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negative hormone receptors and dual anti-HER2 treatment. Although overall survival rates were not significantly different between arms, patients who reached pCR with L + T therapy were nearly doubled compared to the patients in the single agent arms. Additional exploratory analyses will be presented.

Conflict of interest: Ownership: AM declares that she is a Novartis employee.

Advisory Board: CS has served as consultant, participated in advisory boards or received travel grants from AstraZeneca, Celgene, Daiichi Sankyo, Eisai, F. Hoffmann-La Roche Ltd, Genomic Health, Merck, Sharp and Dohme España S.A., Novartis, Odonate Therapeutics, Pfizer, Philips Healthwork, Pierre Fabre, prIME Oncology, Puma, Synthion and Sanofi Aventis. EdA received honoraria and/or advisory board from Roche/GNE, Novartis, Seattle Genetics and Zodiac travel grants from Roche/GNE and GSK/Novartis. VM received speaker and consultancy honoraria from: Amgen, AstraZeneca, Celgene, Roche, Teva, Tesaro, Myelo Therapeutics, MC received Consulting/Advisory role honoraria from Novartis, Pfizer, OBI Pharma, Pierre Fabre, PUMA, Celldex, AstraZeneca. SDC reports honoraria and advisory board from Novartis and Pierre-Fabre outside the scope of this work. MPG received consultancy honoraria from: AstraZeneca, Camel-IDS, Crescendo Biologics, Debiopharm, G1 Therapeutics, Genentech, Huya, Immunomedics, Lilly, Menarini, MSD, Novartis, Odonate, Periphages, Pfizer, Roche, Seattle Genetics. JH declares personal financial interests (in the form of scientific consultancy, speaker honoraria, research funding and/or travel expenses) with Lilly, Roche, Pfizer, AstraZeneca, MSD, Celgene Elisa, Abbvie, Hexviv, Daiichi. Board of Directors: MPG is a Board Member (Scientific Board) of Oncolytics.

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PROFFERED PAPER SESSION
Measuring Impact of COVID-19 on Breast Cancer Care

24 Effects of cancer screening restart strategies after COVID-19 disruption
L. Kregting1, S. Kaljouw1, L. de Jonge1, E.E.L. Jansen1, E.F.P. Peterse1, E.A.M. Heijnsdijk1, N.T. van Ravesteyn1, I. Lansdorp-Vogelaar1, I.M.C.M. de Kok1, P. Cottu1, G. Giuliani1, A. Porcu1, P. Piana1, G. Deiana1, A. Fancellu1, V. Sanna2, C. Piredda1, L. Ariu1, G.Q. Piana1, G. Deiana1
1University of Sassari Inst. of Clinica Chirurgica, Dept. of General Surgery, Sassari, Italy; 2AUO Sassari., Unit of Medical Oncology, Sassari, Italy

Background: Many breast cancer screening programmes were disrupted due to the COVID-19 pandemic. This study aimed to estimate the effects of four restart strategies after the disruption on screening capacity and cancer burden.

Materials and methods: The Microsimulation Screening ANalyses breast cancer model (MISCAN-Breast) was used to simulate restart strategies for breast cancer screening. The model estimated required screening capacity, breast cancer incidence, and breast cancer mortality after a screening disruption of six months. Four restart strategies were simulated varying in population affected, duration of effects, and stopping age. Similar modelling was performed for cervical and colorectal cancer screening.

Results: The impact of the disruption heavily depended on the restart strategy. Immediately catching-up on missed screens after the disruption was estimated to lead to 0.13 additional breast cancer deaths per 100 000 women between 2020 and 2030 compared to undisrupted screening (table 1). This strategy minimised the impact of the disruption, but also required a surge in screening capacity. Delaying screening, resulting in one less screen for a quarter of the women, required the least capacity, but also had the largest impact on incidence and mortality (2.35 additional deaths per 100 000 individuals between 2020 and 2030 compared to disrupted screening). A scenario with delays in screening, but still offering all screening rounds gave the best balance between required capacity, incidence, and mortality. The effects for cervical and colorectal cancer screening followed similar patterns, but the effect sizes were smaller.

Table 1 | Cumulative breast cancer mortality per 100 000 individuals compared to undisrupted screening for four restart strategies

| Restart strategies | Delaying all screens, resulting in one less screen for 1/4th of the women | Delaying all screens, except for first screening rounds | Delaying all screens and increasing the stopping age | Immediately catching-up on missed screens after the disruption |
|-------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-----------------------------------------------|
| 2020              | 0.02                                           | 0.02                                           | 0.02                                           | 0.01                                          |
| 2021              | 0.10                                           | 0.10                                           | 0.10                                           | 0.11                                          |
| 2022              | 0.26                                           | 0.25                                           | 0.26                                           | 0.08                                          |
| 2023              | 0.44                                           | 0.42                                           | 0.42                                           | 0.10                                          |
| 2024              | 0.66                                           | 0.61                                           | 0.61                                           | 0.12                                          |
| 2025              | 0.93                                           | 0.85                                           | 0.84                                           | 0.14                                          |
| 2026              | 1.18                                           | 1.06                                           | 1.04                                           | 0.14                                          |
| 2027              | 1.42                                           | 1.26                                           | 1.21                                           | 0.14                                          |
| 2028              | 1.72                                           | 1.51                                           | 1.43                                           | 0.14                                          |
| 2029              | 2.00                                           | 1.71                                           | 1.61                                           | 0.15                                          |
| 2030              | 2.35                                           | 1.98                                           | 1.85                                           | 0.13                                          |
| 2022              | 5.35                                           | 3.93                                           | 2.98                                           | 0.10                                          |
| 2025              | 7.99                                           | 4.74                                           | 3.16                                           | 0.08                                          |
| 2060              | 10.27                                          | 4.71                                           | 2.84                                           | 0.02                                          |

Conclusions: The strategies with the smallest loss in health effects were also the most burdensome for the screening organisations. Which strategy is preferred depends on the organisation and capacity of the breast screening programme in a country.

