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Platinum Opinion

Advice Regarding Systemic Therapy in Patients with Urological Cancers During the COVID-19 Pandemic

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Evidence suggests that cancer patients are at higher risk of death from COVID-19 [1]. Therefore, the risk/benefit ratio of a number of palliative and (neo)adjuvant treatments has to be reconsidered during this pandemic. The duration of this period and details of the risk remain to be determined. A number of factors such as age and comorbidities will also influence this risk, as will the additional visits to hospital associated with specific treatment [2,3].

The advice set out here gives suggestions during the period of risk. These should not be considered as rigid guidelines in the traditional sense, but rather as a pragmatic perspective on this risk/benefit ratio in specific clinical scenarios. In addition, this advice will not apply to all patients, as there are a number of variables, including the stage of the pandemic and the local health care capacity, the risk of infection to the individual, the status of the cancer, comorbidities, age, and details of the treatment [4]. Here we only focus on the last of these factors.

Minimising potential exposure to COVID-19 by reducing visits to hospital, particularly for intravenous or inpatient therapy, is relevant. This is particularly important during the initial phase of the pandemic, when incidence is increasing exponentially and the upcoming pressure on health care resources is unknown [4]. Predicting the status of health care facilities and the ability to deliver systemic therapy in the future requires consideration. These factors will vary by geographic region.

There are a number of factors that require consideration. Regimens with a clear survival advantage should be prioritised, with curative treatments remaining mandatory and others requiring consideration of the risk/benefit ratio. Treatments that have only shown a palliative effect for patients who are symptomatic require careful discussion. Delaying the start of therapy during periods of uncertainty or difficulty is an appropriate measure for many of the therapies in urology cancer.

For curative treatments, use of growth factors and prophylactic antibiotics should be considered to avoid hospitalisation. Palliative treatments should be given at a dose intensity that avoids febrile neutropenia. While we do not recommend suboptimal dosing, if neutropenia occurs the doses need to be reduced for each episode. Prophylactic antibiotics are recommended where appropriate. Immuno-suppressive agents such as steroids should be avoided or reduced for antiemesis where possible. Prolonged steroid treatment for prostate cancer requires consideration. Agents reducing the incidence of skeletal-related events such as bisphosphonates are probably best postponed if administration of the therapy involves potential exposure to COVID-19 (Table 1).

Adjuvant and neoadjuvant treatments require particular attention. The risk/benefit ratio may favour not giving therapy if the survival benefits are modest or unproven, such as perioperative therapy in urothelial cancer. Conversely, neoadjuvant therapy may be attractive in delaying the need for surgery/radiotherapy in cases in which these services are interrupted.

Aspects of clinical trials may not be appropriate in this pandemic. Recruitment to clinical trials requires careful consideration. Halting recruitment to cancer trials to divert resources to fight the pandemic may be appropriate.

The landscape will change as the risk of infection alters and more is known about preventing and treating COVID-19. In addition, treatments for COVID-19, such as antiviral
agents, may improve outcomes. It is hoped that the advice here will quickly become redundant.

Conflicts of interest: Silke Gillessen Sommer has received honoraria from Janssen; has acted in a consulting or advisory role for Astellas Pharma, Curevac, Novartis, Active Biotech, Bristol-Myers Squibb, Ferring, Janssen, Innocin Pharma, Bayer, Clovis Oncology, and Menarini Silicon Biosystems on an institutional basis and for MaxiVax, Advanced Accelerator Applications, Roche, Sanofi, and Orion Pharma GmbH on a personal basis; holds an interest in a patent for a biomarker method (WO 3752009138392 A1); and has a relevant relationship with Nektar and ProteoMedIX. Thomas Powles has received research funding from AstraZeneca and Roche, and honoraria from AstraZeneca, Bristol-Myers Squibb, Roche, MSD, Pfizer, Merck Serono, Exelexis, IPSEN, Seattle Genetics, Johnson & Johnson, and Ferring.

References

[1] Liang W, Guan W, Chen R, et al. Cancer patients in SARS-CoV-2 infection: a nationwide analysis in China. Lancet Oncol 2020;21:335–7.
[2] Zhou F, Yu T, Du R, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. Lancet 2020;395:1054–62.
[3] Guan WJ, Ni ZY, Hu Y, et al. Clinical characteristics of coronavirus disease 2019 in China. N Engl J Med. In press. https://doi.org/10.1056/NEJMoa2002032.
[4] Anderson RM, Heisterbeek H, Klinkenberg D, Hollingsworth TD. How will country-based mitigation measures influence the course of the COVID-19 epidemic? Lancet. In press. https://doi.org/10.1016/S0140-6736(20)30567-5.