COVID-19, National Cancer Grid and Tata Memorial Centre response

C S Pramesh, MS, FRCS
Director, Tata Memorial Hospital
Professor, Thoracic Surgery
prameshcs@tmc.gov.in @cspramesh

Consequences of COVID-19

- Shortage of supplies – masks, PPEs
- Shortage of hospital personnel – quarantine, high-risk, lockdown
- Shortage of beds, ventilators
- Desire to maintain physical distancing

Cancer treatment during COVID-19

- Individualized per institution and patient
- Cannot be prescriptive

Principles

- What stage of the pandemic?
  - Likely trajectory
- Infrastructure available at hospital
- Risk of COVID-19 to patient vs risk of suboptimal treatment for cancer

National Cancer Grid Guidelines for delivery of cancer care in COVID-19

General Principles

- Reducing the risk to patients
- Reducing the healthcare resource utilization
- Identification of suspected cases
- Reducing the risk to HCP

General Principles

- Infection control measures
  - Hand Hygiene
  - Social distancing
  - Cough etiquette
- Avoid overcrowding
  - Rescheduling follow ups
  - Teleconsults
  - Limiting the number of visits

- Screening for fever, sore throat and other symptoms, history of travel and contact – patient and relatives
- Redirecting patients to avoid mixing with the rest
- Calling only relatives for medicine refill/arranging delivery
- Telephonic follow up for compliance
- Rapid consults in OPD area

Staff

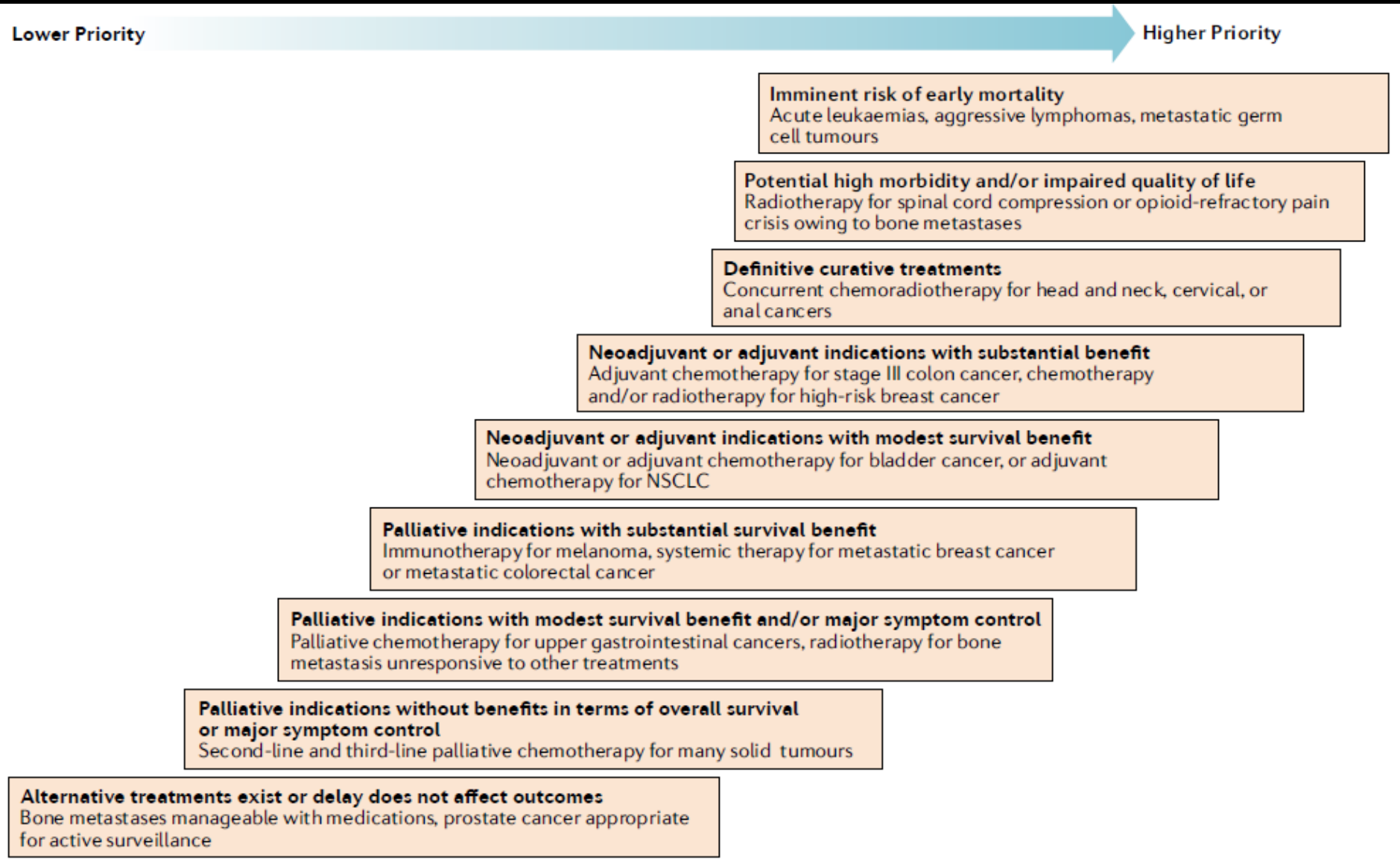
- Identification of those at risk
- Staff sparing
- Work from home – data entry, tele-consults
- Multi-tasking
- Training
  - Infection control measures
  - Appropriate Use of masks, gloves and PPE
  - Waste disposal