No conflict of interest.

25 The COVID-19 outbreak may be associated to a reduced level of care for breast cancer. A comparative study with the pre-COVID era in an Italian Breast Unit
A. Fancellu1, V. Sanna2, C. Piredda1, L. Ariu1, G.Q. Piana1, G. Deiana1, P. Cottu2, G. Giuliani1, A. Porcu1, 1University of Sassari Inst. of Clinica Chirurgica, Dept. of General Surgery, Sassari, Italy; 2AUO Sassari., Unit of Medical Oncology, Sassari, Italy

Background: The recent COVID-19 pandemic has caused profound changes on the health-care systems as well as deleterious repercussions on the care of patients with cancer. In this comparative study, we sought to evaluate the effects the COVID-19 pandemic on the surgical management of breast cancer in a Breast Unit belonging to an Italian region with a low incidence of COVID-19 infection.

Methods: Eighty-three patients were included, of whom 41 received surgery during the heights of the pandemic (Group A-operated on in March and April 2020), and 42 during the same period (March-April) of the year 2019 (Group B). Clinicopathological characteristics and surgical outcomes were compared between the two groups.

Results: There were no significant differences in the baseline characteristics of the two groups in regard to age (p = 0.62), tumour size (p = 0.25) grade (p = 0.27), histology (p = 0.45), positive lymph nodes (p = 0.35), ER positive status (0.35). Waiting time for surgery was slightly longer in Group A (49.11 vs 46.39, p = 0.38). Patients receiving immediate breast reconstruction were significantly less in patients of Group A (p < 0.01). Use of sentinel node biopsy was similar in the two groups (p = 0.84). Hospital stay was longer in patients of Group B (p = 0.008). Use of regional nerve blocks was lower in the Group A (p < 0.001).

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Conclusions: Patients operated on during the height of pandemic were less likely to receive immediate reconstruction and regional nerve blocks. Health-care services should develop reliable and useful measures aiming to maintain the highest standards of care in case of new pandemic, and extraordinary events in general.

No conflict of interest.

The impact of the COVID-19 pandemic on quality of life, physical and psychosocial wellbeing in breast cancer patients – a prospective, multicenter cohort study

C. Bargion1,2, M. Batenburg1, L. van Stam1, D. Mink van der Molen1, I. van Dam1, F. van der Leij4, I. Baas4, M. Emst5, W. Maarse6, N. Vermulst7, E. Schoenmaeckers8, T. van Dalen9, R. Bijlsma6, D. Young-Afat10, A. Doeksen2, H. Verkooijen3, UMBRELLA study group. 1University Medical Centre Utrecht, Division of Imaging and Oncology, Utrecht, Netherlands; 2St. Antonius ziekenhuis, Department of Surgery, Utrecht, Netherlands; 3University Medical Centre Utrecht, Department of Radiation Oncology, Utrecht, Netherlands; 4University Medical Centre Utrecht, Department of Medical Oncology, Utrecht, Netherlands; 5Alexander Monro Clinics, Department of Surgery, Bilthoven, Netherlands; 6University Medical Centre Utrecht, Department of Plastic- Reconstructive and Hand surgery, Utrecht, Netherlands; 7Rivierenland Hospital, Department of Surgery, Tiel, Netherlands; 8Meander Medisch Centrum, Department of Surgery, Amersfoort, Netherlands; 9Diakonessenhuis, Department of Surgery, Utrecht, Netherlands; 10Amsterdam University Medical Centre- location VUmc, Department of Plastic- Reconstructive and Hand surgery, Amsterdam, Netherlands

Background: The COVID-19 pandemic, and the resulting measures, are impacting daily life and medical management of patients with breast cancer. We evaluated to what extent these changes have affected quality of life, and physical and psychosocial wellbeing of patients (being) treated for breast cancer.

Materials and methods: This study was conducted within the prospective Utrecht cohort for Multiple BREast cancer intervention studies and Long-term evaluation (UMBRELLA). Shortly after the implementation of COVID-19 measures, extra questionnaires were sent to 1595 cohort participants, including standard quality of life (EORTC) questionnaires. Patient-reported outcomes (PROs) were compared to the most recent PROs collected within UMBRELLA before COVID-19. The impact of COVID-19 on PROs was assessed using mixed model analysis, adjusting for confounders.

Results: 1051 patients (66%) completed the questionnaires; 31% (n = 327) reported a higher threshold to contact their general practitioner amid the COVID-19 pandemic. A significant deterioration in emotional functioning was observed (82.6 to 77.9, p < 0.001), and 505 (48%, 95% CI 45–51) patients reported moderate to severe loneliness. Small improvements were observed in QoL, physical-, social- and role functioning scores. In the subgroup of 51 patients under active treatment, social functioning strongly deteriorated (69.8 to 5.0, p = 0.03).

Conclusion: Due to COVID-19, patients (being) treated for breast cancer are less likely to contact physicians, and experience a deterioration in emotional functioning. Patients undergoing active treatment report a strong drop in social functioning. One in two patients reports (severe) loneliness. Online interventions supporting mental health and social interaction are needed during times of social distancing and lockdowns.

No conflict of interest.