

## **Cancer Treatment Challenges before India**

### **Why in news?**

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Nobel Prize for Medicine 2018 was given to path-breaking discoveries that led to the latest advances in cancer therapy.

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### **What is noble prize for medicine all about?**

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- Alfred Nobel in his last will and testament, specifically designated the institutions responsible for the prizes he wished to be established.

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- By which Karolinska Institute in Sweden is responsible for awarding Nobel Prize in Physiology or Medicine.

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- Per the provisions of the will, only select persons are eligible to nominate individuals for the award.

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- These include members of academies around the world, professors of medicine in Sweden, Denmark, Norway, Iceland, and Finland, as well as professors of selected universities and research institutions in other countries.

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- The Nobel Assembly consisting of 50 professors at Karolinska Institute will elects the Nobel Committee with 5 members who evaluate the nominees.

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- Under 1968, provision of noble prize committee no more than three persons may share a Nobel Prize.

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- 2018 Nobel Prize for medicine was shared by US scientist James P Allison and his Japanese peer Tasuku Honjo.

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## **What is the significance of recent discovery?**

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- The recent research was on proteins that prevented the body's immune system from effectively attacking cancer cells.

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- The researchers believe that, if these brakes on the immune system are removed, rogue cells can be efficiently tackled.

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- The recent research led to the development of a new class of immunotherapy agents, also called checkpoint inhibitors.

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- This is touted as the most important advance against cancer since the advent of chemotherapy in the 1940s.

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- The drugs derived from the work is already available in the market, but this is an expensive form of treatment and used mainly in terminal stage cancers.

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## **What is the status of cancer in India?**

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- According to the Indian Council of Medical Research, annual cancer deaths, now at 7.3 lakh, are set to increase by another 20 per cent to 8.8 lakh by 2020.

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- The number of new cases each year is expected to touch 17.3 lakh by 2020.

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- The National Cancer Registry Programme, started in the early 80s, maintains registries of 23 different cancers, generating valuable data for collaborative research.

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## **What are the challenges before India in treating cancer?**

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- Although medical science has been able to reduce mortality from cancers significantly, the beneficiaries have largely hailed from the rich countries.  
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- In India, most cancer research is carried out in tertiary cancer centres and specialised institutions of biomedical science, against well-developed cancer research networks in high-income countries.  
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- The rising burden of cancer in India acts as a major drain on research time, particularly for clinical staff.  
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- According to estimates, there are only 2,000 cancer specialists in India for 10 million patients.  
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- Besides, infrastructure to support cancer research has a long way to go.  
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- With the cost of treatment forbidding and most of India's health spend not covered by health insurance, cancer not only kills but also drives families into poverty and debt.  
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**Source: Business Line**

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