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.

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Cancer surgery in a time of COVID-19: Many questions, few certainties

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Introduction

Many countries and regions have reduced cancer diagnostics and surgery in order to reallocate resources to treating COVID-19 patients and to avoid risk of infection for cancer patients [1]. With the pandemic now appearing unlikely to resolve in weeks, several considerations and conundrums are arising in the clinical practice of surgical oncologists.

Current management of cancer surgery and ethical considerations

Delays in cancer care are a significant concern, given previous data describing a correlation between delay in surgery and reduced overall survival for solid cancers [2].

There is limited data to base decision making on in this climate, and many guidelines have had to be written in a data vacuum. It is concerning seeing International Scientific Societies and Health Care Institutions endorsing recommendations and guidelines promoting for the first time 'new' standards of practice backed up by severely limited science. Perhaps the race to publish "something" has been prioritized over the one to generate solid knowledge.

For many solid tumours, algorithms to prioritize patients based on cancer type and extension, prognosis, life expectancy, treatment opportunities, as well as risk of COVID infection have been proposed with varying results. These versions of patient selection scores carry substantial ethical dilemmas, especially when related to senior adults and palliative patients who have been prevented, based on many of these algorithms, to have access to care. Surgeons have to balance utilitarian and deontological principles, keeping in mind that delaying probably decreases survival and may significantly impact quality of life. Non-operative strategies have been recommended in some cases, as treatment pathways have been urgently redesigned, but uncertainty remains about the mid- and long-term impact.

Reorganising services: the need for "clean" sites and areas

It is increasingly recognised that the pandemic will not end in a short timeframe. Thus, it becomes necessary to focus on the longer effects on cancer management. One strategy to overcome near-future failures has been tried in areas with small volumes of COVID where clean areas within hospitals or entire hospitals have been preserved as "clean" site for cancer surgery to continue in a "cocooned" environment. The challenge in maintaining a "clean" site is significant. Techniques described include getting patients to self-isolate prior to admission, screening patients before admission with swabs and frequent screening and appropriate PPE for healthcare workers. The commitment of hospital administrations and politicians is essential. Surgeons should play a pivotal role in coordinating cancer-services reorganisation.

Surgical approach – minimally invasive cancer surgery

There has been significant debate over the role of minimally invasive cancer surgery in the context of COVID-19. This has mainly pertained to concerns regarding the risk to staff of aerosolization of virus particles. Guidelines and opinions from various bodies and experts have been contradictory. The Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) recommend that appropriate precautions should be taken for laparoscopic, robotic and open surgery, as there is no evidence to recommend one approach over the other.

Economic impact on society and consequences on cancer surgery

Every national health care system will have to consider the pandemics economic impact when rebuilding/enhancing cancer services. Programs will also need to catch up with the large number of patients who have had postponed investigations and treatment. Recessions have been shown to increase mortality [3]. To mitigate this, there will need to be investment in healthcare programs focused on rebuilding cancer services including improving staffing, infrastructure and implementing telemedicine to deal with the burden on diagnostic and treatment pathways as the pandemic abates.

Research and cancer surgery

There is an urgent need for solid scientific research during this pandemic to improve our evidence base for decision making in the context of COVID. Several large-scale research projects are

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ongoing, e.g. COVID-SURG and COVID-SURG Cancer [4].

Learning from a pandemic

While the COVID-19 pandemic progresses there is a need to plan cancer care for the medium term at least. Surgical oncologists together with healthcare administrators and international cancer societies must work together to generate solid evidence in order to promote judicious standard of practice based on scientific data. Ensuring adequate, ethical and safe access to cancer care is mandatory, above all in these challenging times. As more data becomes available, guidelines written in the data void will need to be updated and evolve.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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