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Letter to the Editor

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Management of Breast Cancer Patients during the COVID-19 Pandemic in Northern Italy

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Dear Editor,

As you may be are aware, Northern Italy has been the most affected region by the initial wave of SARS-CoV-2 infection which hit the country in February 2020. This letter describes the main organizational changes in our Breast Center (diagnosis, surgery, medical treatment, radiotherapy and other services) on the basis of tumour biology, disease stage and the presence of co-morbidities in breast cancer (BC) patients. These changes were not free of errors but represented new opportunities to work as a team in order to achieve the usual goals in a continuously changing scenario. We adopted some difficult decisions, balancing the risk of BC progression against the risk of infection, and established measures to reduce the risk of transmission to a vulnerable population such as the oncological one [1]. Such measures started even before the publication of recommendations and were gradually modified with accumulated experience. This experience could be of help to withstand the second expected wave of this pandemic not only to our centre but also to the international medical community committed to the management of BC patients.

Some of the measures taken are listed below:

- Pre-screening by telephone to identify patients with suspicious symptoms of SARS-CoV-2 infection and to avoid their access to the hospital.
- Attention to social distancing, washing hands and wearing a mask inside the hospital [2].
- Mammography-based population screening and risk-adapted breast screening programmes for asymptomatic subjects (BRCA carriers) were suspended in accordance with international recommendations [3].
- Unlike other centres, we did not notice fewer referrals from general practitioners for suspicious lesions [4].
- In fact, subjects with lesions giving rise to the suspicion of BC underwent regular investigations.
- We adapted treatment selection criteria by redefining clinical priorities on the basis of multidisciplinary discussions in early March. This was subsequently supported by the published literature concerning cancer care and risk/benefit ratios [5–8].
- Treatments and their timing were redefined during online multidisciplinary tumour board meetings on the basis of tumour biology with the aim of distinguishing patients requiring immediate treatment from those whose treatment could be delayed.
- Two main scenarios were considered for operable cases:

– Patients requiring upfront surgery, with 3 different priority levels (Table 1).
– Patients requiring neoadjuvant treatment (aggressive tumour biology such as triple-negative or HER2-positive lesions, or locally advanced luminal tumours).

- As recommended by guidelines [5–8] and reported from other experiences [9], our policy was to carry out surgical treatment in all patients in which alternative

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Table 1. Selection criteria for urgent cases (priority A <4–5 weeks)

Selection criteria	Patients operated from March 24 to May 25
Selection criteria for urgent cases (priority A <4–5 weeks)	
End of neoadjuvant treatment[a]	6
High-risk cases with aggressive tumor biology for whom chemotherapy is contraindicated or was refused	4
Patients <70 years with luminal type B lesions where final pathology report is needed for further treatment decisions	25
Triple-negative disease or HER2-positive <1.5 cm (T1N0)	5
Patients with extended or comedonic G3 in situ carcinoma with higher probability of invasive disease	12
Short interval (<48 months) locoregional recurrences	4
Delayed procedures (priority B <8–12 weeks) with the possibility of alternative systemic upfront treatment	
Patients <70 and >70 years with cT1N0 luminal A disease[b]	10
Patients >70 years with luminal A and B disease (<T3 N0)[b]	2
Luminal disease in patients with important comorbidities who may require postoperative critical care[b]	3
Long-interval (>48 months) locoregional recurrences (<rT3 N0)[b]	
Deferred interventions due to low prognostic risk (priority C): within 6–12 months	
Low/medium degree AND/or small DCIS	0
Contralateral prophylactic surgery (in case of cancer) and bilateral (in the absence of cancer) in women carrying BRCA mutation	0
Interventions for benign lesions (fibroadenoma, likely benign nodules, etc.)	0

[a] Treatment of choice in triple-negative or HER2-positive lesions >1.5 cm or luminal type B >2 cm and/or N1 associated with high proliferation index (>20%). [b] Postmenopausal women can receive hormonal therapy and further delay surgical time.

treatment could not be done (for example, in extensive carcinomas in situ, in young patients in whom it was not possible to define in advance whether adjuvant chemotherapy would be necessary, and in patients who have completed neoadjuvant chemotherapy or with progression of disease during neoadjuvant chemotherapy).