Cancer treatment during COVID-19

- Individualized per institution and patient

Principles

- What stage of the pandemic?
  - Likely trajectory
- Infrastructure available at hospital
- Risk of COVID-19 to patient vs risk of suboptimal treatment for cancer



Hanna T E et al; Nat Rev Clin Oncol 2020

Surgery

- Emergency procedures must be given priority
- Cancer surgery not considered elective
- Careful case selection
- Surgeries for cancers with favourable long term outcomes with early treatment should be given priority
- Extensive surgeries to be deferred if possible (risk:benefit)

Surgery

PHASE I – Semi-urgent setting – Preparatory phase

- All emergencies must be attended like tracheostomy, obstruction, bleeding, perforation, sepsis, mechanical respiratory emergencies etc.
- Impending obstructed Gastrointestinal cancer cases
- Cancers requiring frequent transfusions
- Cancers after Neoadjuvant treatment (NACT/NACTRT) with no response to treatment
- Cancers with concern about local perforation and sepsis
- Early stage cancer, where results of surgery are good

Surgery

PHASE II – Urgent setting (Limited Hospital resources)

- Nearly obstructed Gastrointestinal cancer cases, where stenting not feasible. (Diversion surgeries to be done)
- All emergencies must be attended like tracheostomy, obstruction, bleeding, perforation, sepsis, mechanical respiratory emergencies etc.
- Cancers with high transfusions requirements.
- Cancers with concern about local perforation and sepsis

Surgery

PHASE III (Hospital resources are all routed to COVID-19 patients, no ventilator in ICU, OR supplies exhausted, patient in whom death is likely within hours if surgery deferred)

- Cancer cases with concern about perforation, obstruction and bleeding (inpatient transfusion dependent).
- Cancer cases with concern about sepsis
- **All other cases deferred**

Radiation

- Appointments of patients on treatment staggered
- Clinical review while they are awaiting treatment or telephonically to reduce footfalls
- On-board imaging minimized to reduce Rx time.
- Hypo-fractionated schedules in many clinical scenarios (breast, prostate, lung cancer)
- Palliative radiotherapy treatment for symptomatic relief can be delivered in single fraction or weekly once regimens.

Prioritization

- Category 1 –Tumors rapidly proliferating lymphoma, head and neck, lung, cervical cancer, etc.
- Category 2 – Relatively less aggressive breast, prostate, etc.

