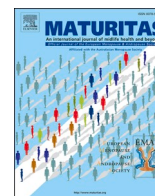




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## Editorial

## The impact of the pandemic on gynecological oncology practice: Three years later



## ARTICLE INFO

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The outbreak of severe acute respiratory syndrome coronavirus 2 infection and its related disease (COVID-19) has needed a rapid healthcare response to face the worldwide emergency and define strategies to lead healthcare systems to redesign their clinical services, to reallocate available resources and to accommodate changes in treatment priorities. Pragmatic modifications to the gold standard of care were suggested by national healthcare organizations, based primarily on expert opinion and review of pre-existing evidence of benefit.

Gynecological oncology practice epitomizes the effects on different stages of care: cancer screening programs, diagnostic assessments, new strategies to perform consultations, surgical staging or maximal effort cytoreductive surgery, adjuvant or neoadjuvant treatments. Changes of management have been chosen with unknown future risks.

The decision to interrupt all cancer screening programs may have been caused by lockdown, people's fear of the infection, reduction of nonurgent medical treatment and care, limited access to in-person medical examinations, and the reorganization of hospital departments. Optimizing cervical screening has involved finding a set of recommendations -on the target age range, screening interval, and clinical follow-up after positive screens – and has reduced the risk of disease with a positive impact on healthcare resources and quality of life. In several cases, cervical cancer screening could prevent cancer onset by identifying and managing precancerous lesions. The stopping of cervical cancer screening could delay early-stage diagnosis, causing progression to advanced stages. Furthermore, this could be associated with increased avoidable cancer deaths and with increased workload for medical personnel and costs for the healthcare system [1].

While there is a standardized screening program for cervical cancer, ovarian cancer and endometrial cancer are diagnosed accidentally, during routine consultations or after symptom onset.

Changes in diagnostic pathways aim to simplify the process, thereby reducing hospital attendance and demand on clinical time. Greater flexibility was incorporated into triaging suspected cancer referrals from primary care, introducing telephone or virtual assessment without the

need for clinical examination followed by direct investigation with ultrasound and hysteroscopy, limiting or postponing visits to a referral cancer center, with a preference for local hospitals.

A retrospective multicentric Italian study [2] showed that during the COVID-19 pandemic, endometrial cancer, which is commonly detected early, was more likely to be treated in advanced-stage disease and there was a higher proportion of patients treated with adjuvant therapy among those treated with surgery during the COVID-19 pandemic. Postmenopausal bleeding is a common symptom of endometrial cancer: nevertheless, the reluctance to report symptoms, the fear of the infection, the reduction of nonurgent medical treatment and the reorganization of hospital departments might explain the lower detection rates of early-stage endometrial cancer.

However, the total number of endometrial cancer patients treated per year has decreased during the COVID-19 pandemic from the level before its outbreak. A bias might be explained by the decision of patients with more favorable disease to be treated in more low-volume, peripheral hospitals or by the international recommendation to consider non-surgical options for low-risk patients, including systemic hormonal therapy or intrauterine devices.

The CovidSurg-Gynecologic Oncology Cancer study reported a significant delay (>8 weeks) in surgery, particularly in patients with ovarian cancer [3]. The pandemic has particularly challenged surgery, particularly for maximal effort cytoreductive surgery or secondary debulking surgery, where treatment can be life-prolonging but not curative [4]. Surgeries were being delayed or replaced by systemic or palliative care treatments, which had previously been associated with poorer outcomes. COVID-19 testing should occur prior to surgery; where a patient tests positive, their treatment should be delayed by 2–4 weeks to allow recovery owing to the heightened morbidity from perioperative COVID-19 infection. This delay was associated with adverse outcomes, disease progression and death. Primary or interval debulking surgery for advanced ovarian cancer was delayed during the initial phase of the pandemic, when the spread of the virus was completely unknown. The

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initial concerns regarding surgical morbidity and the reorganization of healthcare resource due to a reduction of intensive care space, reserved for patients with COVID-19, caused the modification of surgical treatment with neo-adjuvant chemotherapy. Patients with recurrent disease and needing secondary debulking were considered a lower surgical priority and candidates for chemotherapy. Surgeons researched several measures to limit the time of surgery and the duration of hospital stay, such as the laparoscopic approach (if possible) and enhanced recovery pathways. Evidence suggested that the risk of SARS-COV-2/COVID-19 transmission in operating rooms during laparoscopy for gynecologic surgery is low and this minimally invasive approach could be continued during the pandemic. Nevertheless, the modifications of surgical approaches had influenced the overall morbidity profile and appeared to be equivalent to the historic surgical morbidity data outside of the COVID-19 pandemic. COVID-19 vaccination was recommended for all women diagnosed with cancer or undergoing treatment: it could significantly reduce the risks of infection and the effect of symptoms [3].

Continuing the evaluation of the impact of the COVID-19 pandemic on cancer care, it was necessary to modify the planning of adjuvant treatment. To reduce the frequency of outpatient clinic appointments, radiotherapy guidelines included the use of hypofractionated schedules (increased dose per day and fewer fractions) to provide equivalent doses with fewer hospital attendances, and simplifications of technique [5]. The hypofractionation reduced the number of hospital visits and treatments. The American Brachytherapy Society suggested that brachytherapy procedures should not be delayed for cervical cancer patients without COVID-19 symptoms [6]. Self-quarantine at home and follow-up teleconsultations for cancer survivors were strongly recommended and continued regular contacts with cancer survivors were preferred, postponing non-essential in-person assessment whenever possible.

The reorganization of healthcare settings and fear of COVID-19 exposure resulted in delays in diagnosis and treatment that may lead to a short-term drop in cancer incidence followed by an uptick in advanced-stage disease and increased mortality. However, quantifying the consequences of the pandemic will take several years because of the lag in dissemination of population-based surveillance data. It is imperative to improve risk-based strategies to recover, preserve, and implement healthcare services during a global crisis.

#### Contributors

Marta Caretto contributed to the conception, drafting and revision of the article critically for important intellectual content.

Andrea Giannini contributed to the drafting and revision of the

article.

Tommaso Simoncini contributed to the conception and drafting of the article, and revision of the article critically for important intellectual content.

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