Cancer surgery sustainability in light of COVID-19 pandemic

COVID-19 Pandemic has caused unprecedented pressure on healthcare systems creating a need to conserve critical resources and to provide Personal Protection Equipment (PPE) that is essential for protecting patients/staff from intra-hospital transmission. As new evidence emerges guidelines should be updated.

Cancer patients are at increased risk of contracting the viral infection due to their underlying disease and immunosuppression associated with the treatment. We need to minimise risk of cancer patients contracting the coronavirus and avoiding surgical complications whilst making best use of resources.

There should be plans for cancer services to continue to investigate, treat and deliver care to patients within the SAFE practice framework[1], whilst balancing the resources for the coronavirus response[2]. Plans should include eventualities where cancer services are compromised (e.g. staff/supply shortages) and clinicians need to prioritise treatment using best evidence. Maintenance of weekly tumour board meetings (ideally remotely) is imperative, as decisions should be taken with their involvement and communicated with patients

We acknowledge the trauma the workforce is experiencing and importance of "self-care" and "mental wellbeing".

Phased approach needs to be adaptable and reproducible in different healthcare systems:

1. Safe emergency/urgent Cancer Surgery
    a. Maintain capacity to undertake cancer surgery for urgent cases at acute hospitals (system should allow surgeons to pool theatre capacity/lists/surgical teams to deliver cancer surgery).
    b. Decision making, resource management and process:
        i. Cancer care, emergency surgery and COVID-19 planning need to be balanced. Agreed prioritisation of resources with operational support from management is required.
        ii. Cancer Clinical Lead to coordinate processes of managing patient lists, prioritising theatre access and answering cancer queries from management/others.
    c. Triage systems to be develop which identify cancer patients balancing COVID19 risk and urgency. During pandemic, surgery is not recommended for patients with low chance of success or life prolongation. Clinical priority can be scored as:

Table 1: Categorising patients for surgical cancer treatment

Priority level	Categorisation
1a	Emergency - operation needed within 24 hours to save life. **This should be undertaken on the acute site, as currently.**
1b	Urgent - operation needed with 72 hours. **This should be undertaken on the acute site, as currently.**
2	Elective surgery with the expectation of cure, prioritised to: Surgery within 4 weeks to save life or prevent progression of disease beyond operability. **This should be prioritized for phase 2 (below)**
3	Elective surgery can be delayed for 10-12 weeks with no predicted negative outcome. **This should be prioritized for recovery phase, depending on length of pandemic.**

Table adapted from NHS England's Clinical guide for the management of non-coronavirus patients requiring acute treatment: Cancer 23 March 2020 Version 2 [3].

Decision-making should factor in the patient's co-morbidity and frailty. Patients at highest risk of COVID related morbidity/mortality should ideally be managed at a "COVID-19 free" clean site (see below). All new data being published should be considered when making decisions (e.g. information being published is indicating 20% mortality for patients who develop post-operative COVID-19 pneumonia)[4].

d. Consultant delivered service to reduce the number of people in theatres and thereby to decrease risk by aerosoling.

2. Clean Sites ("COVID-19 free") for Cancer Cases (urgent/advanced) where non-surgical options do not exist:
    a. *"Clean site" ring-fenced* – Deliver well-coordinated cancer surgery through sites for immediate and medium term during the pandemic. These sites should be isolated from COVID-19 patient flow.
    b. *Locations* - Clean sites to be placed regionally to ensuring equality of cancer services.
    c. *Staffing* –COVID-19 screening of staff. Agreed number of staff members "ring-fenced" to work at these sites for infection control purposes.
    d. *Screening and testing* will need to be carried out on all patients being admitted to designated sites; including careful travel and contact history using a questionnaire administered at point of entry (e.g. pre-operative assessment clinic). Patients should self-isolate 1 week before admission. Assessment for COVID-19 symptoms carried out on daily basis for inpatients. Patients developing symptoms should be swabbed and moved to wards for suspected/confirmed cases.
    e. *Environment* - Theatre and ward space needs disinfection and appropriate PPE availability as per guidance.
    f. *Social isolation advice* - Post-operative major cancer surgery patients should follow advice as they fall in this high-risk category.

3. Cancer surgery system Recovery
    a. *Prioritise cancer patients* that need surgery due to being "on-hold" during the COVI-19 outbreak.
    b. *Extra resources* required covering diagnostic services, theatre and critical care capacity to allow delayed cancer treatments to be carried out without further delay. During this time new cancer cases will be presenting as per normal incidence.
    c. *Good practice and innovations* introduced during the crisis need to be maintained.
    d. Healthy workforce important for system recovery.
    e. *Research* should be commissioned looking at the robustness of systems for any future pandemics.

Conclusions

COVID-19 Pandemic has put immense strain on healthcare systems across the globe, but has led to innovation. Surgery, as one of the few curative options for patients with solid organ tumours, needs maintenance. These recommendations may help clinical-leaders to instigate system change required for the pandemic.

695 words (excluding Table and title)

This letter is endorsed by BASO President, Mr Hassan Malik; and ESSO President, Mr Tibor Kovacs; on behalf of the respective societies.

References:

1. https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/C0119-_Maintaining-cancer-services-_-letter-to-trusts.pdf

2. https://baso.org.uk/media/99217/baso_guidance_for_cancer_surgery_9th_april_2020_v7.pdf

3. https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/specialty-guide-acute-treatment-cancer-23-march-2020.pdf

4. https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(20)30075-4/fulltext