Summary of Individual Clinical Experiences
of Front-Line Physicians that Take Care of Patients with COVID – 19 Infection
in Wuhan

Risks and Markers of life threatening complications

- Time is important issue for COVID infection treatment.
  Even if you know it, consider that in some patients is hard to stop the progression of the disease.

- Upon experiences from Wuhan, 20% of infected patients have severe conditions (will develop severe complications). Less than 5% of patients will develop ARDS.
  CAVE: consider that these are data from Wuhan, where the quarantine and in-hospital treatment are used systematically. In Europe it might be a different situation -the risk of complications, even life threatening might be higher because many patients stay home without receiving in-hospital treatment and system of quarantine is used less systematically in many countries so far, than in China.

- ARDS is the major cause of mortality in patients with COVID – 19 infection.

- ARDS typically occurs during the second week of infection

- Patients that develop the fever are patients with the highest risk to develop subsequent life threatening complications, such ARDS.

- If the patients will develop fever higher than 38.0 degree of Celsius, the fever needs to be treated as soon as possible – the key for success is to get the patients out of the fever as soon as possible to prevent development of further complications.

- However, it is not recommended to start with anti-fever medication unless the fever is higher than 38.0. Fever is the results of infection and it helps to kill the virus.

- The recommended medication for fever treatment as defined above (temperature 38.0 degree of Celsius and higher) is upon experiences from

Wuhan is Loxoprofen 60mg three times daily (180mg daily total dose), or any kind of non-steroidal anti-inflammatory drugs.
Regarding aspirin use, there are limited experiences, if any, in Wuhan and it is probably better to avoid the use of aspirin due to risk of possible complications, such GI bleeding, etc.

- Also traditional Chinese herbs seem to be very helpful. Please see the Chinese Guidelines for details.

- In patients who will develop fever and the fever is immediately treated successfully by medication suggested above, those patients rarely develop life threatening complications, such ARDS.

  CAVE: consider that intermittently repeated fever implies ARDS (because the inflammation is not repressed)

- The patients that will develop fever, they should not be treated home as per our experience. Cabin hospital is a good option.

- In patients that will develop fever in the first week but the fever is treated successfully immediately – prognosis of these patients seems to be good

- CAVE: continuous fever is marker of bed prognosis.

- No fever means the repressed mostly, but not always. Symptoms and signs are also important. Lymphocytes are also prognostically important. Consider that several patients with mild fever develop ARDS in the second week.

- The treatment strategy in the first week is critical to prevent the complications, particularly ARDS, which usually develops during the second week of infection. However, consider that some patients that are stable during the first week of infection, will developed ARDS quickly in 7 days after diagnosis with treatment.

- In patients, that will develop fever, which is not treated – these patients are on high risk to develop life threatening complications, such ARDS.

Consider that there is no target treatment at all. Fever is one impact sign.

- In patients with untreated fever, the transmission from stable condition to ARDS may develop very rapidly. Rapid and often unexpected onset of ARDS typically occurs during the second week of infection

- It is expected that pathophysiological mechanism of ARDS is over-reaction of immune system to a new type of virus. Consider that some young and healthy patients (even completely asymptomatic!!!) will develop ARDS. Overreaction of immoral system is common. It damages spleen, lymphocytes…

- The key strategy to prevent ARDS is to start with ventilatory support early.

- Patients with COVID infection and 02 saturation 93% or less should be put immediately on ventilation support – even without other symptoms of respiratory failure – because early ventilator support may be effective to prevent development of ARDS. Start with cannual oxygen first – preferred option is nasal high flow oxygen therapy. if not effective, then second step is noninvasive ventilation. If not effective, full ventilatory support is required.
    - CAVE: ventilator and ECMO should be consider earlier, not as the last weapon used in in the very last minute. Consider that those patients that were put on ECMO support as "very last minute treatment" – none of them survived.

Risk of life threatening complications in different populations

• Children fortunately develop life threatening complications very rarely

• Women may develop fever, but despite having fever women less commonly develop ARDS

Use of Anti-virotic drugs and Antibiotics

- Standard anti-virotic drugs such Tamiflu are useless upon experiences from Wuhan. They do not improve symptom and they do not improve prognosis. Currently, Chinese physicians are testing effect of Abidol, the anti anti-HIV drug.

- Antibiotics should not be used routinely for treatment of COVID infection and its symptoms because they may worsen prognosis.

However, patients with cough and sputum and high WBC or neutrophilia, or elevated CRP/procalcitonin may have secondary bacterial infection frequently caused by Mycoplasma pneumonia – in such patients antibioitics are suggested.

Risk of rapid spread of infection

- COVID – 19 infection is a very infectious disease. If anyone get infected, the risk of getting infection for those people who will be in close contact with infected person might be as high as 100%. Example: if someone in the family will get COVID -19 infection, it is almost for sure that all members of the family will get infected also. However, they may stay asymptopmatic or may develop only mild symptoms.

Consider: even people without any fever and completely without any other symptoms still can transmit virus to others, with high transmission rate.

• Very high risk for COVID infection dissemination represent patients with fever. If there is a patient with fever, he/she must be isolated immediately.

Patients with fever represent very strong risk of transmission. They all must be in quarantine immediately. In Wuhan, we quarantine people together, not home.

- Risk of infection dissemination in patients without fever is significantly lower than in patients with fever. Consider that some virus carriers have mild or even no symptom, but still can transmit the disease.

Rrecommendation for Protection of Healthcare Professionals

- Only approved respirators and N-95 masks are effective to protect healthcare professionals against the COVID – 19 infection. Normal masks do not provide proper protection

N95 mask is absolutely necessary for professionals working in red zone. Put surgical mask outside N95.

- It is important to avoid physical contact of healthcare professionals with COVID – 19 patients for those healthcare professionals that do not ware suits. Safe distance is 1.8 meter or more. Healthcare professionals can touch the patients if you are in protective suit and masks

- It is important to wash the hands regularly. Wash hands a lot. Use sanitary lotion many times. Most critical issue for those healthcare professionals that work in the red zone, is to remove the suits properly. Many physicians and healthcare professionals got infected because they tried to remove the suits too quickly. It very important to follow all rules step-by-step during removing the suits, because all suits represents highly infectious material.

Please see also the BBC Interview with Dr. Jiang (Frank) Xie, one of the Front-Line Physicians in Wuhan, presenting Dr. Xie's personal experiences with risks of the COVID – 19 infection. This one of the very few documentary materials from Wuhan that Chinese government approved for international broadcasting.

https://www.bbc.com/news/av/world-asia-china-51660852/coronavirus-on-the-front-line-in-wuhan

If you have the access, please attached BBC video – this is the original report with Dr. Jiang (Frank) Xie as it was broadcasted in TV in the main BBC news. This TV report contains even more important info than the web version of the interview.

Prepared by Dr. Tomas Kara & colleagues based on personal discussions with Front-Line physicians that take care of patients with COVID – 19 Infection in Wuhan.

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