Prioritization

1. Radical, curative intent RT for category 1 tumours and patients who have already started
2. Urgent palliative RT: e.g. patients with malignant spinal cord compression with salvageable neurological function, SVCO.
3. Radical RT for category 2 tumours; adjuvant radiotherapy for aggressive tumour biology or gross residual disease.
4. Palliative RT, if that would reduce the need for further interventions.
5. Adjuvant RT, if R0 resection and there is a ≤ 20% risk of local recurrence at 10 years.

Chemotherapy

- Use of alternative less myelosuppressive chemotherapy – (single agent/ fewer drugs)
- Lesser frequency
- Consider switching to oral options
- Abbreviated dose and number of cycles
- Omitting maintenance in solid tumours and B-NHL
- Use of GCSF
- Limiting the dose and duration of steroids

Prioritization

1. Curative intent therapy in hematological malignancies
2. Adjuvant chemotherapy if margin of benefit is high (tolerance needs to be considered too)
3. Disease with high- probability of long term disease control
4. Metastatic cancers with high symptom burden and benefit in prolongation of median survival >1 year
5. Adjuvant chemotherapy with marginal benefit
6. Stem cell transplant

The COVID-19 pandemic and the Tata Memorial Centre response

The Tata Memorial Centre COVID-19 Working Group

Tata Memorial Centre, Homi Bhabha National Institute, Mumbai, Maharashtra, India

Correspondence to: C S Pramesh, E-mail: prameshcs@tmc.gov.in

The Tata Memorial Centre COVID-19 Working Group comprises the following:

C S Pramesh, Sudeep Gupta, Sarbani Ghosh Laskar, Manju Sengar, Girish Chinnaswamy, Navin Khattry, Sarita Khobrekar, Sandeep Sawakare, Sumedha Patankar, Vinit Samant, Anil N Sathe, Swapna Joshi, Jigeeshu V Divatia, Sandeep Tandon, Sanjay Biswas, Shraddha Patkar, Nishu Singh Goel, Johnson Lukose, Anand Tiwari, Rajlaxmi Naik, Humayun Jafri, Shalini Jatia, Benny George, Rajendra A Badwe.

The COVID-19 Pandemic and the Tata Memorial Centre Response

The COVID-19 pandemic hit most healthcare providers globally in a way they did not anticipate. In retrospect, this is surprising because the experiences of the Chinese healthcare system should have warned us. However, most assumed that it would never reach global pandemic proportions, and therefore were taken by surprise. The rapidity of transmission (fueled by free international borders) left countries and healthcare systems struggling to cope with

and is a grant-in-aid organization under the Department of Atomic Energy, Government of India. Based in Mumbai, the centre provides treatment and opinions to over 75000 new patients annually, with over 85% of patients hailing from outside Mumbai, and over 60% outside the state of Maharashtra. Consequently, most patients undergoing treatment at the hospital lack strong social and family support in Mumbai. TMC is a specialized hospital treating only patients with cancer. Over 60% of our patients are treated either completely free or at highly subsidized cost.

The TMC response

- Employee directed initiatives
  - Open, transparent communication
  - High-risk employees
  - Staff sparing
- Patient directed initiatives
  - Crowd mitigation strategies
  - Screening stations
  - Tele-consults

The TMC response

- Hospital preparedness
  - SOPs for all COVID-19 related activities
  - Fever Clinic
  - Isolation ward
  - COVID-19 testing
- Handling the national lockdown
  - Staff transport
  - Patients transport, food
  - Hospital hotel – patients, staff

