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Practical considerations for cancer patients in the COVID-19 pandemic

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Practical considerations for cancer patients in the COVID-19 pandemic

Eva Segelov* MBBS PhD FRACP 1, Craig Underhill MBBS FRACP 2, Hans Prenen MD PhD3, Christos Karapetis MBBS FRACP 4, Christopher Jackson MBChB FRACP 5, Louise Nott MBBS FRACP 6, Tim Clay MBBS, FRACP, PhD 7, Nick Pavlakis MBBS, FRACP, PhD 8, Sabe Sabesan MBBS FRACP, PhD 9, Ellen Heywood RN, Grad Dip, MBA 10, Christopher Steer MBBS, FRACP 2, Carrie Lethborg BSW11, Hui K. Gan MBBS, FRACP, PhD12-14, Desmond Yip MBBS, FRACP 15, Narayan Karanth DM, FRACP 16, Deme Karikios BSc MBBS FRACP 17, C. Raina MacIntyre MBBS Hons 1, M App Epid, PhD, FRACP, FAFPHM 18

1Department of Oncology, Monash University and Monash Health, Melbourne, Australia
2Border Medical Oncology., Albury-Wodonga Regional Cancer Centre, Australia and University of NSW Rural Clinical School, Albury Campus, Albury, Australia
3Department of Oncology, University Hospital Antwerp, Edegem, Belgium
4Department of Medical Oncology, Finders Medical Centre, Adelaide, Australia and Flinders University
5Department of Medicine, University of Otago, Dunedin, New Zealand
6Department of Medical Oncology, Royal Hobart Hospital, Hobart, Australia.
7Department of Oncology, St John of God Subiaco Hospital and School of Medicine and Health Sciences, Edith Cowan University, Perth, Australia
8Department of Medical Oncology, Royal North Shore Hospital, Sydney, Australia
9Department of Medical Oncology, Townsville Cancer Centre, Townsville Hospital and Health Services, Townsville, Australia
10Director of Clinical Operations, Cancer Services Monash Health, Melbourne, Australia
11Manager, Inclusive Health Research, St Vincent's Health Australia, Melbourne, Australia
12Olivia Newton-John Cancer Research Institute, Austin Health, Heidelberg, Victoria, Australia
13La Trobe University School of Cancer Medicine, Heidelberg, Victoria, Australia.
14Department of Medicine, University of Melbourne, Heidelberg, Victoria, Australia
15Department of Medical Oncology, The Canberra Hospital and ANU Medical School, Australian National University, Canberra, Australia
16Department of Medicine, Royal Darwin Hospital, Darwin, Northern Territory, Australia
17Department of Medical Oncology, Nepean Hospital and Nepean Clinical School, Sydney Medical School, University of Sydney, Sydney, Australia
18Biosecurity Program, Kirby Institute, University of New South Wales, Sydney, Australia

*corresponding author

Eva Segelov
MBBS (Hons 1) PhD FRACP
Professor/Director of Oncology
Monash Health and Monash University
Mail: Level 7, MHTP building, Monash Health 246 Clayton Rd Clayton VIC 3168 Australia
Mob: +61 499073833 Ph: 61 3 8572 2392
E: eva.segelov@monash.edu

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Abstract

Cancer has become a prevalent disease, affecting millions of new patients globally each year. The COVID-19 pandemic is having far-reaching impacts around the world, causing substantial disruption to health and health care systems that is likely to last for a prolonged period. Early data has suggested that having cancer is a significant risk factor for mortality from severe COVID-19. A diverse group of medical oncologists met to formulate detailed, practical advice on systemic anticancer treatments during this crisis. In the context of broad principles, issues including risks of treatment, principles of prioritising resources, treatment of elderly patients and psychosocial impact are discussed. Detailed treatment advice and options is given at a tumour stream level. We must maintain care for cancer patients as best we can, recognizing that COVID-19 poses a significant competing risk for death that changes conventional treatment paradigms.
Introduction

The pandemic of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), hereafter referred to as COVID-19, already has far-reaching impacts across society, causing an unprecedented disruption to health and health care systems globally. Despite extensive planning, the rapidly evolving and uncertain environment leaves patients and health care workers in uncharted waters. Public health measures and information for the general community is constantly updated across all media. Clinical craft groups that are directly impacted, such as intensive care physicians, have rapidly produced expert-led consensus guidelines outlining treatment pathways. However, detailed guidance for patients with specific medical conditions, such as cancer, and their treating clinicians, is not yet readily available.

The impact of COVID-19 on cancer patients has wide ramifications at an individual and system level. Data from China reports that for cancer patients, the case fatality rate (CFR) is approximately double that of all patients (5.6% vs 2.3%)\textsuperscript{1,2}. In addition, the pandemic has impacted on cancer treatment, rapidly requiring adjustment of traditional clinical decision making. The emergence of a significant competing risk of death has changed the risk / benefit ratio of cancer therapy and with many unknowns has left patients and clinicians without the usual carefully acquired evidence on which to base practice.

Papers describing general principles to consider for cancer patients have been rapidly published, mainly focused on the logistics of service provision. To add practical and detailed advice on systemic anticancer treatment, we urgently convened a diverse group of medical oncology experts from public and private practices, including medical, nursing and allied health staff. Born of necessity, broad engagement and expert peer review was considered a rapid and robust substitute for the lack of evidence in this unique setting. The guidance in this manuscript drills down on areas that have not yet been the subject of detailed advice, particularly tumor specific considerations, articulated under an umbrella of broad principles (Table 1).
In 2018, there were an estimated 18 million cancer cases globally. During this pandemic, we need to consider how best to focus our delivery of cancer care to individual patients, in the context of overwhelmed health systems. It is incumbent on us to ensure that we do not expose our patients to a greater risk of severe COVID-19 infection and death, by failing to adapt our usual treatment paradigms to account for the impact of this new and lethal disease. Beyond the pandemic, there will be a need to manage patients who may have missed aspects of usual care as well as deal with the multitude of medical and psychosocial consequences that will impact on people living with cancer.

COVID-19 testing and Infection control

Global epidemiologic projections are based on confirmed cases, although testing is currently restricted in many countries due to shortage of test kits, with asymptomatic patients largely not tested, resulting in an underestimation of infection rate. Of concern is that undetected transmission may occur in the many hospital settings frequented by oncology patients, including emergency departments, intensive care, oncology wards and day units. Infection may be transmitted by staff, visitors or patients to vulnerable or immunosuppressed oncology patients. Cancer is a risk factor for more severe outcomes of COVID-19 and COVID-19 has caused nosocomial infections in admitted patients. Bacterial or viral co-infection is also a risk for immunosuppressed patients, especially concerning as the influenza season approaches in the Southern Hemisphere.

