Perspective

The travails of therapeutic modifications in cancer care amidst the COVID-19 pandemic: Future directions and lessons learned

The coronavirus disease 2019 (COVID-19) pandemic continues to pose challenges of unparalleled magnitude. Unsurprisingly, COVID-19 amongst cancer patients has been associated with higher mortality rates and ventilation support, with the highest mortality associated with hematological malignancies [1–3]. The burgeoning risk of disease progression secondary to delayed treatment-seeking behavior precipitated by fears surrounding the pandemic has resulted in significant morbidity and mortality. While the risk stratification and categorization of cancer care priority remains elusive, we hereby provide some suggestions to bridge the chasm that exists in our current cancer care regimens despite recent suggestions pertaining to therapeutic modifications.

Cancer patients are at a relatively higher risk of contracting SARS-CoV-2 infection than the general population due to frequent exposure to ongoing immunosuppressive treatment [4]. Furthermore, patients with malignancies have demonstrated an increased tendency to develop severe respiratory dysfunction, consequently requiring prolonged intensive care stay compared to those without malignancy [4,5]. The ostensible reason for these observations is related to a history of chemotherapy or recent surgical intervention. Notably, patients undergoing chemotherapy or cancer treatment demonstrate a more rapid clinical decline than non-cancer patients. Based on the aforementioned predicaments, cancer care warrants urgent modifications in order to thwart the severe complications of COVID-19 in this vulnerable population.

Recently, a comment from Benoit You and colleagues from the French High Council for Public health highlighted recommendations for adult patients with solid tumors in the context of COVID-19 [6]. We largely agree with their guidelines, and our comment further elucidates the unmet need for apt therapeutic modifications in cancer patients. We believe the chemotherapeutic regimens can be simplified in order to decrease the frequency of clinic visits as well as to decrease the risk of neutropenia. During this unprecedented crisis, tough decisions are warranted in a timely manner for the safety of our cancer patients, healthcare professionals, and the general public. Single agent capecitabine as maintenance therapy can be warranted in a timely manner for the safety of our cancer patients, healthcare professionals, and the general public. Single agent capecitabine as maintenance therapy can be warranted in a timely manner for the safety of our cancer patients, healthcare professionals, and the general public.

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chemotherapeutic doses are administered, and the resultant side effects often warrant consequent hospital visits. In such cases, we recommend that the patient history is sifted for prior therapeutic regimens and associated tolerance levels, and that a therapeutic dose believed to not elicit any adverse events is administered, even if sub-optimal [18]. We are cognizant that in some cases, compromising the chemotherapeutic dose, even to a miniscule extent, can yield greater mortality than COVID-19 itself does. We then suggest that the required therapeutic doses are administered but that prior to commencement, neutrophil counts are strictly monitored, and white cell growth factor is taken into consideration. Additionally, it is our position that steroids should not be used to manage the acute adverse events that result from chemotherapy, as steroids can further suppress the host immune system.

For various solid metastatic tumors, it is now a maxim that chemotherapy beyond the third cycle yields no additional benefits. Besieged by duress imposed by COVID-19, oncologists are now siding towards supportive treatments instead [19]. Additionally, oncologists expressed reduced preference towards systemic chemotherapy in the setting of breast cancer [20]. In line with this, primary surgery has become a preferred approach to triple negative and estrogen receptor (ER) negative breast cancers [20]. While we agree with these recommendations in the short-term, they might not be viable in the long run. For example, cancer cases not treated with adjuvant therapy initially might in turn require surgical intervention, which will indubitably expose cancer patients to infective ailments. We therefore vehemently champion the notion that neoadjuvant therapies are employed to reduce the need for emergent surgical interventions and aid in preserving the health resources that are vulnerable to depletion sooner or later.

The need for modifying therapeutic cancer regimens is born through necessity and nurtured through an in-depth analysis of the debilitating consequences deprioritizing cancer care can foment. While efforts are being made to contain the proliferation of the COVID-19 pandemic, we should ensure that we are not headed towards another imminent pandemic—characterized, this time, by an exorbitant backlog of cancer patients requiring emergent care.

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TA, MHNG, ZIT: conceived the idea, designed the study, and drafted the manuscript.

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**Fig. 1.** A proposed triaging strategy based on the apt categorization of patients with regards to priority of care (adapted from the NICE guidance) [17].
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Consent

NA.

Declaration of competing interest

None.

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