



WEEKLY EPIDEMIOLOGICAL REPORT

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Ministry of Health, Nutrition & Indigenous Medicine

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The Double Burden: The Impact of COVID-19 on Cancer Diagnosis and Treatment

Global Cancer Burden

Cancer is one of the leading causes of death and disability worldwide, affecting millions of people each year. The rising trend of cancer cases has been significant in recent years, and it is estimated that the global burden of cancer will continue to increase in the coming years. In many countries, cancer is the first or second leading cause of death among people under the age of 70. According to the latest estimates, there were 19.3 million new cancer cases and almost 10.0 million cancer deaths worldwide in 2020. Female breast cancer has surpassed lung cancer as the most diagnosed cancer, with an estimated 2.3 million new cases in 2020, accounting for 11.7% of all new cancer cases. This is followed by lung cancer (11.4%), colorectal cancer (10.0%), prostate cancer (7.3%), and stomach cancer (5.6%).

COVID-19 Impact on cancer burden

The COVID-19 pandemic, caused by the severe acute respiratory syndrome (SARS) coronavirus 2 (SARS-CoV-2), has had a widespread impact on the global population, with nearly one million people infected and over 40,000 deaths worldwide. The virus has affected people of all ages, but older individuals over the age of 65 years and those with comorbidities appear to be at higher risk.

To slow down the spread of the virus and prevent overburdening of the healthcare system, many countries introduced significant public health measures, such as social distancing, lockdowns, and travel restrictions. These measures have been effective in reducing the number of new COVID-19 cases but have also had a significant impact on various aspects including healthcare delivery.

The COVID-19 pandemic has led to adverse outcomes for people diagnosed with cancer.

Cancer patients are particularly vulnerable to the effects of the virus due to the immunosuppressive nature of some cancers and cancer treatments. Cancer treatments such as chemotherapy, radiation therapy, and immunotherapy can weaken the immune system, making it harder for the body to fight off infections. Also, cancer patients may need to visit hospitals and clinics more frequently for their treatments, increasing their risk of exposure to the virus.

Given that, research has shown that the infection rate of the COVID-19 virus, is higher in patients with cancer compared to the general population. Also, they may experience a range of complications, including liver injury, acute respiratory distress syndrome (ARDS), sepsis, myocardial injury, renal insufficiency, and multiple organ dysfunction syndrome (MODS). These complications can be severe and may lead to poorer outcomes for patients with cancer. Some studies revealed that patients with cancer have an increased risk of severe COVID-19 infection and are more likely to require mechanical ventilation and ICU admission compared to patients without cancer with an approximately 3.5-fold increase in the risk of these outcomes. Also, patients who had undergone surgery or chemotherapy in the previous 30 days had a higher risk of severe COVID-19, compared to patients who had not undergone such procedures.

A retrospective study was conducted in Wuhan, China, to assess the risk factors associated with severe events such as admission to the ICU, mechanical ventilation, or death among cancer patients diagnosed with COVID-19. This study found that cancer patients who received cancer treatment within 14 days of being diagnosed with COVID-19 had a higher risk of developing severe events. Among that study population, 28.6% of patients developed acute respiratory distress syndrome, 3.6% of patients developed septic shock and 3.6% of patients developed acute myocardial infarction. One interesting

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finding of the study was that one-third of study participants acquired the infection while they were in hospitals and due to nosocomial transmission. So this highlights the importance of stringent infection control measures in healthcare settings. In the United Kingdom, a national population-based modelling study was conducted to assess the delay in diagnosis on cancer survival outcomes in main 4 tumour types: breast cancer, colorectal cancer, lung cancer, and oesophageal cancer. The study compared mortality data during the pandemic with pre-pandemic data and found that under three different scenarios, there was an estimated 7.9-9.6% increase in the number of deaths due to breast cancer, 15.3-16.6% increase in deaths due to colorectal cancers 8-5.3% increase in deaths due to lung cancers and 5.8-6.0% increase in deaths due to oesophageal cancers up to 5 years after diagnosis. Finally, the study highlights the potential impact of the COVID-19 pandemic on cancer care and the need for healthcare systems to develop strategies to mitigate the effects of pandemic-related disruptions on cancer outcomes.