COVID-19 is an enveloped virus, which can be spread by droplet, contact and airborne routes. Studies have shown extensive contamination in a room of a patient with COVID-19, including on personal protective equipment worn by a health worker. The virus can persist on surfaces for 4-6 days, but is inactivated by chlorine or alcohol based disinfectants, so cleaning of surfaces in hospital wards and cancer day units must be meticulous and frequent. Practical tips for infection control in cancer day units and wards include: fever screening for staff and visitors; spatial separation; frequent disinfection of high-touch areas; and clinical triage protocols for febrile patients. Testing with a multiplex
viral and bacterial polymerase chain reaction assay should be considered if another pathogen is part of the differential diagnosis. Co-infection with COVID-19 and other pathogens can occur, but is rare\textsuperscript{5}.

**Febrile cancer patients**

As community transmission increases, it is realistic to anticipate that cancer patients will be disproportionately part of the cohort who present with fever due to COVID-19. Conversely, COVID-19 as a cause of fever in the cancer patient will need to be distinguished from febrile neutropenia presentations, other ‘usual’ infections, disease manifestations (e.g. high tumor burden) and treatment related toxicities. It is imperative that these are not overlooked, given the current emphasis of fever and COVID-19, particularly if experienced staff are in short supply.

A standardized telephone triage toolkit can be adapted with specific questions for cough, coryzal symptoms, dyspnea, underlying lung disease, recent treatment, travel and contact history\textsuperscript{9}. Newer models of triage can be quickly and easily implemented, such as nurse-led symptom and urgent review clinics, developed to address the gap within cancer day units for supporting unwell patients and treatment related toxicities.

Febrile or unwell cancer patients should be categorized as high or low risk for COVID-19. Patients deemed high risk could be triaged either to a general COVID-19 clinic or a specialized ‘high risk’ clinic, which could also service other immunocompromised and frail patients. This would allow for enhanced Personal Protective Equipment for staff (e.g. consider respirators rather than masks\textsuperscript{10}) and concentration of expertise. It is essential not to delay antibiotics for neutropenic patients whilst they are being assessed for COVID-19, particularly giving the time delay for results.

Febrile patients deemed at low risk of COVID 19 should be managed within the cancer service, using pathways that minimize sending potentially immunocompromised patients to overloaded emergency departments.
Clinical Trials and Research

The impact of COVID-19 will likely be extensive, posing governance and ethics dilemmas, impacting resources and logistics of trial conduct and requiring adaptation of protocols and timelines.\textsuperscript{11} Whilst possible, trials should continue to be supported, except protocols of specific concern relating to COVID-19. Pragmatic adjustments should be made to minimize patient risk whilst maintaining good clinical practice. These will need to evolve as guidelines from government and industry are modified as the pandemic spreads.

Older patients

Approximately 50\% of patients with cancer are aged over 65. Age independently imparts a higher risk of severe and deadly COVID-19\textsuperscript{12}; the high cancer CFR may be partly confounded because cancer is commoner in older adults. Nevertheless, there is a clear need for special attention to elderly patients.

The management of older adults with cancer during the COVID-19 pandemic remains guided by the general principles of geriatric oncology, however more rigorous and systematic application of screening and assessment tools is strongly recommended. Multiple guidelines recommend that all older adults being considered for cancer treatment should undergo some form of geriatric assessment\textsuperscript{13-15}, to help estimate life expectancy, document vulnerabilities not noted on routine questioning and guide supportive care strategies. Evidence supports that at a minimum, function, comorbidity, falls, depression, cognition and nutrition should be assessed\textsuperscript{16}. However, this is variably instituted in routine practice, largely due to time constraints and lack of unfamiliarity with the tools. Given the risk of COVID-19, treatment decisions should be informed by undertaking these validated assessments, which are widely available. Toxicity of chemotherapy should be predicted using calculators such as the Hurria prediction tool, that includes geriatric variables\textsuperscript{17}.

Remote and indigenous communities

Safety and effectiveness of cancer care for these groups warrants special mention, as the pandemic is likely to exaggerate the existing gaps in cancer care and well described
disparities in outcomes. Patients living in very remote areas must travel to remote or outer regional facilities for delivery of systemic therapy. During the pandemic they may not be able to access treatment unless they stay away from their family and ‘country' for extended periods. Patients moving to more populated areas risk a higher chance of exposure to COVID-19, as well as loss of family and cultural support. On the other hand, many very remote communities are isolating, either self or government imposed, which means that access to cancer treatment may be lost.

**Oncology Telehealth**

Robust literature supports the use of telehealth in the provision of consultations, supervision of therapies and educational activities, as well as for performing various aspects of clinical trials. Telehealth provides an ideal contribution to social distancing measures and should be used for meetings with colleagues, particularly multidisciplinary tumor boards, as well as patient consultations. Issues to consider are privacy and security; technological support, robust note-keeping and education of patients, particularly those unfamiliar with technology or disadvantaged regarding access. Multi-way conversations can include interpreters and family members in lockdown.

**Adjustment of routine follow-up attendances**

Follow-up visits fulfil multiple needs for patients and clinicians: detection of recurrence; reassurance; management of ongoing or late toxicities; detection of second malignancies and survivorship care. The significant increase in the number of patients cured of, or living with cancer for extended periods has placed a large service demand on cancer clinics. Protection of patients and staff and rationalization of services during the pandemic should drive sensible adjustments of standard follow-up timeframes and methods (Supplementary Table 1).

**Communication and psychosocial care**
Many patients are rightly concerned and distressed by the impact the pandemic may have on their cancer care, as well as the level of treatment they may receive if they contract COVID-19. Layered on top of a cancer diagnosis, health care providers should be vigilant in screening for and managing psychosocial distress (Table 2). Most patients will benefit from acknowledgement of the normality of increased concerns during this period of global uncertainty and in the setting of a cancer history.

**Immunotherapy**

Reports of interactions between viral infections and immune checkpoint inhibitors and other cancer immunotherapy are conflicting. These agents reverse the inactivation of T-cells, potentially enhancing host response to viral infections\(^\text{21}\). Early studies reporting exacerbation of immune related adverse events by seasonal influenza vaccines were not supported by later data\(^\text{22-25}\).

Management of patients on immunotherapy in the context of COVID-19 is challenging. Of significant concern is that patients who develop immune related adverse events frequently require treatment with high dose steroids and other powerful immunosuppressants. Use of these in patients with fulminant viral infection can significantly worsen outcome; early data is supports this may be true for COVID-19\(^\text{26}\).

The incidence of pneumonitis exceeds 5% for combination checkpoint inhibition, with symptoms mimicking those of COVID-19, including fever, dry cough, shortness of breath and bilateral ground-glass opacities on chest imaging\(^\text{27}\). For severe cases, where immune reaction is most likely, immediate immunosuppression with extremely rapid testing for COVID-19 should be instituted. Note that the sensitivity of detection of COVID-19 depends on the method of testing, and patients with severe respiratory symptoms may need bronchoscopy\(^\text{28}\).

