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XI Seminar - PhD Day

COVID-19: Facing a multi(face)phase pandemic

Virtual Meeting
Organized by the Italian National Institute of Health and
Sapienza University of Rome
September 17 and 24,
October 1 and 8, 2020

ABSTRACT BOOK

Edited by

I. Bellini, S. Buezo Montero, G. Civitelli, A. Di Rocco, V. Perri, L. Besi, F.M. Damato, R. Tittarelli, G. Marchetti, A. Di Pucchio and A. Mazzaccara

ISTITUTO SUPERIORE DI SANITÀ

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llaria Bellini (a), Sara Buezo Montero (a), Giulia Civitelli (a),

Arianna Di Rocco (a), Valentina Perri (a), Livia Besi (b),

Felice Marco Damato (b), Roberta Tittarelli (b), Giulia Marchetti (c),

Alessandra Di Pucchio (d) and Alfonso Mazzaccara (d)

(a) Department of Public Health and Infectious Diseases,

Sapienza University of Rome, Rome, Italy

(b) Department of Anatomical, Histological, Locomotor and Legal Medicine Sciences,

Sapienza University of Rome, Rome, Italy

(c) National Centre for Global Health, Italian National Institute of Health, Rome, Italy (d)Training Office, Italian National Institute of Health, Rome, Italy

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COVID-19 CONTROL: LESSONS FROM THE "PALAZZO PECILE" OUTBREAK IN ROME

Annalisa Rosso (a,b), Pier Angela Napoli (a), Corrado De Vito (b), Paolo Villari (b)
(a) UOC, Tutela degli Immigrati e Stranieri, ASL Roma 2, Rome, Italy
(b) Department of Public Health and Infectious Diseases, Sapienza University of Rome, Rome, Italy

Background. During 2020, Italy has been one of the most affected Countries by the SARS-CoV-2 epidemics in Europe, with 240.436 confirmed cases and 34.744 deaths reported by June 30th. Further to a first emergency phase relying mainly on social distancing measures ("Country lockdown"), a strategy based on timely testing, contact tracing and isolation has been promoted by the Ministry of Health to control the epidemics. We hereby provide a description of the implementation of this strategy to control a SARS-CoV-2 outbreak in a closed community in Rome (a "squat building" located in Piazza Pecile).

Methods. Following the reporting of five cases of SARS-CoV-2 infection in a family living in a "squat" building in Rome, a strategy based on contact tracing, testing of all inhabitants and isolation of positive cases and close contacts was put in place, in close collaboration with local authorities and Non-Governmental Organizations (NGOs). An assessment of the capacity to conduct home isolation in the building was conducted, and those people who were not deemed in the condition to safely isolate themselves at home were relocated to a dedicated COVID-19 facility, along with all positive cases. Active surveillance of symptoms was continuously performed during the 18 days isolation period, to allow timely identification of suspected cases and early hospitalization of positive cases.

Results. A total of 107 building occupants were tested for infection through a nasopharyngeal swab. Twenty-five people tested positive (with an overall attack rate of 23.4%) and were isolated in dedicated facilities. Tracing of contacts outside the building lead to testing 41 additional people, three of which positive for SARS-CoV-2. All but one case developed within family clusters, with a total of six affected families, including nine positive children aged less than 18 (36%). Only seven people developed symptoms of infection, with asymptomatic carriers accounting for 72% of cases. Infections seem to have been driven mainly by symptomatic patients. Fifty-three people were isolated in dedicated facilities, including prior or after hospitalization, while 46 people completed the whole isolation period inside the building. As a result of all measures undertaken, no new infections occurred within the building during the 18 days isolation period.

Conclusion. A control strategy combining timely case identification, contact tracing, isolation based on an assessment of the specific setting, active surveillance of symptoms, based on a strong cross-sectional collaboration with local authorities, NGOs and different sectors of the Local Health Unit ASL Roma 2, lead to an effective control of the SARS-CoV-2 outbreak in a closed cluster within a 18 days' timeframe.