

GOVERNMENT OF INDIA  
DEPARTMENT OF ATOMIC ENERGY  
**LOK SABHA**  
**UNSTARRED QUESTION NO-260**  
ANSWERED ON- 24/07/2024

**HIGH QUALITY CANCER CARE**

260. SHRI BRIJMOHAN AGRAWAL

Will the PRIME MINISTER be pleased to state:-

- (a) the details of the specific measures being taken to ensure that patients receive high-quality cancer care at affordable cost;
- (b) the details of the specific research outputs introduced in the field of cancer care during the last four years; and
- (c) the details of the manner in which the National Cancer Grid is involved in cancer care, along with a list of centres, research institutes, etc., State-wise?

**ANSWER**

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS  
AND PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH)

- (a) The details of specific measures being implemented by TMC to ensure that patients receive high-quality cancer care are as below:

Tata Memorial Centre (TMC) an aided institute under the aegis of Department of Atomic Energy, has been providing high quality cancer care at an affordable cost by following unique model of 60:40 ratio under which 60% patients received treatment at highly subsidized or almost free treatment and rest 40% are private patient pay for their care. The rates for even the private patients are low compared with the rates as charged by the private hospitals in the country.

- 1) Resource stratified guidelines for management of cancers based on the cost-effectiveness and infrastructure availability.
- 2) The guidelines are linked with Ayushman Bharat Pradhan Mantri Jan Arogya Yojna (AB-PMJAY) to ensure quality of care delivery to the AB-PMJAY beneficiaries.

- 3) Standardisation of diagnosis by National Cancer Grid (NCG) surgical pathology quality-assurance program, which helps ensuring correct diagnosis at all the participating centres.
  - 4) Quality improvement programme, which train the centres in improving quality of all the care pathways.
  - 5) Group negotiation for all the high-value anticancer drugs resulting in a median 82% price reduction leading to improvement in access and affordability of drugs.
  - 6) Training of health-care professionals including nurses, pathologists and technicians from across the country to deliver high quality cancer care.
  - 7) Virtual Tumour Boards to provide inputs on diagnosis and treatment from a multidisciplinary team of cancer experts for all the complex cancer cases at any of the cancer centres at any location.
- (b) The details of the specific research outputs introduced by TMC in the field of cancer care over the past four years is as below:-
- 1) Optimization of treatment of childhood acute lymphoblastic leukemia to increase cure rates - the largest trial done till date anywhere in the world.
  - 2) Repurposing of drugs (aspirin, metformin and curcumin) to provide cost-effective treatment options for common cancers.
  - 3) Training the early career oncologists in conducting high-quality cancer research. Till date more than 400 oncologists have been trained.
  - 4) Effect of Peri-tumoral Infiltration of Local Anaesthetic: A major randomized controlled trial (RCT) conducted by TMC with a simple intervention of injecting local anesthesia around the breast tumor prior to surgery increased the cure rates by 26%. Expected to save 1,00,000 lives annually.
  - 5) TMC has undertaken a study i.e. 'TMC Study - Platinum in TNBC' presented at the San Antonio Breast Cancer Symposium in Texas, which is the largest and most important breast cancer conference in the world proving that an inexpensive drug called platinum improves the cure rate in breast cancer.
  - 6) The large yoga randomized clinical trial proved that Yoga increases the quality-of-life and cure rates in women with breast cancer with 15% relative improvement

in Disease-free Survival (DFS) and 14% in Overall Survival (OS) after yoga intervention (Nair NS, et al).

- 7) CAR T-cell therapy:
  - i. Collaboration between TMC and IIT (B) to develop the first indigenous CAR T Cell Therapy Product.
  - ii. The first CAR-T Cell therapy for a patient of acute Lymphoblastic leukemia in India was performed on June 4, 2021 at ACTREC.
  - iii. The first CAR T Cell Therapy for a patient of lymphoma was performed on June 21, 2021 in TMH.
  - iv. The above 2 trials led to approval and commercialization of the indigenously developed CAR T product from DCGI in December 2023.
  
- 8) Low dose Immunotherapy: Immunotherapy regimens for the treatment of advanced Head & Neck Cancers are accessible to only 1% to 3% patients because of their high cost. Researchers at TMC have developed a low dose immunotherapy regimen which improves outcomes and quality of life. This has brought the cost of treatment down from Rs. 60 to 70 Lacs per year to below 5 Lacs per year. This was proved in a first ever randomized study and had a podium presentation at Annual ASCO Meeting in USA and is now considered as an alternative standard of care for those who cannot access full dose. It has also opened doors to investigate low dose immunotherapy for other cancers.
  
- 9) Nutraceutical 'AKTOCYTE': Launch of Nutraceutical 'AKTOCYTE' by the Department of Atomic Energy Set to Transform Cancer Care. The Department of Atomic Energy in collaboration with M/s. IDRS Labs Pvt. Ltd. Bengaluru has launched a Food Supplement/Nutraceutical AKTOCYTE which is aimed at enhancing the quality of life for cancer patients undergoing radiotherapy.

AKTOCYTE has received approval from the Food Safety and Standards Authority of India (FSSAI), which have shown remarkable results, particularly in pelvic cancer patients suffering from radiotherapy-induced side effects. This

product will be a landmark contribution towards affordable cancer care in India and the AKTOCYTE tablets will now be available in the market. The development of AKTOCYTE tablets is supported by decades of scientific research at DAE.

- (c) The National Cancer Grid (NCG) was created in 2012 with the broad vision of delivering high-quality and uniform standard of cancer care to all the patients across India. Now the NCG has grown to a large network of 340 cancer centres, research institutes, patient advocacy groups, charitable organizations and professional societies. Between the member organizations of the NCG, the network treats over 850,000 new patients with cancer annually, which is about 60% of all of India's cancer burden. Incorporating all stakeholders of cancer care in India, it is a strong, unified and powerful voice in the fight against cancer.
- 1) Expansion of the network from 17 centres to 320 centres across all the States and Union Territories (state-wise list at <https://ncgindia.org>).
  - 2) Establishment of Koita Centre of digital oncology (funded by a Charitable Foundation) to leverage digital technologies to improve cancer care from prevention to treatment. This is in complete alignment with Ayushman Bharat Digital Mission.
  - 3) Integrated data collection & aggregation - a “National Cancer Database to guide all the cancer policies and national cancer control plan. Initial databases established for five common cancers.
  - 4) Partnering with digital tech companies to deliver cancer care near to patient’s home.
  - 5) Initiation of national tumor tissue biobank across NCG to understand the cancer causation, identification and development of new anticancer treatment and preventive technologies.

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