The effectiveness of immune checkpoint treatment has meant a significant increase in the number of patients and time continuing on treatment. This was already impacting day centre capacity prior to the anticipated impact of COVID-19 on medical equipment and staff.
Given that pharmacokinetic modelling suggests that higher dose with reduced frequency results in a similar Area Under Curve to standard dosing for checkpoint inhibitors (which already evolved from body surface area based to fixed dosing schedules). In the face of reduced cancer treatment capacity, it would be pragmatic to adopt a move to six weekly scheduling\textsuperscript{29, 30}.

For combined checkpoint inhibition with CTLA-4 and PD1 inhibitors, the incidence of grade 3 and 4 toxicity exceeds 50\%\textsuperscript{31, 32}. Given these complications require significant immunosuppression, we recommend during the pandemic that combination therapy be reserved for highly selected patients.

Prioritization

A number of scenarios, ranging from possible to probable, will provoke decisions about cancer service provision. Planning must foreshadow that capacity of oncology units may be significantly reduced. Systematised prioritization decisions should be pro-active and transparent, rather than being made \textit{ad hoc} by individual clinicians. Those in the front line of deciding care for severely unwell patients, such as Emergency and Intensive Care clinicians, are rapidly producing unified guidelines, informed by learnings from countries such as China and Italy.

All reasonable steps should be taken to ensure that patients continue to receive optimal cancer care where possible. This may require outsourcing of treatment beyond usual referral pathways, for example to private facilities. Administrators and funders should ensure that these plans are made early and are easy to activate, with no cost barriers or individual discrimination for access. Government funders and regulators should remove reimbursement restrictions for anti-cancer agents and dissolve rules stipulating defined sequencing (such as oral medication only after failure of a prior intravenous therapy) or tight subcategories of patients (which disadvantages those with rare cancers). A consultation process between governments and peak medical oncology bodies could rapidly define the
criteria where sensible adjustments will allow appropriate options for patients during the pandemic.

In the worst-case scenario, prioritization to reduce cancer care delivery may become unavoidable. This may affect cancer patients for systemic treatments as well as cancer surgery, radiation, access to pathology and imaging and other procedures.

Access to Intensive/Critical Care

Prioritization may be required for individual patients who contract COVID-19 in the face of overwhelmed hospitals. The ethical principles of beneficence and justice should prevail. Honest assessment of prognosis by clinician and corresponding understanding by patient and family is important. Easily accessible and clear documentation of goals of care will assist to prevent under-treatment of patients with excellent prognosis and overtreatment of those with a poor prognosis from both cancer and COVID-19.

The concept of tertiary triage refers to the allocation of critical resources for patients already in the hospital environment. This will predictably cause distress for patients, families and healthcare workers alike. Harmonization of prioritization guidelines for care across craft groups is essential to avoid conflicting opinions for individual patients, especially as deterioration can be rapid with COVID-19. Guidelines from Emergency and Intensive Care seek to define groups for restricted access to critical care if resources are limited based on lower chance of survival.

Cancer patients are vulnerable to being excluded as a group. Education of non-oncologists to recognize the greatly improved outcomes and the subtleties of prognostication for individual cancer patients is vital and medical oncologists where possible should be involved in discussions concerning individual patients. A useful framework is to categories life expectancies by treatment intent for broad cancer scenarios to assist non-cancer experts. We suggest four categories: curative intent: expected prolonged survival in presence of metastatic disease; treatable metastatic disease with a short- median prognosis and malignancy in frail patients.
Oncologists also need to recognize that patients with metastatic solid organ malignancies have poor survival outcomes after ICU admission, with studies defining predictors as lung cancer (although in the pre-immunotherapy era), extent of systemic disease, need for invasive mechanical ventilation or renal replacement therapy or vasopressor support\textsuperscript{34-37}.

The COVID-19 pandemic is unprecedented in our lifetime and we are likely to have to make difficult and distressing decisions. It is incumbent on us as an oncology community to both advocate for our patients, but also to provide realistic guidance to our colleagues.

Workforce and supply issues

Early reassigning of staff from cancer services where timelines are not critical e.g. research staff or genetics clinics, can increase workforce allowing critical service to continue. Home based services are optimal but relatively time inefficient. Liaison with community allied health providers, in particular pharmacists, should occur early to allowing upskilling. Health administrators will likely repurpose most and even all staff away from cancer in the event of overwhelming demand from COVID-19.

Cancer clinicians face many upcoming challenges, including care of patients outside their area of expertise; coping with the rapidly enlarging COVID-19 literature; and daily updating of logistics within health services. Choosing reliable sources of information, maintaining good communication, planning for almost inevitable exposure to COVID-19 and debriefing and supporting colleagues and family are strategies that may assist staff to cope. Seeking help for distress and acknowledging personal impact is vital to cope with distress.

Tumor specific guidelines

The principle of evaluating each treatment for each patient provides a framework for care but there is a need for more granular information to assist less experienced oncologists or those who are asked to care for patients outside their subspecialty. Treatment pathways may also need to consider the impact of altered timing of surgery and/or radiation schedules.
Table 3 provides a guide of treatment considerations by cancer diagnosis. It is aimed a
provoking consideration of options, but in no way intends to dictate care.

Conclusion

COVID-19 has appeared rapidly, causing an unprecedented impact on health in the
broad community, affecting life as we know it in every country. The capacity of health
systems to cope with the scale and severity of illness is a challenge not faced by the modern
world. Cancer clinicians and patients are profoundly affected and need reassurance and
guidance from experts and colleagues regarding reasonable changes to standard practice.
This document is intended to guide not only subspecialists with great knowledge and
experience, but also junior doctors and non-cancer clinicians. In the many difficult months
ahead, we continue to have a duty to provide the best care possible for our patients, whilst
ensuring we take good care of ourselves and our families.
**TABLES**

