Cancer Registry

It is an organization which performs cancer registration by systematic collection, storage, analysis, interpretation & reporting of data on subjects with cancer.

Main objectives:

- To collect & classify information on all cancer cases, in order to produce statistics on the occurrence of cancer in a defined population.

- To provide a framework for assessing & controlling the impact of cancer on the community.

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Cancer Registry
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Hospital-based             Population-based
Cancer  Registry.           Cancer  Registry.
   (HBCR)                       (PBCR)
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Hospital-based Cancer Registry (HBCR):

- ► It is located in a hospital & is concerned only with the recording of information on the patients with cancer seen in the hospital.
- ► It serves the needs of hospital administration / its cancer programme & of the individual cancer patient.
- ► Its main purpose is to contribute to patient care by providing readily accessible information on the patients with cancer / the treatment which they received & its results.
- ► The data are used for administrative purpose & for clinical performance.

Population-based Cancer Registry (PBCR):

The main sources of information include:

a) Information from treatment facilities (Cancer centres, major hospitals, private clinics, hospices, home for elderly & general practitioner).

b) Information from diagnostic services – specially pathology laboratories, but also from hematological / biochemical / immunological laboratories, X-ray & imaging clinics.

c) Death certificates from the death registration system are also a very important source of information.

Information Collection:

- Active collection involves registry personnel actually visiting the different sources & abstracting the data on special forms. This is the usual method in registries in developing countries.
- Passive reporting involves health care workers completing the notification forms – developed & distributed by the registry or sending copies of discharge certificates.
- A mixture of both procedures, with the emphasis on the latter, is followed in most western registries.

Sample data items:

- Registration no: If a patient has more than one primary tumour, the same number is given to each tumour.
- Incidence date: Date of first consultation or admission to a hospital / clinc for cancer. If this information is not avilable, use the date of first diagnosis by a physician or the first pathology report.
- Most valid basis of diagnosis: The minimum requirement is differentiation between microscopic & non-microscopic confirmation – to assess the reliability of incidence rates.
- Topography (Site of Primary tumour) & morphology (Histologic type) is described by ICD-O (International code of disease-oncology).
- Clinical extent of disease before treatment.
- Details of initial treatment.
- Outcome in terms of follow-up

Uses of cancer registry data:

- Epidemiology:

Descriptive.	Analytical.
Incidence rate.	Cohort studies.
Personal characteristics.	Case-control studies.
Place of residence.	Correlation (ecological) studies.
Time trend.	
Migrant studies.	

- Planning of Cancer Control programmes.
- Evaluation of Cancer Control programmes:

a) Primary prevention.
b) Screening & early detection – Lead time, Length & Selection or volunteer – 3 biases associated.
c) Treatment.

Cancer Registry: World scenario:

- ► The International Association of Cancer Registries (IACR), a non-government organization, in collaboration with WHO, has been providing a link between cancer registries situated in different countries since 1979.
- ► IACR is being presently supported by International Agency for Research on Cancer (IARC), situated in Lyon, France.

Cancer Registry: Indian scenario:

- ► The impetus for cancer registration in India was provided in 1982, through the initiation of National Cancer Registry Programme (NCRP) by Indian Council of Medical Research (ICMR).

- ► The Principal objectives of NCRP:
  1. To generate authentic data on the magnitude of cancer problem.
  2. To undertake epidemiological investigation.
  3. To advice control measures.
  4. To promote human resource development in cancer epidemiology**.**

- ► Started in 1982 with 3 PBCRs (Bombay, Bangalore & Madras) & 3 HBCRs (Chandigarh, Dibrugarh & Trivandrum).
- ► First rural based PBCR started at Barshi (Maharastra) in 1987 & then at Panchamahal (Gujarat) in 1994.

Cancer Registry: Bengal scenario:

CNCI (partially supported by IARC, Lyon) in collaboration with CCWH, Thakurpukur started PBCR for Kolkata in 1997.

Epidemiology of cancer in India:

Among urban males, the commonest cancer is Ca.Lung (around 12-14%)followed by Ca.Head and Neck (around 9-10%), except Chennai and Bangalore, where the commonest cancer is Ca. Stomach followed by Ca. Lung and Ca. Head & Neck.

Among urban females, the commonest cancer is Ca.Breast (around 30%) followed by Ca.Cervix (around 20%) and Ca.Ovary (around 10%) except in Chennai, where the commonest cancer is Ca. Cervix followed by Ca. Breast and Ca.Ovary.

Among rural males (Barshi PBCR), the 3 commonest cancers are Ca.Hypopharynx, Ca. Liver and Ca. Oesophagus.
Among rural females (Barshi PBCR), the 3 commonest cancers are Ca.Cervix, Ca. Breast and Ca.Oesophagus.

Epidemiology of cancer in Kolkata:

In Kolkata, the commonest cancers in males are Ca. Lung (19%) and Ca.Head & Neck (20%) and in females are Ca.Breast (25%), Ca. Cervix (20%) and Ca.GB (8%).