under age 60 and up to 16% above 80.

Having worked in the emergency department the last few days, I believe the number of cases is much higher.

We have moved from containment to mitigation and now are looking to flatten the curve – slow the outbreak - distribute the number of cases that will occur over the longest period possible so as not to overwhelm the healthcare system and allow time for development of medications and vaccines.

The only way to do this is through SOCIAL DISTANCING and we all have an obligation to do this regardless of our age or health status. Social distancing refers to the practice of limiting mass gatherings and events, as well as small group congregations. It also involves maintaining distance (approximately 6 feet or 2 meters) from other single individuals when possible. It is a containment technique for “flattening the curve” of the spread of infection. This should be practiced by your crews and your corporate employees. My best guess is that we will be looking at doing this for the next 8 weeks although I anticipate some permanent shifts in society behaviors.

**This is also why we are encouraging no changes in crew for the next 8 weeks. If you have a healthy crew on board and can keep them there, please do so. Keep the replacement crew at home for now.**

#### Testing 101

We have received many questions regarding testing, so please find below a brief primer.

There are 2 types of testing. There is very accurate PCR testing. The doctor or nurse collects the swabs from the back of the nose and throat and sends them to a central lab where the RNA is extracted and tested. This takes 5 to 7 hours once the specimen reaches the lab. The issue is the speed and location of the analyzer and who has been approved to do the testing. Roche has recently introduced and had approved a faster and higher capacity machine for testing for example. The goal is to produce machines that are maximally accurate. Fast and have high capacity and distribute them widely.

The second type is a more rapid bedside test done with IgG and I GM antibodies that patients who have been exposed will form. IgM goes up first. They have needed serum from patients who have recovered to develop these tests. They have a high specificity. If they are positive, they are positive. However, early on the sensitivity is not as high as they need at this point. So early cases will be missed. Some countries are using these for mass screens. we think they will get better over the next few months and it might be possible to deploy these to the ships at some point. Right now, if you had the test, and there are no US approved tests yet to my knowledge, and they tested negative, you would still not know for sure they did not have Covid-19.

Rapid flu tests are available for deployment to the ships if you can find them. The Medical Officer would need to be trained to do the test. You would expose your Medical Officer to the viruses and sick crewmember. There appears to be about a 5% co-infection rate between flu and Covid-19, meaning patients have both.

Therefore, we consider that it is just going to be confusing to have such tests onboard and do not recommend them at this time.

#### **At Risk Locations – Update for screening – very fluid**

China  
South Korea  
Iran  
Italy  
Japan  
France  
Germany  
Spain  
New York  
Oregon  
Washington  
California

#### **Simplification of questions for screening:**

Do you have:

- Fever (subjective or objective)
- Cough

- Shortness of Breath

Note: If your crew do not have these symptoms, but have predominantly sore throat, nasal congestion or diarrhea it is unlikely to be Covid-19

Note: Some patients are presenting with the rapid development of very high fever (103-104) and minimal cough symptoms early on

### **Risk factors for Developing Severe Illness**

- Age > 65
- Immunosuppression
- HIV+/AIDS
- Diabetes
- Cardiovascular disease

### **How to best approach a crew member with respiratory symptoms**

- Wash hands or clean with hand sanitizer
- Put on disposable gloves
- Put on mask (N-95 not required for this type of encounter)
- Put on eye protection – mask or goggles
- Go into room to assess crew member who is already wearing a mask and who has just washed his/her hands
- Assess crewmember – ask questions and take vital signs; assess degree of symptoms and any respiratory distress
- Squirt hand sanitizer on outside of gloves and rub in thoroughly
- Exit room
- Remove and discard eye protection and mask directly into garbage
- Do not fill garbage to the top and do not compress the garbage inside the bag
- Take off gloves from the inside out
- Wash hands or use hand sanitizer thoroughly for 30 seconds – slowly sing Happy Birthday twice
- Keep crew member in isolation until risk is determined

**No Risk** – keep isolated until no fever x 24 hours, wear facemask when out of isolation until no cough

**At Risk** – keep isolated until testing for Covid-19 can occur; stock cabin with fluids; deliver meals outside door; wear gloves and mask when picking up tray and disposing of tray contents; try to use disposable plates, dinnerware, glasses. Wash tray at high temperature. Self-quarantine all close contacts (individuals within 6 feet or sharing any room with the crewmember for a prolonged period).

### **Taking Temperatures**

### **Temperature is defined as 100.4 F = 38 C**

We have been asked about screening crew, vendors, contractors and officials for temperature before boarding. No touch forehead thermometers such as the Braun Digital No-Touch Forehead Thermometer (no particular endorsement) are accurate to within 0.4 F. So someone could measure 100 and still have a temperature. It will certainly pick up someone with a high fever. There are false positives from standing in the sun and hot beverages and false negatives if they are taking ibuprofen and/or acetaminophen. We also suspect you may have difficulty accessing these at this time. A helpful but far from fail proof tool to consider.

### **Pathophysiology**

The virus is an enveloped RNA beta-coronavirus that binds to the angiotensin-converting enzyme-2 receptor, which is expressed in type II alveolar cells within the lungs.

### **Incubation period.**

The incubation period ranges from 1 to 14 days and is typically 4 to 5 days (median 5 days). Incubation periods of up to 24 days have been documented in case reports. 97.5% of patients will develop symptoms by 11.5 days.

**Viral Shedding** – likely starts a day before symptoms or so – one of the reasons for rapid spread. Viral shedding may be prolonged up to 20 days after the person gets well. The impact of this is not yet known.

### **Survival on Surfaces**

This is still under investigation. Most importantly, we have not seen anything that demonstrates survival on cargo or any limitations to cargo transportation loading or unloading. Hot temperatures over about 130 degrees seem to kill the virus. Chlorine products and alcohol >60% in hand sanitizers kill the virus. Survival is likely shortest on copper and copper alloy surfaces and much longer on plastics. This is an evolving topic.

### **Conclusion**

- Continue to screen crew before they leave home
- Continue to screen all parties before boarding
- Minimize or eliminate crew changes and crew movement – keep healthy ships healthier
- Continue to assess all crew who develop respiratory symptoms per protocol
- Practice personal hygiene especially PROPER handwashing
- Sanitize all frequently touched surfaces – handrails, elevator buttons, crew mess, public restrooms – on an aggressive schedule

**IMPORTANT** – if employee or crew experience mild illness just stay home (don't overwhelm the health care system) – there is no reason you have to get tested unless needed for operation of the ship or demanded by port. Just self-isolate. Crew should get tested as needed for logistical and operational reasons or free pratique as needed (see above on how to approach). Access the health care system only if you begin experiencing shortness of breath or have risk factors – but do so EARLY should this occur.

Thank you.

Arthur L. Diskin M.D., FACEP  
Global Medical Director  
Future Care, Inc.

For additional information please contact [physicians@futurecareinc.com](mailto:physicians@futurecareinc.com). To refer a specific crewmember medical incident please continue to email our Contact Center at <firstresponse@futurecareinc.com> .