Table 1: Broad principles for cancer patients and COVID-19

<table>
<thead>
<tr>
<th>Risk</th>
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<tr>
<td>• For each patient, weigh the benefit of treatment against risk of COVID-19 as well as usual treatment risks; make appropriate adjustments not only for new patients but patients currently on therapy.</td>
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<tr>
<td>• Use of a nomogram to assess the risk of chemotherapy toxicity is encouraged e.g. <a href="https://www.evidencio.com/models/show/520">https://www.evidencio.com/models/show/520</a></td>
</tr>
<tr>
<td>• Discuss and document likely prognosis, in order that patients are assessed appropriately for care if they contract COVID-19. Be aware that their usual clinician may be off sick or allocated to other work so clear documentation in notes and letters (beyond a single institution’s record) are important.</td>
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<tr>
<td>• Employ validated tools particularly in the elderly to assess risk of toxicity and benefit (unrelated to COVID-19) to inform conversation that then includes COVID-19 risks.</td>
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<table>
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<tr>
<th>Prioritizing resources and choosing therapy</th>
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<tr>
<td>• Focus resources on patients having treatment with curative intent.</td>
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<tr>
<td>• Consider treatment breaks for patients with low volume and/or stable metastatic disease.</td>
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<tr>
<td>• Consider mono-agent therapy and upfront dose reduction or treatment break in the frail and the elderly.</td>
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<tr>
<td>• Use alternate systemic anti-cancer therapies regimens with less visits.</td>
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<tr>
<td>• Reduce the use of combination immunotherapy agents, that although can have survival advantages, have a much higher risk of toxicity (including pneumonitis) requiring hospital admission.</td>
</tr>
<tr>
<td>• Use oral anticancer agents where possible but weigh any different toxicities with convenience.</td>
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<tr>
<td>• Use oral pre-medications including anti-emetics, steroids, antihistamines that patient can take prior to entering the chemotherapy day unit in order to shorten in-center time.</td>
</tr>
<tr>
<td>• Minimize face to face visits including monitoring, treatment administration and staging, with shift to telehealth and community-based care where available.</td>
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<tr>
<td>• Defer non-essential investigations and routine follow-up.</td>
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<th>Patient Support during treatment</th>
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<tr>
<td>• Add growth factor support to reduce risk of neutropenia.</td>
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<tr>
<td>• If available use a home-based service for port flushes, chemotherapy disconnections and other suitable procedures.</td>
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<tr>
<td>• Use community practices for blood collection, imaging and support services rather than in-hospital services; only order essential tests.</td>
</tr>
<tr>
<td>• Provide clear recommendations for each patient on how to act when having symptoms such as fever or dyspnea.</td>
</tr>
<tr>
<td>• Deploy proven telehealth initiatives and new models of care to manage oncology patients with fever.</td>
</tr>
<tr>
<td>• Advise patients to have timely seasonal influenza vaccination (southern hemisphere)</td>
</tr>
<tr>
<td>• Utilize telehealth to support patients with local support staff and national cancer and non-cancer helplines</td>
</tr>
<tr>
<td>• Extra vigilance should be used to screen for the presence of anxiety and/or depression symptoms especially in those with a history of mental health concerns.</td>
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<tr>
<th>Supporting staff</th>
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<tr>
<td>• Maintain the health of oncology health professionals and have clear pathways for administering cancer care if significant numbers of expert staff are ill.</td>
</tr>
<tr>
<td>• Prioritize redeployment of staff from non-time essential cancer services such as cancer genetics and survivorship clinics.</td>
</tr>
<tr>
<td>• Staff should be monitored for signs of fatigue, distress and depression and workload should be carefully monitored</td>
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<tr>
<td><strong>Government and regulatory bodies</strong></td>
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<td>-------------------------------------</td>
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<tr>
<td>• Free up access to treatments where benefit is proven but reimbursement or registration not is currently available, recognizing that traditional treatment pathways may put patients at increased risk.</td>
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<tr>
<td>• Centralized government and non-government organization delivery of support services and information, to ensure equity of access, consistency of advice and engagement of all stakeholders.</td>
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<tr>
<td>• Remove restrictions on in-person requirements such as signing prescriptions; limitations on medication supply and delivery.</td>
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<tr>
<th><strong>Treatment-related considerations</strong></th>
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<tbody>
<tr>
<td>• Most chemotherapy agents and many other systemic therapies for solid tumors can cause neutropenia. Concerns have traditionally related to bacterial infection, however lymphopenia is also common, particularly with certain agents such as temozolomide.</td>
</tr>
<tr>
<td>• Corticosteroids, a risk factor for COVID-19, are widely used, often in high doses and repeated courses, for indications ranging from anti-emesis to treatment of immunotherapy side effects to treatment of disease related symptoms such as pain, cord compression or brain metastases.</td>
</tr>
<tr>
<td>• Many treatments cause mucositis, with breach of mucous membranes likely a risk factor for COVID-19 infection and exposure to spreading of virus by aerosol.</td>
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<tr>
<td>• Pneumonitis is a recognized and not uncommon toxicity associated with some systemic therapies, particularly immune-oncology drugs. Distinguishing this from infective pneumatic processes may be clinically difficult. Treatment of inflammatory pneumonitis with high dose steroids and immunosuppression appears to be contraindicated for COVID-19 – associated Acute Respiratory Distress Syndrome, as it might exacerbate associated lung injury, so care with diagnosis is critical.</td>
</tr>
<tr>
<td>• Many cancer patients are current or ex-smokers with underlying lung pathology.</td>
</tr>
<tr>
<td>• Cancers have varying underlying prognoses, many that have changed with recent therapeutic advances that may not be familiar to non-oncology clinicians; likely prognosis should be well documented.</td>
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<tr>
<td>Patient concerns</td>
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<td>--------------------------------------------------------------------------------</td>
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<tr>
<td>No or limited access to their cancer treatments due to increased demand on the</td>
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<td>health service and depleted workforce.</td>
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<tr>
<td>Access to critical care services (e.g. intubation, ICU) could be limited or</td>
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<td>simply not offered due to their cancer diagnosis.</td>
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<tr>
<td>As the impacts and recommendations regarding COVID-19 are rapidly evolving,</td>
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<tr>
<td>patients are uncertain and anxious about how they should now be managing their</td>
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<tr>
<td>Cancer patients / survivors are more vulnerable to the virus. Isolation from</td>
</tr>
<tr>
<td>family / friends may be more pronounced in this group and they may self-impose</td>
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<tr>
<td>even stricter measures than by heath authorities recommend to maintain their</td>
</tr>
<tr>
<td>current health. Patients may feel overwhelmed and/or exhausted by what could be</td>
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<tr>
<td>perceived as yet another invisible threat to self. Elderly patients may avoid</td>
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<tr>
<td>contact with relatives</td>
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<tr>
<td>Death of a family member or relative from COVID-19. Due to the nature of the</td>
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<tr>
<td>virus, they would be unable to visit or say goodbye to their loved one. This</td>
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<tr>
<td>may lead to difficulties around grief and loss.</td>
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<tr>
<td>As the impacts and recommendations regarding COVID-19 are rapidly evolving,</td>
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<tr>
<td>patients are uncertain and anxious about how they should now be managing their</td>
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<tr>
<td>life with cancer.</td>
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**Advice for clinicians**
<table>
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<tr>
<th>Anxiety and depression including exacerbation of existing mental health issues</th>
<th>Extra vigilance should be used to screen for the presence of anxiety and/or depression symptoms especially in those with a history of mental health concerns.</th>
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<tbody>
<tr>
<td>Screening &amp; Assessment</td>
<td>Multiple validated screening for distress tools are used in clinical settings. These include the Distress Thermometer\textsuperscript{38} and the Edmonton Symptom Assessment System\textsuperscript{39}. Consider remote administration.</td>
</tr>
<tr>
<td>Symptoms and severity</td>
<td>People with cancer and pre-existing mental health conditions should continue with their treatment and be aware of new or worsening symptoms as the uncertainty of COVID-19 may exacerbate anxiety. Consider early referral to psycho-oncology services as these resources may have limited availability.</td>
</tr>
</tbody>
</table>
| Stepped care\textsuperscript{40} | Psychological first aid is a proven beneficial response to trauma\textsuperscript{41}:  
  o Calm people & reduce distress  
  o Make people feel safe & secure  
  o Identify & assist with current needs  
  o Establish human connection  
  o Help people understand the disaster & its context  
  o Help people identify their own strengths & abilities to cope  
  o Assist with early screening for people needing further or specialized help  
  o Get people through the first period of high intensity and uncertainty |
| Impact of Quarantine | The impact of specific stressors relating to quarantine should also be assessed including:  
  o separation from loved ones  
  o loss of freedom  
  o uncertainty over disease status  
There is some evidence that rates of suicide, substantial anger and frustration can rise during quarantine\textsuperscript{42}. A balance between social distancing/quarantine and connection with others is important – even if this is through telephone and internet based contact.\textsuperscript{43} |
### Specific Considerations for COVID-19