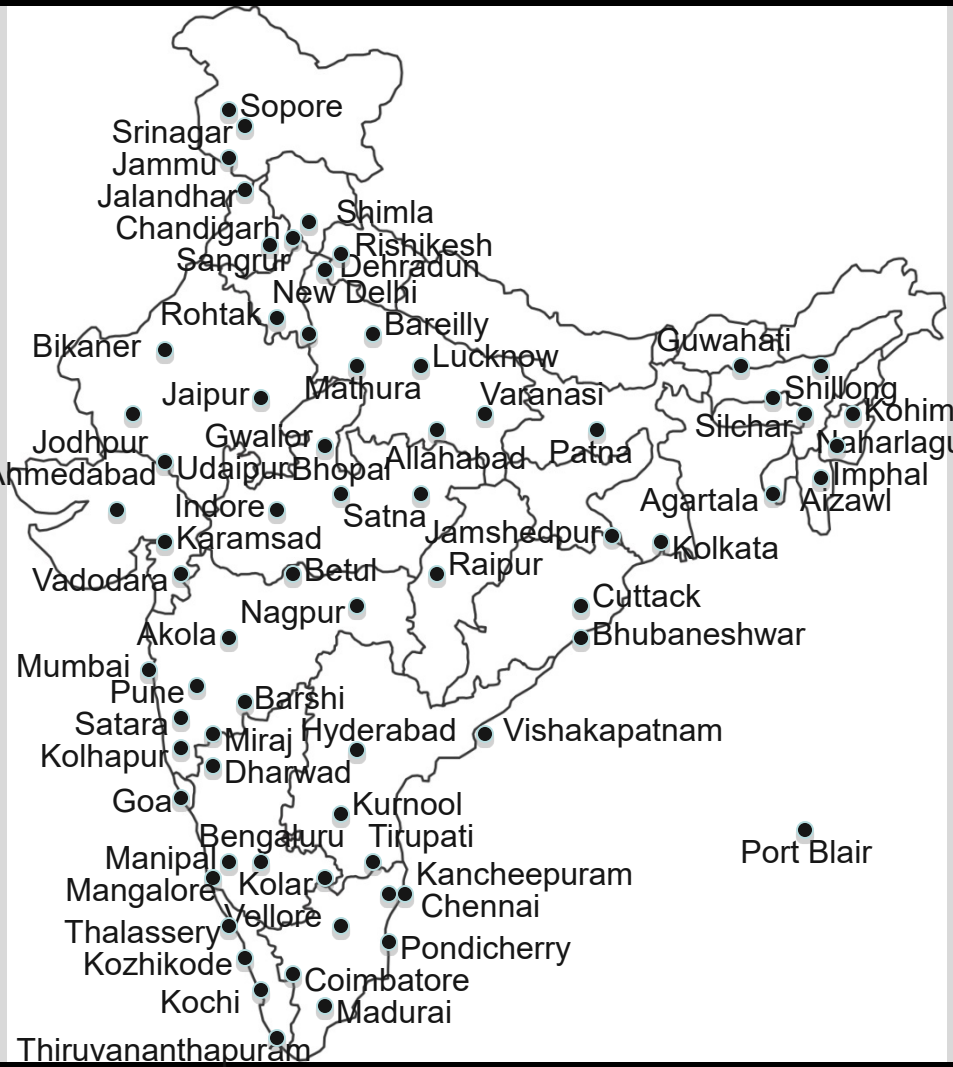
The TMC response

- Supply chain disruptions
  - Last mile transport
  - Group negotiations for PPEs, masks, N95
- Research
  - Low-cost ventilators
  - Reuse of PPEs
- Dissemination – NCG and beyond
  - NCG guidelines
  - Webinars

References

- The Tata Memorial Centre COVID-19 Working Group. The COVID-19 pandemic and the Tata memorial Centre response. Ind J Cancer 2020
- Hanna TP et al. Cancer, COVID-19 and the precautionary principle: prioritizing treatment during a global epidemic. Nat Rev Clin Oncol 2020
- COVID-19 rapid guideline: delivery of systemic anticancer treatments https://www.nice.org.uk/guidance/ng161
- COVID-19 rapid guideline: delivery of radiotherapy https://www.nice.org.uk/guidance/ng162
- Cancer Surgeries in the Time of COVID-19. https://www.surgonc.org/wp-content/uploads/2020/03/COVID-19-Letter-to-Members.pdf

National Cancer Grid



Eliminating disparities in cancer care