- Selection criteria were weighed against the risks of anaesthesia and infection.
- Outpatient surgery was introduced whenever possible.
- These activities were coordinated by a case manager nurse, who was present at all times.
- Complex breast reconstructive surgery (autologous tissue flaps) was reduced in order to decrease the risk of complications.
- Systemic treatments continued as usual:
  - Neoadjuvant or adjuvant treatments were guaranteed adequate timing (2–3 weeks after diagnosis and 4–5 weeks after surgery, respectively), including the continuation of adjuvant trastuzumab.
  - Increased use of prophylactic growth factors to decrease the risk of neutropenia.
  - Steroid use was limited or reduced to decrease the risk of immunosuppression.
  - In accordance with international guidelines, adjuvant endocrine therapies in pre- and post-menopausal women remained unchanged as they do not increase the risk of immunosuppression.
- Preoperative hormonal treatment was proposed to patients with hormone-responsive tumours awaiting priority B surgery [10].
  - In frail patients, their general practitioner was contacted in order to coordinate therapy, monitor side effects and avoid hospital admission.
  - Very frail patients aged >80 years received hormonal treatment alone, with adequately long-lasting responses and few side effects.
- Radiotherapy was guaranteed:
  - For patients who had already started treatment.
  - Hypofractionation was also preferred in patients with an indication for post-operative radiotherapy after breast conservation (e.g., 40 Gy in 15 fractions over 3 weeks) [11, 12].
  - Radiotherapy could be delayed in the case of patients at low or very low risk (luminal A, DCIS) for 3–4 months after surgery.
  - Elderly patients at low risk of recurrence were advised to avoid radiotherapy.
- Six- and 12-month follow-up examinations were carried out in the form of an electronic medical record-assisted phone call [13].
- Hospital admission was guaranteed if disease progression was suspected on the basis of reported symptoms or altered diagnostic test results (mammographic and US follow-up were regularly carried out).
- Telemedicine was used to ensure nutritional and psychological support.

- Preservation of fertility services were temporarily suspended, but the young patients receiving chemotherapy were treated with the addition of LHRH analogues in order to reduce gonadal damage.

We will continue to use telemedicine as a means of carrying out pre-screening assessments for symptoms of COVID-19 before allowing access to any hospital service, for monitoring treatments and side effects and for providing information and communication or contacting via chat or video-chat. For this purpose, we are developing a smartphone/tablet app to be delivered to patients. A secondary problem we feel compelled to report was our inability to release official, anticipated communication to the community and patients about our organizational changes, an omission that could easily be solved by publishing official communications via an app on their smartphone.

Managing BC patients in the context of the SARS-CoV-2 outbreak has been an enormous challenge, teaching us lessons that will help us cope with future events with greater confidence.

We have minimized the risk of contagion by avoiding unnecessary access to the hospital, ensuring essential diagnoses and therapies (surgical, medical and radiotherapy). Elderly and/or patients with luminal A tumours received hormonal treatment alone with excellent results; this alternative strategy will be promoted to continue in regular clinical practice except at the onset of ulceration or local progression.

We will take advantage of the organizational changes implemented during the first wave in order to improve our response further and allow us to withstand a second wave while continuing to offer BC management.

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Statement of Ethics

The research has been carried out within an appropriate ethical framework and according to internationally accepted standards for research practice. Patient informed consent was acquired for the treatments carried out but not for organizational changes related to the particular emergency situation.

Conflict of Interest Statement

Dr Ferro has received speaker honoraria from Eli Lilly, Novartis and Pfizer. Orazio Caffo has served as advisor or speaker for Astellas, Astra Zeneca, Janssen, Sanofi and Pfizer. All other authors have no conflicts of interest to declare.

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Author Contributions

A.F., P.C. and G.M.G. significantly contributed to the study conception and design. A.F., M.P., C.F., P.C., S.M. and M.C. analysed and contributed to the interpretation of data. C.A.G.-E., O.C. and G.M.G. significantly contributed to critical revision of the manuscript for important intellectual content and final approval of the version to be published.

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