#### EARLY BREAST CANCER

### Neoadjuvant Therapy
- ER-positive/HER2-negative carcinomas, especially of the lobular histology and luminal A-like subtype, are generally less responsive to primary chemotherapy and may benefit more from primary endocrine therapy.
- Try to identify patients where more immunosuppressive treatments can be avoided and use endocrine therapies.

### Adjuvant Therapy
- Small absolute benefits in lower risk ER positive patients may be outweighed by the risk of receiving chemotherapy if the patient is considered more vulnerable based on comorbidity or age.
- Multigene panels, such as MammaPrint, Oncotype DX, EndoPredict etc. used in conjunction with clinico-pathological factors to guide challenging treatment decisions such as luminal B-like/HER2-negative and node-negative/nodes 1–3-positive breast cancer can help identify patients that do not require immunosuppressive chemotherapy.

#### 3rd Generation Adjuvant Regimens
- Avoid concomitant Anthracyclines and Taxanes as sequential use is superior and much less toxic.
- Avoid the concomitant use of 5-FU and anthracycline i.e. FEC regimens as they increase toxicity without improving efficacy.
- Strongly consider the use of growth factors in all 3rd generation adjuvant chemotherapy regimens to reduce duration and severity of neutropenia in an otherwise at-risk population.

#### 2nd Generation Adjuvant regimens
- Non-anthracycline, taxane-based regimens, such as 4 cycles of docetaxel and cyclophosphamide (TC), may be used as an alternative to 4 cycles of anthracycline-based chemotherapy and are more efficacious but have higher rates of neutropenia Grade 3-4 neutropenia rates are 61% for TC and 55% for AC.
- Strongly consider the use of primary prophylactic growth factors.
- Febrile neutropenia is much higher in observational cohorts than they are in randomized trials.

### Her 2 positive (HER2+)
- In small, node-negative, mostly ER-positive, HER2-positive tumors with no other risk factors, the combination of single agent paclitaxel and trastuzumab provided excellent outcomes in a single-arm phase II study. Identify patients suitable for less intensive chemotherapy regimens.
- Switch patients to subcutaneous adjuvant trastuzumab after completion of parenteral chemotherapy to reduce hospital visits, if home-based services are available.

### Bisphosphonates
- Prophylactic use in postmenopausal women improves breast cancer-specific survival. There is no data suggesting superiority of a specific bisphosphonate.
- Consider switching intravenous zoledronic acid to oral options such as risedronate, alendronate, or clodronate weekly to avoid hospital visits.

### Follow-up / Surveillance
- Convert face-to-face consultations to telephone contact or telehealth consultation.
- Use Nurse Practitioner led follow up clinics if available.
- Provide education regarding patient’s specific level of immune suppression on various long term adjuvant therapies and after chemotherapy.

#### ADVANCED BREAST CANCER

### Hormone receptor positive (HR+)
- Avoid immunosuppressive chemotherapy as the first line treatment for hormone receptor (HR) positive advanced breast cancer and use endocrine therapy and
Although neutropenia rates were high, febrile neutropenia is uncommon with these regimens.

**CK4/6 inhibitors**
- Monitoring for neutropenia is required especially during the first 2 cycles.
- Delay cycles until neutrophils have recovered to at least 1000/μL; consider dose reduction.
- Abemaciclib causes less neutropenia but more diarrhea.

**Everolimus and Exemestane**
- Non-infectious pneumonitis is a known complication of mTOR inhibition; up to 50% any grade
- In the setting of community COVID-19 transmission, consider alternate endocrine options such as Fulvestrant (+/-AI, CDK4/6i) particularly in older patients where increased toxic deaths have been observed

**HER2+**
- Consider carefully the taxane partner for pertuzumab and trastuzumab. Docetaxel is associated with grade 3-4 neutropenia rates of 50% thus primary prophylactic growth factors should be strongly considered. Docetaxel also requires more dexamethasone.
- Paclitaxel administered weekly causes less neutropenia and reduced dexamethasone premedication however requires more frequent hospital visits. Consider reducing frequency of blood tests for patients with repeatedly normal blood counts.

**HR+ HER2+**
- Consider combination of endocrine therapy plus anti-HER2 therapy as maintenance therapy for ER+ /HER2+ ABC after initial chemotherapy or as an early switch to reduce immunosuppression and hospital visits in suitable patients with lower volume disease and or comorbidities placing them in higher risk categories.

**Triple Negative Breast cancer with germline BRCA mutation**
- Consider PARP inhibitor monotherapy as an oral option for after previous chemotherapy but note that although not a chemotherapy, anemia, neutropenia and sepsis are toxicities.

**Chemotherapy**
- Single agent chemotherapy preferable.
- Choose oral agents to reduce visits to CDU: capecitabine, oral vinorelbine
- Consider chemotherapy schedules with less frequent administration schedule e.g. pegylated liposomal doxorubicin q28 days using 40 mg/m² to reduce toxicity (consensus of the reference committee)
- For patients with low burden of disease or significant co-morbidities, consider deferring or delaying chemotherapy

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**COLORECTAL CANCER**

**Neoadjuvant Therapy**
- Consider short course radiotherapy for neoadjuvant treatment rather than long course CRT because of lower toxicity, less hospital visits, less blood tests.

**Adjuvant Therapy**
- Low risk Stage II colon cancer: strong preference for no chemotherapy as curative benefit is minimal.
- High risk Stage II colon cancer e.g. T4: preference for maximum 3 months chemotherapy.
- Stage III, low risk (T3N1): strongly consider stopping after 3 months, based on results of IDEA trial.
- Stage III, high risk (T4N+/T3N2): consider using a 3 week schedule such as CAPOX. Keep in mind that capecitabine causes more diarrhea (therefore hospital presentations and admissions); choose mFOLFOX where diarrhea preexists or is a concern.
- Omit oxaliplatin in high risk patients such as elderly (>70y) where there is no evidence for benefit.
- Rectal cancer: evidence for adjuvant therapy following neoadjuvant chemoradiation is weak for survival advantage, especially when pathological CR.
- For dMMR tumors: no adjuvant therapy for Stage II; consider risk- benefit
carefully for low risk Stage III.

