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Quarantine Vessels and Irregular Migration: New Public Health Measures against SARS-CoV-2 †

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Abstract: During SARS-CoV-2 pandemic irregular migrants coming by sea to Europe were required to observe a period of isolation or quarantine on-board dedicated ferry vessels, converted into protected isolation system according to Technical Guidelines written by the Italian Ministry of Health. Migrants were accommodated according to their health conditions and swab tests results in different color zones. 20 "Ship Missions" were performed with an average operating time of 4.12 months in the sea. 60,086 migrants were hosted (positivity of 7.29%). This integrated management system showed some limitations but positively contributed to better manage irregular migration during the pandemic.

Keywords: quarantine vessels; irregular migration; SARS-CoV-2; Pandemic

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1. Introduction

Every year a large number of migrants by sea come to Europe from low-income and war-stricken countries in Sub-Saharan Africa, Asia and other remote areas, attempting a risky journey by boat to enter the European border [1,2]. Since the COVID-19 pandemic was declared in the year 2020, thousands of irregular migrants have been rescued by the Italian navy from the rough seas off the Sicilian coast, especially on the southern Italian island of Lampedusa. In Italy, the management of irregular migratory flows has always been a complex event in terms of resources, space and access control [3]. In the era of the SARS-CoV-2 pandemic, such complexity in managing illegal migration has increased, also considering the conditions of detention before travel, and poor and overcrowded circumstances to which migrants are subjected in areas beyond the Mediterranean. Indeed, it was necessary to propose new public health measures to tackle the SARS-CoV-2 epidemics and to protect both migrants and the local population from the spread of new emerging infectious diseases. According to the current Italian law, all new arrivals were required to observe quarantine in quarantine facilities in the landscape (tourists and travelers) or on-board dedicated quarantine ferry vessels (irregular migrants) [4,5]. Ferry vessels were converted into reception facilities where migrants could spend a period of isolation or quarantine before entry into reception facilities in the Italian territory. Furthermore, irregular migrants who illegally arrive crossing the Mediterranean Sea mostly come from countries with low or no vaccine coverage and are potentially affected by different variants of viruses [6,7]. The present study aims at describing the role of such interventions in preventing the spread of SARS-CoV-2 [8–10].

2. Material and Methods

From the 17 April 2020 to the 29 May 2022. all entry operations in Italy through landings and transhipments managed by the Ministry of the Interior were monitored and recorded. All irregular migrants who arrive crossing the Mediterranean to the Sicilian coast, have to spend a period of isolation or quarantine on board quarantine vessels in the open sea. The quarantine vessels, structured as a protected isolated system, are a dynamic system, divided into three color zones according to an increasing gradient of risk level: green, yellow and red, designed with clear-cut procedures and health measures to face potential different emergencies and to safeguard both survivors and health workers. Many institutional stakeholders are officially involved: Ministry of Health (Central and Local Units—Air and Maritime Health Authorities—USMAF/SASN), Italian Red Cross, Coast Guard, Maritime companies and Local Regional Health Authorities. According to epidemiological data coming from the national surveillance system, dynamic well-defined health protocols focused on the prevention of SARS-CoV-2 cases based on the current Italian law, as well as on the identification of pre-existing pathologies of survivors, have been implemented on board. Particular attention to the general health needs of migrants through active syndromic surveillance systems and monitoring of the health conditions of migrants was also guaranteed. Precise embarkation and disembarkation procedures, the isolated routes were followed to allow migrants to reach each colored area separately. The first health control on SARS-CoV-2 was made on board just before the embarkation through a swab test performed on all migrants. Based on the results of the swab tests of SARS-CoV-2, both molecular and/or antigenic-rapid according to the different current guidelines, migrants were accommodated in different areas, also considering their nationality, religion, sex and age to prevent the mixing of cultures and to prevent any ethnic conflicts. All data were collected and registered in a database. Positive and negative migrants were isolated and transferred to appropriate colored reserved areas in order to observe isolation or quarantine period. Close contacts were also identified and isolated till a negative final swab test was obtained before the disembarkation. A descriptive analysis of the epidemiological situation in the quarantine vessels related to SARS-CoV-2 in migrants was carried out.

3. Results

During the reporting period, 20 “Ship Missions” were undertaken, with an average operating time/mission in the Mediterranean of around 4.12 months. A total of 60,086 migrants were welcomed and managed in 13 quarantine vessels, some of which were utilized more than once. Out of these, 4.382 tested positive for SARS-CoV-2, 58.60% before the embarkation and 41.4% during quarantine. Generally, a positivity to SARS-CoV-2 of 7.29% of the total population has been observed. Regarding the single quarantine vessel mission, a trend of positivity between 0% to 16.46% was observed. The average time of stay on board was, respectively, 11.73 days for the negative and 22.37 days for the positives.

4. Discussion and Conclusions

To address the issue of converting existing passenger vessels to protected isolated systems with defined structural and functional requirements able to manage irregular migrants coming by sea to our coasts, a Commission was established made up of officers from the Ministry of Health, Technical Maritime Engineers, Ministry of the Interior and Coast Guard on the base of Technical Guidelines written by an Operational Task Force coordinated by the Italian Ministry of Health. Despite several critical issues and limitations that have been registered in the administration of quarantine vessels, this integrated management system has positively contributed to reducing the potential risk of the spread of the virus within the reception system [11–13]. As the data show, even though the incidence of positive cases of SARS-CoV-2 in migrants was quite low at the time of arrival, the poor quality and overcrowded condition of life for all irregular migrants at the destination, would not have allowed them to keep social distancing and other preventive measures, with a consequent increase in positive cases of coronavirus [14–16]. Furthermore, in spite

of the irregular migrants mostly representing a healthy population, more attention to basic health needs and travel-related illnesses (such as traumas, injuries and psychological aspects) should be given through continuous monitoring of the health conditions of migrants after the journey [17–19]. Indeed, a higher quality of primary health care as well as better services focused on their specific health needs must be prioritized and taken into higher consideration [20]. In conclusion, further studies and analyses must be carried out in order to assess the role of new public health innovative measures, such as the aforementioned vessels utilized during the COVID-19 pandemic for the management of irregular migrants as well as their impact on the National Health Service and the community.

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