Additionally, they may face increased health risks due to the impact of public health measures on cancer care delivery. For example, many cancer patients have experienced delays in diagnosis due to disrupted screening programs and diagnostic services, as concerns about exposure to the virus in healthcare settings. That allows the disease to progress to later stages and get more complicated. In addition, the pandemic has also resulted in a decrease in access to cancer treatments, which can further exacerbate the negative effects of delayed cancer diagnosis and resulted in poor outcomes.

Due to the COVID-19 pandemic, many treatment pathways for cancer patients have been changed to minimize exposure to the COVID-19 virus. For example, some hospitals and clinics have implemented measures such as telemedicine consultations, remote monitoring, and reduced in-person visits. In addition, surgical and radiation therapy procedures may be postponed or modified to reduce the risk of exposure to the virus.

Due to the increased demand for healthcare resources and personnel during the COVID-19 pandemic, many health systems have had to prioritize their efforts towards responding to the pandemic and caring for patients with COVID-19. This has resulted in some patients with chronic conditions, such as cancer, experiencing delays in their ongoing care and treatment. These delays in care can result in a loss of progress in treatment, the progression of the disease, and a higher risk of complications.

Also, the stress and anxiety caused by the pandemic and its impact on daily life have had a significant impact on the mental health of cancer patients and their families.

Clinical Guidelines

Numerous clinical resources have been published in recent times to guide cancer patients, healthcare professionals, and cancer centres on the appropriate measures to prevent and manage COVID-19. These clinical resources include guidelines and recommendations that have been developed by various organizations, such as the World Health Organization, the Centers for Disease Control and Prevention, the National Comprehensive Cancer Network, and the National Institute for Health and Care Excellence (NICE). These guidelines aim to provide evidence-based recommendations for the prevention, diagnosis, and management of COVID-19 in cancer patients. The guidelines cover a wide range of topics, including strate-

gies for minimizing the risk of exposure to COVID-19, recommendations for COVID-19 testing in cancer patients, and guidance on the management of COVID-19 in cancer patients with different stages of the disease and different treatment regimens.

Management and Recommendation

The decision to continue cancer therapy or to stop it during the COVID-19 pandemic is still a subject of debate, and more clinical trials are needed to better understand the risks and benefits of continuing or delaying cancer treatment in the context of the pandemic.

In some solid tumours and hematologic cancers, timely diagnosis and treatment are critical, and delaying cancer treatment may not be a safe option. However, in early-stage diseases such as breast, prostate, cervical, and nonmelanoma skin cancers, delaying cancer treatment may be considered in high-risk patients during the pandemic.

Ultimately, the decision to continue or delay cancer treatment should be based on a careful assessment of the risks and benefits for each patient, considering factors such as the stage of cancer, the patient's overall health status, and the risk of COVID-19 infection. As more data and evidence become available, healthcare professionals and cancer centres will be better equipped to make informed decisions and recommendations regarding cancer care during the pandemic.

Compiled by

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Source:

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Table 1: Selected notifiable diseases reported by Medical Officers of Health 04th-10th Mar 2023 (10th Week)