Metastatic Therapy
- Strong preference for doublet regimen (+/-biologic), unless triplet required for: maximal tumor shrinkage in borderline operable disease; BRAF mutant tumors; rapid disease control.
- In case of triplet (mFOLFOXIRI), add growth factors routinely.
- Preference for 3 weekly schedules such as oxaliplatin plus capecitabine (CAPOX) or irinotecan q3w (350 mg/m²) monotherapy. If at risk for diarrhea, then preference for mFOLFOX.
- Cetuximab should be given biweekly as equally beneficial as weekly.
- In case of low tumor burden or stable disease consider treatment holiday or maintenance capecitabine.
- In case of operable disease, postpone elective surgery and continue with lowest toxic schedule of chemotherapy +/- biological agent.
- Use short course radiation schedules for symptom control

GASTRO-ESOPHAGEAL CANCER

Neoadjuvant Therapy
- For gastric cancers most commonly a FLOT-like schedule is used; all patients should have G-CSF given high rate (29%) of grade 3-4 neutropenia; caution also re mucositis.
- In high risk patients (elderly, comorbidities) consider switching to FOLFOX or CAPOX with a preference for a lower dose of capecitabine of 1000 mg/m² BD to avoid diarrhea.
  Consider the alternative of a definitive schedule of CRT particularly for squamous cell cancers if surgery is likely to be postponed due to hospital (particularly ICU) resources.

Adjuvant Therapy
- Ensure patient is fully recovered and in good physical and nutritional status.
  Especially for older patients, more robust assessment of capacity is required (see section on elderly assessment).

Metastatic Therapy
- First line preference for either FOLFOX Q2W or CAPOX Q3W with capecitabine at a dose of 1000 mg/m² BID given the higher chance of diarrhea.
- Preference for oxaliplatin over cisplatin as shorter duration
- Second line preference for 3 weekly schedules with either taxanes or irinotecan.
  In case of third line setting clearly balance risk/benefit ratio as benefit is small (<2 months OS).

PANCREATIC AND BILIARY CANCER

Adjuvant Therapy
- In patients treated with adjuvant mFOLFIRINOX, add growth factors
- Gemcitabine monotherapy or no adjuvant treatment is an alternative for less robust patients.

Metastatic Therapy
- Gain of chemotherapy on survival is small; consider least toxic schedule such as gemcitabine monotherapy or FOLFOX / CAPOX.

Epithelial ovarian, fallopian tube and primary peritoneal cancer
### First line therapy for advanced disease – Stage 3/4
- Systemic chemotherapy prior to debulking surgery can potentially reduce postoperative complications without compromising efficacy or overall survival.
- Consider availability of surgery.

### Second line chemotherapy (Platinum sensitive disease)
- Treatment with systemic chemotherapy for patients with asymptomatic relapse (e.g. rising Ca125 only) is not indicated. Observation alone is a valid management strategy.
- Carboplatin and pegylated liposomal doxorubicin (4 weekly) is associated with improved progression free survival and reduced toxicity in comparison to carboplatin and paclitaxel (3 weekly). It is given less frequently and may result in less carboplatin hypersensitivity reactions.

### Platinum resistant/refractory
- Patients who primarily progress on 2 consecutive chemotherapy regimens without evidence of clinical benefit may not benefit from additional therapy.

### Low grade serous carcinoma
- Although no prospective, randomized trial evidence, the use of hormone therapy (e.g. letrozole, anastrozole, tamoxifen) could be considered due to less toxicity than combination chemotherapy.

### ENDOMETRIAL CANCER

#### Metastatic therapy
- Consider hormone therapy for lower-grade endometrioid histologies, particularly if small tumor volume or an indolent growth pace.

### SMALL CELL LUNG CANCER

#### LIMITED STAGE
- Patients should continue to receive platinum/etoposide with radiotherapy. Substitution of oral etoposide is not recommended as direct comparisons have not been studied.

#### EXTENSIVE STAGE
- Given high rates of comorbidities and treatment induced neutropenia routine prophylaxis with growth factors should be considered in these patients.
- In platinum refractory disease (no response to first line therapy) or platinum resistant disease (disease free interval <3 months post first line platinum/etoposide) response to further lines of cytotoxic therapy are rare, and best supportive care only is recommended.
- If second line therapy is considered (noting small benefit), single agent regimens are preferred to cyclophosphamide/doxorubicin/vincristine due to more favorable side effect profiles.

### NON SMALL CELL LUNG CANCER (NSCLC)

#### Adjuvant Therapy
- Adjuvant therapy confers a benefit in the order of 5% at 5 years) appropriate in patients with stage II and III disease, and in some patients with high risk stage 1 disease (primary tumor > 4cm). balance benefits and risks in individual patients.
- For cisplatin+ vinorelbine regimen, consider substituting oral vinorelbine to avoid the D8 visit. This is associated with more nausea and vomiting though so need increased antiemetics.
- In patients with non-squamous NSCLC, consider using cisplatin/pemetrexed to reduce clinic visits and risk of neutropenia.
- Patients with activating EGFR mutations may be considered for EGFR TKIs as an alternative to chemotherapy.
- For squamous cell NSCLC, cisplatin/docetaxel has fewer clinic visits and lower febrile neutropenia rates but more mucositis and hair loss; cisplatin/gemcitabine has the lowest febrile neutropenia rates with the same number of clinic visits.
Chemoradiation
- For patients with non-squamous NSCLC consider platinum/pemetrexed regimens to limit the number of clinic visits.
- For patients with squamous cell NSCLC use of the weekly carboplatin/paclitaxel regimen will reduce the number of day unit visits compared to cisplatin/etoposide.
- Following chemoradiotherapy patients can receive durvalumab as per the PACIFIC trial. This study used fortnightly dosing at 10mg/kg. Consideration can be given to administering durvalumab at 20mg/kg Q4w to reduce clinic visits, although this schedule is not yet approved in all countries.

Metastatic therapy
- Patients on small molecule inhibitors for oncogene driven tumors can remain on therapy. Clinicians need to be aware of the potential for pulmonary infiltrates and pneumonitis from some agents (for example EGFR TKIs and ALK inhibitors).
- Patients receiving Dabrafenib/Trametinib for BRAF mutant NSCLC can present with drug-related fevers, similar to melanoma patients.
- Use three weekly regimens to minimize patient visits for 1st line therapy.
- For 2nd line nivolumab, four weekly dosing is preferred, but consider monitoring with 2 weekly bloods and telehealth visits if patient is in first 12 months of treatment.
- For 2nd or later line, consider oral vinorelbine or switch to immunotherapy.

