

LETTER TO THE EDITOR

Comment on: The COVID-19 pandemic: A rapid global response for children with cancer from SIOP, COG, SIOP-E, SIOP-PODC, IPSO, PROS, CCI, and St Jude Global

To the Editor:

We read with great interest the article on adapting childhood cancer services during the COVID-19 pandemic from global pediatric oncology experts.^{1,2} The document highlights the six most curable cancers with practical advice for their management during the COVID-19 pandemic, and includes adaptations for low- to middle-income countries (LMICs). While we share the broad consensus outlined here, we faced several unique challenges at our hospital—a large tertiary cancer care center in Mumbai, now at the epicenter of the outbreak in India—compelling us to take several steps to mitigate the impact of the pandemic, which may be of benefit to others affected similarly in healthcare settings closer to ours.

The Government of India declared one of the largest and most complete lockdowns in the world on March 25, 2020, which may have had an impact on slowing the first surge of COVID-19. Well before this, our center anticipated a potential cancer-care disaster, located as we are in a population-dense urban setting with overstretched infrastructure and an unparalleled workload of over 60 000 new cases of cancer annually, including nearly 3000 children, more than 95% being from outside Mumbai. Measures were initiated 2 weeks prior to the lockdown aimed at reducing outpatient footfall and conservation of supportive care resources and staff, as already detailed elsewhere.^{3,4}

Within this larger response, we tailored management of pediatric cancers to meet the twin objectives of retaining hard-fought recent improvements in disease outcomes of largely curable malignancies,^{5,6} while balancing resource constraints from disruption of services, and evolving strategies for the inevitable cancer with COVID-19 patient surge. Our priority was to immediately reduce the average of 300 daily outpatient visits to pediatric cancer units by more than 50%. Screening at entrance gates was done by medical teams that dispensed advice and medication for low-risk patients such as those on follow up or maintenance therapies without the patient needing to enter the premises, and they were later followed up telephonically. A comprehensive teleconsult facility was set up to prevent unwarranted visits by those due to follow up in the coming weeks from around the country. We achieved the targeted 50% reduction before the lockdown, which in turn led to travel disruptions preventing new cases reaching us. Despite these measures, 890 active cases were seen in the pediatric


outpatient clinics with over 2900 clinic visits from March 21 to May 1, 2020, including 15 new cases.

To reduce the strain on supportive care resources such as disruptions in blood product supplies, we were able to fall back on several measures that had been successfully used earlier. These included low-cost adaptation of protocols that substituted high-dose methotrexate, and oral metronomic chemotherapy (OMCT) used in curative settings such as maintenance, or as a bridge to definitive therapy, by giving time to ameliorate severe comorbidities or socioeconomic constraints with necessary interventions prior to the standard treatment. These strategies have consistently yielded us acceptable and often excellent outcomes.⁵⁻⁸ We rolled out a comprehensive set of measures including these and similar adaptations, and summarized them for easy reference.⁹ These guidelines helped us to successfully brace for the initial COVID-19 surge, and a brief summary of the first seven cases of childhood cancer from among 59 COVID-19 patients in 5 weeks from the first recorded case seen at our center is included (Table 1). With recent publicly available data showing no signs of the first wave abating in Mumbai and other parts of India, we have updated our guidelines to adapt to the rapidly changing external and internal logistics and pandemic realities.

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TABLE 1 Clinical details and follow up of children with positive COVID-19 test (n = 7)

Serial number	Age (years)	Sex	Diagnosis	Phase of treatment	Disease status	Reason for COVID-19 testing	Symptoms at time of testing	Disease-specific treatment	Treatment for COVID-19	Status at last FU (days since positive test)
1	4	F	SR B-ALL	Induction week 2	Not in remission	Contact	None	Chemotherapy continued	None	Stable (16)
2	13	F	LGG (optic pathway)	Post 2nd-line chemotherapy (due for debulking surgery)	Progressive disease	Contact	None	Surgery awaited	None	Stable (16)
3	1	M	LGG (PA)	Post week 13 VCR-carboplatin	Stable disease	Symptomatic	Fever	Next cycle deferred	Symptomatic	Stable (16)
4	4	M	Undifferentiated sarcoma	Post #3 IVA (induction chemotherapy)	Response scan due	Symptomatic	Fever	Cycle 4 deferred	Symptomatic	Stable (16)
5	7	M	HR B-ALL	Interim maintenance	In remission	Symptomatic	Fever	6-MP continued	Symptomatic	Stable (14)
6	4	F	HR neuroblastoma (postsurgery)	Due for auto-HSCT	Metastatic CR	Symptomatic	Fever	Auto-HSCT awaited	Symptomatic	Stable (11)
7	2	F	HR hepatoblastoma	Post #9 super-PLADO	In remission	Symptomatic	Fever	Next cycle deferral likely	Symptomatic	Stable (5)

Abbreviations: 6-MP, 6-mercaptopurine; B-ALL, B-acute lymphoblastic leukemia; CR, complete remission; FU, follow up; HR, high risk; HSCT, hematopoietic stem cell transplant; IVA, ifosfamide/vincristine/dactinomycin; LGG, low-grade glioma; PA, pilocytic astrocytoma; PLADO, platinum-doxorubicin; SR, standard risk; VCR, vincristine.

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