RDHS	Dengue Fever		Dysentery		Encephaliti		Enteric Fever		Food Poi-		Leptospirosis		Typhus		Viral Hep-		Human		Chickenpox		Meningitis		Leishmania-		WRCD		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	T*	C**	
Colombo	234	3161	0	3	2	6	0	1	0	6	7	43	0	0	0	2	0	0	0	7	45	0	5	0	3	19	94
Gampaha	153	3043	0	3	1	6	0	1	1	1	7	66	0	0	2	6	0	0	1	52	0	23	0	8	1	93	
Kalutara	47	856	0	5	0	1	0	0	3	9	76	0	1	0	1	0	1	1	10	63	1	18	0	1	5	73	
Kandy	54	669	0	7	0	0	0	1	0	1	5	42	2	19	0	1	0	0	6	62	0	4	1	11	68	100	
Matale	11	243	0	1	0	0	0	1	0	1	1	20	0	1	0	2	0	0	0	12	0	2	6	64	28	95	
NuwareEliya	3	43	0	13	0	0	0	0	2	7	1	21	0	16	0	0	0	0	3	28	0	3	0	0	45	91	
Galle	41	416	0	8	0	1	0	0	5	16	117	1	18	0	0	0	0	0	11	84	1	2	0	0	27	100	
Hambantota	28	230	0	0	0	0	0	0	4	8	50	2	31	0	8	0	0	0	4	32	0	5	7	89	34	99	
Matarra	36	378	1	7	0	2	0	0	3	16	95	1	8	0	2	0	0	0	4	55	1	6	3	31	48	100	
Jaffna	69	821	4	15	0	1	1	5	1	6	4	25	343	0	0	0	1	1	25	56	0	0	1	1	54	93	
Kilinochchi	2	37	0	2	0	0	0	0	0	0	4	4	0	2	0	0	0	0	2	4	0	0	0	0	15	100	
Mannar	1	27	0	4	0	0	0	0	0	0	1	15	0	3	0	0	0	0	0	0	0	2	0	0	15	80	
Vavuniya	5	37	0	5	0	1	0	0	0	0	1	11	1	6	0	1	0	0	0	6	0	1	0	0	0	95	
Mullaitivu	2	19	0	6	0	0	0	0	6	0	3	0	3	0	0	0	0	0	0	2	0	0	0	0	14	95	
Batticaloa	66	473	4	53	0	5	1	3	0	6	1	19	0	0	0	1	0	0	0	17	1	9	0	0	40	100	
Ampara	0	38	0	1	0	1	0	0	0	0	0	11	0	0	0	1	0	0	1	16	1	6	0	2	14	81	
Trincomalee	51	420	0	3	0	0	0	0	2	3	15	0	5	0	0	0	0	0	2	12	0	3	0	1	22	98	
Kurunegala	38	674	0	10	0	4	0	0	0	0	2	52	0	7	0	3	0	0	5	121	5	35	5	88	20	98	
Puttalam	43	1710	2	2	0	0	0	0	0	0	1	9	0	6	1	1	0	0	1	23	1	11	0	3	15	95	
Anuradhapur	13	126	0	1	0	0	0	1	0	1	2	85	4	21	0	1	0	0	13	63	1	8	14	114	19	99	
Polonnaruwa	14	182	0	3	0	2	0	0	0	6	2	38	1	4	2	5	0	0	1	18	0	8	6	100	25	89	
Badulla	22	339	1	9	0	2	0	0	4	0	5	75	1	7	4	27	0	0	8	36	0	5	0	7	55	100	
Monaragala	2	95	0	5	0	0	0	0	0	0	5	83	1	12	1	6	0	0	0	16	0	23	0	34	19	100	
Ratnapura	41	447	0	8	0	4	0	1	0	6	20	199	2	11	0	6	0	0	5	25	6	49	9	43	33	99	
Kegalle	48	567	0	1	0	0	0	0	2	11	74	1	8	0	1	0	0	0	11	96	0	9	1	8	26	100	
Kalmune	33	965	0	18	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	9	1	8	0	0	33	99	
SRI LANKA	105	16016	12	193	3	36	2	14	6	71	12	1237	42	532	10	75	0	2	12	953	19	245	53	608	30	96	

Source: Weekly Returns of Communicable Diseases (esurveillance.epid.gov.lk). T=Timeliness refers to returns received on or before 10th Mar, 2023. Total number of reporting units 358. Number of reporting units data provided for the current week: 309. C**=Completeness

Table 2: Vaccine-Preventable Diseases & AFP

04th– 10th Mar 2023(10th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2023	Number of cases during same week in 2022	Total number of cases to date in 2023	Total number of cases to date in 2022	Difference between the number of cases to date in 2023 & 2022
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	01	00	00	00	00	00	00	00	00	01	03	18	17	5.88 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	01	01	00	01	01	02	00	00	00	06	02	40	08	400 %
Measles	00	00	00	00	01	00	00	00	00	01	00	07	07	0 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Tetanus	00	00	00	00	00	00	00	00	00	00	00	01	01	0 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Japanese Encephalitis	00	00	00	00	00	00	00	00	00	00	00	00	01	0 %
Whooping Cough	00	00	00	00	00	00	00	00	01	01	00	02	00	0 %
Tuberculosis	76	09	18	02	09	00	09	11	11	145	61	1658	1336	24.1 %

Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.
RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna, KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam, AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:
Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS,
Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis
CRS** =Congenital Rubella Syndrome
NA = Not Available

Seek medical advice if you get a fever after exposure to muddy water or soil.

It could be Leptospirosis.

Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@slt.net.lk. **Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication**

ON STATE SERVICE

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