OTHER THORACIC CANCERS

Mesothelioma
- Consider limiting first line therapy to four cycles of platinum doublet (instead of extending to six cycles).
- Maintenance pemetrexed should not be used due to lack of evidence of benefit.
- In patients with early or rapid progression after first line, there is minimal benefit for subsequent therapy.

Thymoma/thymic cancer
- Patients with thymoma may have underlying hypogammaglobulinemia. Measurement of immunoglobulin levels.
- Use growth factors with multi-drug chemotherapy regimens.

GENITOURINARY CANCER

Hormone Sensitive Metastatic Prostate Cancer
- Novel antiandrogens (e.g. enzalutamide, abiraterone) may be considered in preference to docetaxel chemotherapy.
- Docetaxel remains an established standard of care in combination with ADT. Clinicians will have to weigh the benefits of chemotherapy by patient factors (age, comorbidities etc.) and tumor factors (Gleason Grade, volume of metastatic disease).
- Be very cautious of docetaxel in older patients with low volume disease.
- Consider addition of growth factors.
- Consider using ADT schedules that reduce the number of visits required for implant/injection (4-6 monthly depots) or use home or GP administration.

Castration Resistant Prostate Cancer
- 1st Line: consider novel antiandrogens (abiraterone or enzalutamide) in preference to chemotherapy given the lower risk of toxicity and reduced need for hospital visits.
- Continue novel antiandrogen therapy where safe e.g. slowly progressive disease on imaging or slowly rising PSA.
- Consider risk/benefit of chemotherapy in older men.
- Use G-CSF with chemotherapy to reduce neutropenia rates.
- Consider using ADT schedules that reduce the number of visits or use community settings for implant/injections.
- Do not use mitoxantrone as no survival benefit over BSC.

Metastatic Renal Cell Carcinoma
- Consider observation with delayed commencement of 1st line therapy for patients treated low volume disease and minimal symptoms.
- For first line patients who have responded to nivolumab/ipilimumab induction therapy consider use of four weekly maintenance nivolumab.
Urothelial Carcinoma
- Choose less toxic regimens such as gemcitabine/carboplatin
- If MVAC regimen is to be used, the dose dense regimen with growth factor support involves fewer visits, shorter treatment duration and better tolerance.
- For metastatic disease, consider single agent immunotherapy in preference to chemotherapy given lower risk toxicity.

Testicular and Germ Cell Tumors
- High cure rate even with metastatic disease needs to be emphasized for patients who become sick with COVID-19.
- Low risk stage 1 testicular cancer patients should be offered active surveillance.
- Patients receiving BEP or EP should receive growth factor support.
- Patients with metastatic disease should be managed by or in cooperation with specialist centers as interruptions to their cytotoxic regimen can compromise survival outcomes.
- Patients should be monitored for bleomycin pulmonary toxicity as per standard care. Bleomycin pulmonary toxicity can present with fever, dry cough and exertional dyspnea with a differential including COVID-19 infection.

MELANOMA

Adjuvant Therapy
- Stage 2 – recommend surveillance only
- Stage 3A – observation may be preferred due to modest benefit, lack of funded options, and potential for immunosuppression in otherwise healthy patients; toxicity of therapies can overlap with presentation of COVID-19.
- Stage 3B – disseminated disease: for patients with BRAFmut consideration could be given to BRAFi due to lower contact with IV infusional services, simpler to monitor remotely, although the fevers with MEKi agents can present diagnostic dilemmas where there is community spread of COVID-19.
- Oral therapy is preferred where there it is an option of similar therapeutic benefit

Metastatic therapy
- Combination immunotherapy: reserve for limited groups of patients only given high toxicity and high need for immunosuppression for immune-related complications.
- Minimize patients treated with this approach; document potential complications of immunosuppression for toxicity and its impact
- For patients on immunotherapy, switch to prolonged interval higher dose schedules.
- For patients with prolonged stable disease, encourage treatment holiday
- For patients with activating BRAF mutations, consider initial therapy with combination BRAF-MEK inhibition as there is faster reversibility of toxicity, less need for immune suppression for complications and less CDU use.

CANCERS OF THE HEAD AND NECK

Newly diagnosed
- Primary treatment or post-operative treatment with radiotherapy ± drug therapy improves survival. Commonly used drugs like high dose cisplatin and cetuximab are not usually myelosuppressive or associated with a high risk of infection.
- Weekly regimens should be avoided because of the need for multiple hospital visit, increased risk of mucositis and skin breakdown (cetuximab) or limited data for efficacy (weekly platinum).
- Weekly platinum regimens should also be avoided due to the lack of strong evidence for survival benefit; increased visits and high steroid use
- Adequate barrier precautions for breaches of mucosa will be important.
- Avoiding multi-drug neoadjuvant treatment should also be considered, as often these having very limited evidence of survival benefit compared to standard chemo-radiation; timely surgery may not be available.
- Patients aged > 70 years of age do not benefit from addition of chemotherapy to radiotherapy so should have RT alone

Recurrent disease
- Consider less myelosuppressive drugs with less steroid requirements such as platinum or immunotherapy
- Preference monotherapy over combination therapy to reduce toxicity given no evidence of survival benefit with combination therapy

BRAIN CANCER
### Newly diagnosed GBM (Grade 4)
- Although not curative, post-operative concurrent radiotherapy with temozolomide is the only treatment to offer a survival benefit and should be offered with careful patient selection and monitoring.
- To mitigate the risk, strategies in order of importance: minimize steroid use/dose; close monitoring of neutrophils and lymphocytes used to appropriately dose adjust.
- Make treatment choices based on relative (but not absolute) lack of benefit with temozolomide for MGMT unmethylated tumours.
- Although rates of lymphopenia in the elderly are higher (27% with concurrent temozolomide) there is no increase in infections, and elderly patients still benefit from addition of chemotherapy. Consider short course radiotherapy in the elderly to reduce hospital visits.

### GBM Recurrent disease
- Chemotherapy has not been conclusively shown to increase survival. Therefore this should be discussed on a case by case basis in consultation with the patient, particularly in elderly patients.
- Bevacizumab could be a better option as it does not cause myelosuppression and can reduce steroid requirements.

### Grade 2/3 disease
- Post-operative radiotherapy and chemotherapy increase survival quite significantly in subsets of lower grade tumours.
- Chemotherapy regimens such as PCV are associated with low rates of lymphopenia (4% in one study); clinically significant infections are less frequent.
- Delaying treatment a few months for selected patients with grade 2/3 gliomas is reasonable as the timing of when to treat is less clear.

