



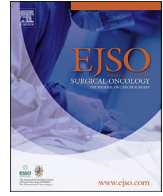
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Contents lists available at ScienceDirect

European Journal of Surgical Oncology

journal homepage: www.ejso.com

COVID-19: The European institute of oncology as a “hub” centre for breast cancer surgery during the pandemic in Milan (Lombardy region, northern Italy) - A screenshot of the first month

**Keywords:**

COVID-19
Breast cancer
Breast surgery

Several major hospitals in Lombardy, Italy, recorded a striking number of admissions for the COVID-19 disease - severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) starting in February 2020. The resulting shortage of medical and nursing staff, the rapid reorganization and repurposing of surgical units into intensive care units, the saturation levels of hospital bed occupancy, and the logistical impossibility of isolating COVID-19 clinical pathways to ensure patient safety throughout the emergency, rendered other hospital activities unsustainable.

At the time of writing, our Breast Unit has been recognized by Italy's Lombardy Regional Authorities as a “hub” center for breast cancer treatment during the pandemic emergency health system reorganization, providing continuity of care for patients whose treatment cannot be delayed. Several months are expected to elapse before the hospitals can revert to routine activities.

We report the experience of the first month of this new epoch in our Breast Surgery Division, with a new “established and evolving” routine.

The use of personal protective equipment is required for every operative procedure performed. In the operating rooms, the anesthesiologists, surgeons and scrub nurses wear FFP2 N95 or FFP3 masks, surgical caps, surgical gowns, double gloves, and protective visors. A system of “smart working” from home has been activated, and hospital attendance is limited to the necessary staff. Patients, staff and visitors must wear a surgical mask and are required to pass through a temperature checkpoint. Patients can access the hospital only for scheduled appointments, and a telephone triage is performed to guarantee safety. Only one visitor per patient can access the hospital ward at an established time, except for outpatients in need of assistance.

Balancing the risks of tumor progression and the risk of exposure to COVID-19 [1], breast surgeries are selected according to the paragraph Priorities for Breast Disease: Surgical Oncology [2]

Abbreviations: SARS-CoV-2, Severe Acute Respiratory Syndrome Coronavirus 2.

and to the table Priorities for Breast Cancer Disease Focused Surgical Oncology [3]. We have been able to ensure high, high/medium and medium priority; briefly, we only schedule for surgery cases whose waiting time has been established to be less than 30 days according to the National Health System regulations (invasive and extensive high-grade in situ breast cancer, surgical complications). Apart from patients for whom neoadjuvant treatment would have been a standard option or elderly patients with comorbidities, our policy has been not to prescribe primary endocrine therapy to delay primary surgery, in contrast with other experiences [4].

Intraoperative evaluation of surgical margins, retroareolar tissue, and sentinel nodes is performed to prevent the risk of reintervention but only when strictly necessary, to protect the pathology staff from risks.

Staff meetings and multidisciplinary case discussions are organized as video conference calls or e-mail.

Surgical clinical studies can be continued if no additional hospital appointments for patients are required.

Outpatient clinic activity is limited to urgent referrals, newly diagnosed breast cancer cases, recurrences, necessary postoperative appointments (i.e. drain removal). Telemedicine is employed for postoperative oncological and radiotherapeutic indications and an official report sent by e-mail.

According to the regional regulations, private practice is suspended, and appointments are guaranteed to patients with a referral from their General Practitioner. Patients can still be covered by private insurance for surgical treatment to access private facilities.

From 9th March 2020, when the government imposed a national quarantine, we considered four weeks of breast surgery activity. We performed 370 interventions, with a 20% increase compared to the same four weeks in 2019. The number of patients from Lombardy doubled compared to that from the same period in 2019. An overall reduction of 87% was recorded in breast surgery outpatient clinical activity, with only 274 accesses compared to 2020 accesses in 2019 (an 84% reduction of extra-regional patients and a 42% reduction of patients from Lombardy). A total of 44 patients already scheduled for surgery in six other Breast Units were transferred to us by direct regional request.

So far, we have yet to report any COVID-19 affected patients among our admissions. Only one case was detected and isolated at home after pre-admission. Two of our breast surgeons were found to be infected from external sources, and no infections have been detected in our Unit two weeks after their quarantine started.

Declaration of competing interest

The authors declare that they have no conflict of interest.

Acknowledgments

The authors thank Alfonso Lorusso for data processing and William Russell-Edu for language editing. This work was partially supported by the Italian Ministry of Health with Ricerca Corrente and 5x1000 funds.

References

- [1] The Lancet Oncology. COVID-19: global consequences for oncology. *Lancet Oncol* 2020 Apr;21(4):467.
- [2] <https://www.esmo.org/guidelines/breast-cancer/breast-cancer-in-the-covid-19-era>. [Accessed 11 April 2020].
- [3] https://www.nccn.org/covid-19/pdf/The_COVID-19_Pandemic_Breast_Cancer_Consortium_Recommendations_EXECUTIVE_SUMMARY.pdf. [Accessed 11 April 2020].
- [4] https://www.danafarber.org/uploadedFiles/Pages/For_Patients_and_Families/Care_and_Treatment/Coronavirus_COVID-19_Information/breast-cancer-treatment-and-covid-19.pdf. [Accessed 11 April 2020].

Elisa Vicini*, Viviana Galimberti, Paola Naninato, Anna Rita Vento
Division of Breast Surgery, European Institute of Oncology IRCCS, Via Ripamonti 435, 20141, Milan, Italy

Sabrina Kahler Ribeiro Fontana
Division of Breast Surgery, European Institute of Oncology IRCCS, Via Ripamonti 435, 20141, Milan, Italy

Universidade Federal do Rio Grande do Sul (UFRGS), Av. Paulo Gama, 110 Secretaria de Comunicação Social - 8º andar - Reitoria - Farroupilha, Porto Alegre, RS, 90040-060, Brazil
E-mail address: Sabrina.KahlerRibeiroFontana@ieo.it.

Paolo Veronesi
Division of Breast Surgery, European Institute of Oncology IRCCS, Via Ripamonti 435, 20141, Milan, Italy

Faculty of Medicine, University of Milan, via Festa del Perdono 7, 20122 Milan, Italy

E-mail address: paolo.veronesi@ieo.it.

* Corresponding author.

E-mail addresses: elisa.vicini@hotmail.it (E. Vicini), viviana.galimberti@ieo.it (V. Galimberti), paola.naninato@ieo.it (P. Naninato), annarita.vento@ieo.it (A.R. Vento).

15 April 2020

Available online 24 April 2020