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EDITORIAL

COVID-19. The need of new paradigms of cooperation and risk to health workers

COVID-19. La necesidad de nuevos paradigmas de cooperación y riesgo de los trabajadores de la salud

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The COVID-19 pandemic, if we consider its incidence and mortality, has evolved in a similar way to the Spanish influenza pandemic that occurred at the beginning of the last century.(1) Until the beginning of June 2020, the World Health Organization has already reported more than 6 million confirmed cases and 379 thousand deaths.(2) In Cuba, the epidemic has already passed its peak and has achieved satisfactory transmission control in most provinces. Until June 4, 2 107 cases and 83 deaths were reported in Cuba, which determines a case fatality rate of 3.9 %.

The global strategies for pandemic control differ among countries and regions. Social isolation measures and quarantine are highlighted as a common denominator in all regions. The search for group or herd immunity with limited measures of case isolation has determined a high incidence in the countries and regions that have

implemented it, which has been associated with significant mortality, with special reference to aged populations. Furthermore, stricter isolation of confirmed cases with COVID-19 (symptomatic or not) leads to more effective disease control with less impact on mortality. This model, favored by the Cuban social order, has produced a significant beneficial effect in the elapsed period of the epidemic.

Numerous other measures have been implemented, including contact screening and active case findings through serological or molecular studies. Both aim to the early detection and isolation of symptomatic cases, which is effective in preventing community transmission. At the hospital level, the application of these measures aims to prevent nosocomial transmission and protect health workers.

The COVID-19 pandemic has brought to the fore the need for international cooperation as a vital resource for controlling global problems. The prestige of Cuban health professionals, the demand for health personnel conditioned by the current situation and Cuban health policies have conditioned the request of cooperation for medical assistance and the control of the pandemic in the world. Cuban health professionals who are all members of the "Henry Reeves" Brigade, are currently working in more than 20 countries around the world including developed and underdeveloped countries. The first brigade offering aid to developed countries in Europe, Italy, and Andorra in which the pandemic had very high incidence rates and a significant impact on health systems is highlighted. Until May 31, in these countries, the cumulative incidence of COVID-19 was 992.1 and 385.5 cases per 100,000 inhabitants, respectively. These countries together with Qatar (1973.6 cases x 100 000 inhabitants) have been the ones to which Cuba has provided medical assistance with the highest population incidence rates.[3]

The paradigm of cooperation in solving health problems shared by nations reaches a worldwide priority today and includes key areas of Public Health and Epidemiological Surveillance, the needs of human and material resources, teaching, and research. From this health crisis, new ways of cooperation in the epidemiological surveillance of infectious diseases must emerge. The timely detection of new epidemics and the early warning systems are priority areas for cooperation. In addition to the needs of qualified human resources for medical assistance, the exchange among countries during the current pandemic has included the provision of resources for diagnosis, treatment, equipment, and personal protective equipment. Likewise, the conduction of multinational research to improve knowledge about the disease, its prevention, treatment, and vaccines have been areas of reference for global cooperation. The positive experiences observed should contribute to the design of new systems and procedures at a global level to face future threats for public health.

During previous beta coronavirus epidemics (Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS)), the risk of occupational exposure of health personnel was high, which has been confirmed during the

current pandemic of COVID-19. In the original epidemics, 21 % and 13.5 % of the cases were health workers for SARS and MERS CoV, respectively, related to direct contact with patients in emergency departments and critical care units.[4,5,6] Reports on the current epidemic are variables in terms of the frequency of affected health workers, from frequencies under 3 % to figures of 8 % in different countries.[7,8,9] In China, where frequencies of around 4 % have been reported up to February 20, 2020, 2,055 confirmed workers had been detected in 476 hospitals, although most of them were identified in Hubei province, the original focus of the pandemic.[9]

Risk factors for transmission of COVID-19 in healthcare settings have not been adequately identified even when the training of health personnel, the existence of policies and procedures for prevention, availability of resources, and infection control programs are essential elements. We wish to highlight the training needs of professionals in the area of infection prevention in healthcare facilities with special reference to hand hygiene and compliance with isolation precautions. Likewise, monitoring systems of compliance with these practices with defined goals are required. The recommendation for hand hygiene, according to the World Health Organization campaign, is its compliance in 90 % of the opportunities identified during the observations. Compliance with isolation practices, assessed through observation and the use of checklists, must achieve at least 95 % compliance with special reference for the donning and doffing of personal protective equipment. Also, the monitoring of surface disinfection and environmental hygienic practices with the chemicals recommended by the national infection control program are carried out in health institutions, with special reference to the use of hypochlorite-based solutions for the hospital environment.

In the prevention of occupational exposure, regular monitoring of workers exposed by various methods should be carried out, mainly by serological or molecular tests. In general, the isolation practices of health workers, as a form of prevention of occupational exposure and transmission, do not have a greater impact than the aforementioned measures (monitoring of prevention practices and active screening through laboratory tests); therefore, they should be evaluated for effectiveness and limited indication.

In summary, we must highlight the changing paradigm concerning international cooperation for infection prevention and control. The contribution of Cuban health professionals constitutes a precedent of significant importance at this time of change. On the other hand, it is essential to implement the best evidence for the prevention of occupational exposure to infectious diseases to protect the human resources that constitute the main and most valuable asset of the health system.

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Conflict of interests

The author declare that he has not conflicts of interest.