### Recurrent disease
As for GBM

## SUPPORTIVE CARE

### Steroid use
- As anti-emetics: use less steroids than traditionally prescribed; multiple alternative agents are now available e.g. olanzapine, NK1 inhibitors
- As anti-allergy prophylaxis: old schedules e.g. for docetaxel administration or weekly taxanes can still recommend very high doses of steroids which particularly if no previous reaction to the chemotherapy, can be reduced

### Bone targeting therapies
- Switch intravenous bone therapy to subcutaneous (denosumab) or oral options (ibandronate orally). Patients could be taught to self-administer denosumab if necessary.
- Depending on the indication, treatment could be safely delayed or suspended for many patients

### Granulocyte colony stimulating factors (G-CSF)
- Although guidelines recommend against the use of primary prophylactic growth factors if the estimated febrile neutropenia rate is <20%, in the COVID-19 crisis, primary prophylaxis is likely to be appropriate in many settings. Risk models can be used.
- Daily G-CSF is available but peg-G-CSF is preferred to minimize injections.
- Consider more liberal use to reduce the risk of neutropenic fever.
- Alternatively, dose reductions and delays are appropriate in non-curative treatment settings
- Avoidance of growth factors in patients receiving concomitant chemoradiotherapy for either head and neck cancer or lung cancer is recommended because of adverse effects and poorer treatment outcomes.

### Vaccinations
- All medical oncology patients should receive the inactivated influenza vaccine annually. The COVID-19 pandemic in the Southern Hemisphere will co-incide with the onset of the influenza season, a factor not currently present in many of the Northern Hemisphere countries reporting COVID-19 outcomes.
- The inactivated influenza vaccine is safe to administer to immunosuppressed patients; side-effects are similar to those in healthy individuals.
- Although vaccination before start of chemotherapy is preferred to ensure optimal protection in adults with solid tumors, also vaccination during chemotherapy can reduce influenza-related complications considering the overall trends in serological response.
- Conflicting evidence regarding the safety of the flu vaccine in patients being...
Central venous access devices | • Peripherally inserted central catheters (PICC) require more intensive maintenance (e.g. weekly flushes if not used) and have higher risk for catheter-related deep venous thrombosis and other adverse events compared with PORTs.
  • PORT flushes can be reduced to 8-10 weekly in situations of resource limitation.
  • PORTs take more specialized resources in Imaging/Interventional Radiology than PICC insertion.

Scalp cooling devices | • Due to significant increase in time in treatment center for patient an heavy use of nurse time as well as risk of scalp burns, this is not recommended during COVID9 crisis

Exercise and nutrition | • Emphasize importance of this particularly for patients in quarantine and with social distancing

Psychosocial care | • See separate section

Complementary therapies to “boost immunity” | • Beware of claims of ‘immune boosting’ properties that cancer patients may be particularly vulnerable to during the COVID-19 crisis.
  • Many complimentary therapies have known adverse impacts; interaction with COVID-19 is unknown
  • Intravenous complimentary therapies e.g. Vitamin C should be discouraged due to lack of efficacy and unnecessary exposure to COVID-19 community infection

Uninterrupted medication supplies | • Anticipating prolonged quarantine or production/resource shortage, patients should have extra supplies of their anticancer therapies and supportive medication.
  • Governments should move to make extended supplies as easy as possible to obtain
  • Medication should be able to be delivered to those in quarantine
  • Scripts should be able to be filled by fax or email or messaging within guidelines

Palliative care | • Demands for palliation for COVID-19 illness and death in the wider community is likely to exceed current supply
  • Early referral and transfer of documentation to community services will assist
  • Ensure patients have completed Advance Care Directives and discussed and documented discussions regarding ceiling of care using appropriate forms.
  • Ensure patients have copies of these documents endorsed for out of hospital use.

ER: estrogen receptor; SURC: SACT: systemic anti-cancer therapies 5FU: 5-Fluouracil; FEC: 5-Flourouracil Epirubicin and 5-Flouracil and oxaliplatin Cyclophosphamide; TC: docetaxel and cyclophosphamide; AC: Adriamycin and cyclophosphamide; G-CSF: granulocyte colony stimulating factor; pegGCSF: pegylated granulocyte colony stimulating factor; ABC: advanced breast cancer; PARPi: PARP inhibitor; capOX: capecitabine oxaliplatin; dMMR: deficient mismatch repair genes; mFOLFOX: modified regimen of 5-Fluouracil and oxaliplatin; mFOLFOXIRI: modified regimen of 5-Fluouracil and oxaliplatin and irinotecan; FLOT: 5-Fluouracil and oxaliplatin and docetaxel; NSCLC: non-small cell lung cancer; FNP: febrile neutropenia; EGFR: Epidermal Growth Factor receptor; TKI: tyrosine kinase inhibitors; ADT: androgen deprivation therapy; BSC: best supportive care; MVAC: methotrexate and vinblastine and adriamycin cisplatin; BEP: bleomycin and etoposide and cisplatin; EP: etoposide and cisplatin; CRT: chemoradiation; MGMT: 0-6methylguanine-DNAmethyltransferase; PCV: procarbazine and lomustine and vincristine; NK1: neurokinin 1; irAE: immune-related adverse events; IO: Immuno-oncology agents; BRAFi: BRAF inhibitors
Supplementary Table 1: Suggestions for adjustment of routine follow-up attendances

<table>
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<th>Scenario</th>
<th>Recommendation</th>
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| Surveillance of recurrence after curative intent therapy, not on therapy or well-maintained on therapy with no symptoms and no evidence of disease at last review | • Consider the predicted recurrence rate for each individual patient, taking into account the multiple known clinico-pathological features for their tumour  
• In case of high risk of recurrence but no symptoms, routine scans should not be performed unless there is proven evidence of benefit  
• For patients more than 3 years since diagnosis, defer and increase intervals between appointments |
| Low volume, incurable metastatic disease who are stable on oral or home based therapy and who have few symptoms | • Extend time between routine review appointments but emphasize need to contact if new symptoms or toxicity                                                                                           |
| Patients with low volume metastatic disease who are having a break from therapy and whose disease is unlikely to rapidly progress off treatment | • The necessity of appointments should be determined on a case by case basis and should be replaced with video/telehealth consultations where possible  
• Defer appointments by a 2-month interval initially (this may vary according to service and site and may change quickly), coordinate so restaging tests are done in proximity to schedule visits so results are not missed and emphasize need to contact (and provide details) if new symptoms or toxicity |
| Metastatic disease on long term therapy with stable toxicity, where disease is unlikely to rapidly progress off treatment | • Reduce frequency of visits and institute treatment breaks |
| Metastatic disease where no further therapy is planned                     | • In person visits should be replaced with video/telehealth consultations or transfer of care to a community palliative care service or the general practitioner, noting their reduced capacity also during the pandemic.  
• Patients not yet referred to palliative care should be referred, with provision of information so this is easily accessible in the community. |
References


41. Australian Psychological Society. Psychological First Aid: An Australian guide to supporting people affected by disaster. In: