

# COVID-19: “Front line” and “second line” health professionals

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**Key words:**

- Front line
- Occupational hazards
- COVID 19
- Health Professionals

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Health professionals and especially those that are working in hospitals are the “breakwater” of the endemics or pandemics that affect humanity during the time passes<sup>1</sup>. A small percentage of this professionals who are working in the “front line”, they are aware of all risks they might face, they have been trained to catch up with any special situation and they are usually provided with the equipment they need to protect themselves<sup>2</sup>.

Apart from the above small group, there is a clearly higher percentage of staff working in-hospital but not in “front line”. These “second line” professionals are dealing daily with either undiagnosed victims of virus or patients who although they have been entered hospital as “confirmed cases” and have been cured, they continue to stay in hospital due to problems caused by prolonged hospitalization in ICU.

These numerous, “second line” professionals seem to be more vulnerable to infections comparing with the ones characterized as “front line”<sup>3</sup>.

The outcomes from the first research publications, analyzing the pandemic caused by the recent SARS-CoV-2 coronavirus, seem to be contrary to expectations and are particularly interesting.

A typical example is a study resulted that in a population sample of 138 infected subjects in Wuhan, China, 40 subjects were health professionals working in hospitals. 31 subjects or 78% of these were working in various clinics, 7 subjects or 18% were working in the emergency department, whereas 2 subjects or 5% were worked in the ICU. Tracing of the virus transmission showed that all the above 40 subjects had come in contact with the virus inside the hospital<sup>4</sup>.

The above outcomes make it obvious that the risk of transmitting the virus is higher in health professions coming in contact with the virus, but due to the fact that they do not belong to “front line” staff, they are not provided with the appropriate equipment to protect themselves. Additionally, both the lack of knowledge of patients' history and the possibility of the treated patients or the patients hospitalized in neighboring beds being in the process of developing COVID-19, can also help trigger infections.

It is very interesting that these “second line” professionals are usually older and although they are excluded from “front line” staff with the reasoning that they should not come into direct contact with infected subjects, as they might have other health problems, the studies showed

that they are more at risk than the one of the "front line" professionals.

So, justifiably one can wonder:

1<sup>st</sup> Do the "front" and the "second line" reflect what they represent?

2<sup>nd</sup> Is it indeed safer for vulnerable groups of health professionals to work in the "second line" or not?

#### CONFLICTS OF INTEREST

None.

#### FUNDING

None.

#### REFERENCES

1. Teloniatis S, Tzortzi A, and Behrakis P. "Seasonal Influenza Vaccination Coverage in Greece in 2009 and 2014. *Pneumon* 2017; 30:41-8.
2. Antoniou K, Bolaki M, Bibaki E, et al. COVID19 alert Do we know our enemy? *Pneumon* 2020; 33:25-7.
3. Lai X, Wang M, Quin C, et al. Coronavirus Disease 2019 (COVID-2019) infection among health care workers and implications for prevention measures in a tertiary hospital in Wuhan, China. *JAMA Network Open* 2020; 3:e209666.
4. Wang D, Hu B, Hu C, et al. Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus–infected pneumonia in Wuhan, China. *Jama* 2020; 323:1061-9.