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## **Severe Impact of Covid-19 Pandemic on Breast Cancer Care in Italy: a Senonetwork National Survey**

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## INTRODUCTION

Italy has been the first western country hit by the Covid-19 pandemic, with over 246,000 documented cases and more than 35,000 deaths related to the infection as of July 26<sup>th</sup>, 2020. The first documented case in Italy was reported on February 18<sup>th</sup> 2020, introducing a rapid sequence of events<sup>1</sup>. A few towns near Milan and in Veneto were locked down soon thereafter. Finally, the entire country was locked down on March 9<sup>th</sup>, 2020, with a national quarantine which has severely limited the movement of the entire population except for documented work and health circumstances. Since then, many hospitals have restrained non-emergency admissions and ambulatory services, particularly for non-oncological patients. Despite many medical and scientific reports on the current pandemic, little is known on the effect and magnitude of this health emergency on the care of breast cancer patients.

The Italian National Health System is a public health care provider organized on regional basis, and 73% of total health costs are delivered through the public system<sup>2</sup>. Despite many economic restraints in the last 10-15 years, with the closure of many small hospitals and the decrease of the total number of health employees, the Italian Ministry of health issued a directive in December 2014 committing all regional health services to organize Breast Units (BU) according to a minimum case load of 150 new breast cancer cases a year. For these reasons the regionalized system has developed oncological networks of dedicated units for the multidisciplinary care of women with breast cancer according to the Italian and European requirements.

A national survey was promoted to verify the impact of Covid-19 emergency on the clinical care of women with breast cancer by Senonetwork Italia, a non-profit organization devoted

to support the quality of multidisciplinary breast cancer care. The survey was delivered on April 2<sup>nd</sup>, 2020 to the 133 BU affiliated with Senonetwork. It consisted of 17 questions to be answered by the Clinical Director of each Centre along with the responsible physicians of each specialty of the core team. Data collected were anonymized and exported for statistical analysis. For continuous variables, a Wilcoxon rank-sum test was used to check differences between groups. A p value of less than 0.05 indicated a statistically significant difference. One-hundred (75%) BU, treating 37,678 (70%) of the 54,000 women newly diagnosed with breast cancer in Italy in 2019, participated to the survey. Fifty-eight percent of Centres were located in Northern, 28% in Central and 14% in Southern Italy respectively.

According to the relevant findings of our survey:

- Eighty-eight percent of BU are currently operating within hospitals involved in the treatment of Covid-19 patients;
- The weekly multidisciplinary meeting was discontinued or rescheduled to take place less frequently in 23% of BU and was regularly held through video-conferences in 38%. In 33% of Centres the decision about treatment was restricted to the responsible physicians of the core team in a large room;
- A major decrease (more than 50%) in routine activities was reported for radiology, surgery, medical oncology and radiotherapy in 38%, 22%, 11% and 5% of BU, respectively. In 38% of BU the number of weekly surgical procedures was reduced by 30% or more. Pathology activity was largely unchanged and waiting time of > 30 days reported only in 3% of cases;
- A decrease of availability of operating room time was reported by 74% of BU, and this finding was equally distributed among low and high volume BU (more or less

300 cases operated annually), while there was a trend towards a more limited access for the BU located in the North of the country ( $p= 0.09$ );

- Sixty-six percent of BU reported major modifications of their organization, including the necessity to temporarily merge in-hospital Departments, or to transfer patients or physicians to other facilities;
- While 58% of BU stated that the emergency caused problems which could be addressed, 21% believed that this may impact profoundly on the management of individual breast cancer patients;
- In 35% of BU, personnel were found positive to Covid-19 infection, and in 7% of these cases more than 3 professionals were involved. In 35% of BU one or more health care provider were quarantined since the outbreak of the infection;
- Clinical directors of 79% of surveyed BU responded that they were very or extremely worried about the impact of the pandemic on the organization of the routine activities of the Centres.
- Forty-two percent of BU believed that the emergency impaired access of patients with cancer to the most appropriate treatment;
- Despite all this, the vast majority of women were reported to show an accommodating and understanding attitude towards the difficulties experienced by the Centers.

## **DISCUSSION**

The results of our survey highlight a decrease in the overall performance of the Italian Breast Units due to the Covid-19 pandemic. At the same time, they stress the need to protect both health facilities and specialized personnel in order to return soon to deliver optimal support.

The Covid-19 pandemic is having a dramatic impact on the health care systems worldwide. In this context, optimization of clinical care of cancer patients and re-allocation of human resources and medical supplies represent major issues. At the same time, the benefits of cancer care should be balanced against the risk of patients' exposure to SARS-CoV-2 infection.

A number of recently published reports suggest strategies to accomplish these goals, both in the outpatient and in the in-hospital care setting<sup>3-5</sup>. Specific protocols and guidelines for diagnosis, treatment and follow-up have been proposed for breast cancer patients<sup>6,7</sup>, and several recommendations have been issued by many scientific societies urging clinicians to consider treatment delay or prioritizing health care of women affected by breast cancer. Most recommendations encourage maintaining weekly multidisciplinary team or tumor board meetings, preferably via video conferencing or telephone, delaying treatments of low-grade tumors or commencing neoadjuvant therapies instead of primary surgery when indicated. However, several reports suggest that delaying surgery, or time to adjuvant/neoadjuvant therapies, may have a negative impact on survival<sup>8,9</sup>, or in case of ductal carcinoma *in situ* on the development of an invasive disease<sup>10</sup>.

## CONCLUSIONS

To the best of our knowledge this is the first national report on the real-world impact of Covid-19 pandemic on the management of women with breast cancer. Data indicate a major health issue regarding an adequate and prompt access to treatment, and policy makers should take this into account. If not reversed by appropriate actions, we might face in the next future an increased number of women with advanced breast cancer at diagnosis, with the consequence of a decreased possibility to cure.

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