

## **Covid-19 Vaccine Development, Emergency Workflow**

**Da-Yong Lu\* and Ting-Ren Lu**

*School of Life Science, Shanghai University, Shanghai, China*

**\*Corresponding Author:** Da-Yong Lu, School of Life Science, Shanghai University, Shanghai, China.

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### **Abstract**

The coronavirus (Covid-19, SARS-CoV-2) pandemic is the biggest public health crisis since this millennium. To end this public health crisis, vaccine development is the key for Covid-19 restriction. The association between Covid-19 mortality, vaccine development and emergency capability plays key role. Viral diagnosis, pathology, fatality and vaccine development requires useful biomedical and emergency landscape. This editorial highlights this emergency workflow for severe infectious patients.

**Keywords:** *Obesity; COVID-19; Emergency; Viral Vaccine; Evaluative Agenda; Viral Infection*

### **Backgrounds**

The coronavirus (Covid-19, SARS-CoV-2) pandemic is the biggest public health crisis since this millennium [1-8]. It causes a lot of human mortality (approximately 200 million infectious cases) worldwide update. To reduce the infection and mortality rate, Covid-19 vaccine development and emergency framework needs high-quality protocols and emergency workflow. More important, vaccine development is diversified and risky in large population evaluation, validity and application [9,10]. An association between emergency and Covid-19 infection, vaccination and emergency workflow needs to be well understood and groundbreaking. This editorial highlights this medical topic of emergency workflow for viral vaccination and treatment study [7].

### **Covid-19 vaccination and safety**

To develop high-quality viral vaccine, safety issue is indispensable. The pathology pathways leading to human mortality by Covid-19 must be well understood. A number of clinical pathogenesis associated with infection and mortality, like co-morbidity should be exploited in the clinic [11-19]. Several safety concerns should be strengthened in emergency trials. Harmful facts and evidence for new vaccine challenge should be carefully noticed in the clinic. To accomplish this safety issue, patient's health and treatment selection should be considerate for at least two years.

- To achieve survival benefits in vaccination should be well compared.
- The viral diagnosis should be well informative and real-time.
- Molecular or cellular levels of disease deterioration and pathology should be represented in emergency workflow.

### **Emergency insights**

The clinical emergence varies greatly. Apart from pulmonary injury, COVID-19 also affects other human organs-cardiology, gastrointestinal, neuropathology, kidney and others [19-22]. High-quality diagnosis needs to be built as early as possible [23]. Our suggestion is

- Sign notice and quick decision.

- Treatment prepare for co-morbidity.
- Therapeutic combination (oxygen provide and others).

### Future Direction

Following steps are necessity for emergency quality:

- Establishing emergency workflow for most vaccine and treatment study.
- Novel approaches for vaccine development and clinical emergency prepare.
- To invent an excellent therapeutic chart or landscape for viral emergency.

### Conclusion

Vaccine development needs competitive systems, workflow and global monitor. After systematic study, therapeutic promotions of Covid-19 vaccine may help our fight against viral spread, morbidity and mortality in the future.

### Conflict of Interests

None.

### Bibliography

1. Zhu N., *et al.* "A novel coronavirus from patients with pneumonia in China". *The New England Journal of Medicine* 382.8 (2020): 727-733.
2. Ciotti M., *et al.* "COVID-19 outbreak: An overview". *Chemotherapy* (2020).
3. Miranda P and Getty AFP. "Coronavirus pandemic, nature's pledge to you". *Nature* 579 (2020): 471-472.
4. Callaway E. "Should scientists infect healthy people with the coronavirus to test vaccines?" *Nature* 580 (2020): 17.
5. Lu DY., *et al.* "Coronavirus (COVID-19), origin, infectivity, epidemics, therapeutics and global impacts". *EC Pharmacology and Toxicology* 9.3 (2021): 100-107.
6. Callaway E. "Coronavirus vaccines five key question as trial begin". *Nature* 578 (2020): 481.
7. Lu DY. "Covid-19 infection emergency and insights". *EC Emergency Medicine and Critical Care* 5.8 (2021): 35-38.
8. Kebede T., *et al.* "Potential drug options for treatment of COVID-19, a review". *Coronaviruses* 1.1 (2020): 42-48.
9. Randolph HE and Barreiro LB. "Herd immunity: understanding COVID-19". *Immunity* 52 (2020): 737-741.
10. Bull S., *et al.* "SARS-CoV-2 challenge studies: ethics and risk minimization". *Medical Ethics* 1 (2020): 1-4.
11. Lu DY., *et al.* "Type 2 diabetes study, introduction and perspective". *The Open Diabetes Journal* 8 (2018): 13-21.
12. Che JY., *et al.* "Obese treatment, new ideas and avenues". *EC Diabetes and Metabolic Research* 5.4 (2021): 39-43.
13. Brestoff JJR and Artis D. "Immune regulation of metabolic homeostasis in health and disease". *Cell* 161 (2015): 146-160.
14. Putta S., *et al.* "Diabetes mellitus and male aging, pharmacotherapeutics and clinical implications". *Current Pharmaceutical Design* 23.41 (2017): 6321-6346.

15. Che JY, *et al.* "Human obesity and diabetes, is it associated with COVID-19 mortality". *EC Diabetes and Metabolic Research* 4.11 (2020): 1-3.
16. Che JY, *et al.* "How COVID-19 infection associates with cardiovascular emergence". *EC Emergency Medicine and Critical Care* 5.2 (2021): 36-38.
17. Ledford H. "How does COVID-19 kill? Uncertainty is hampering doctor's ability to choose treatment". *Nature* 580 (2020): 311-312.
18. Jainta N, *et al.* "Infection diseases and vaccination in patients with diabetes". *EC Diabetes and Metabolic Research* 3.3 (2019): 91-97.
19. Easton JD, *et al.* "Risk for major bleeding in patients receiving Ticagrelor compared with aspirin after transient ischemic attack or acute ischemic stroke in the SOCRATES study (acute stroke or transient ischemic attack treated with aspirin or Ticagrelor and patient outcome)". *Circulation* 136 (2017): 907-916.
20. Lu DY, *et al.* "Heart and brain stroke, a paramount task for emergency medication". *EC Emergency Medicine and Critical Care* 3.10 (2019): 785.
21. Lu DY, *et al.* "Brain stroke treatment, emergency importance". *EC Emergency Medicine and Clinical Care* 3.11 (2019): 115-117.
22. Naqvi IA and Tazvi SNZ. "The comprehensive appraisal of COVID-19: its clinical panorama from virology till management and beyond". *Coronavirus* 1.1 (2020): 57-72.
23. Lu DY, *et al.* "Cardiovascular emergency, sign notice". *EC Emergency Medicine and Critical Care* 5.5 (2021): 44-46.

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