

CERTIFIED FELLOWSHIP IN PREVENTIVE ONCOLOGY

[Syllabus Approved by Board of Studies, Medical & Health Sciences]

Programme Code	:	HLTH14A19
Programme Details	:	2-YEARS HBNI CERTIFIED FELLOWSHIP IN PREVENTIVE ONCOLOGY
Programme Learning Outcomes (PLOs / PSOs)	:	MENTIONED [COMMON FOR ALL 2 YRS HBNI CERTIFIED FELLOWSHIPS OFFERED AT TMC]
Eligibility Criteria	:	MD IN COMMUNITY MEDICINE / PREVENTIVE & SOCIAL MEDICINE / OBSTETRICS AND GYNECOLOGY.
Duration of the Course	:	2 YEARS
Programme Structure (Credit-Based)	:	NA
Detailed Course Syllabus	:	ATTACHED
Teaching–Learning Methodologies	:	2 YEARS PROGRAM
Examination & Evaluation System	:	ANNUAL APPRAISAL FOLLOWED BY UNIVERSITY FINAL EXAMINATION
Internship / Project / Dissertation Guidelines	:	NA
Program In Charge	:	PROF. SHARMILA PIMPLE (pimplesa@tmc.gov.in)

CERTIFIED FELLOWSHIP (PREVENTIVE ONCOLOGY)

Programme Code: HLTH14A19

Programme Outcome:

- The HBNI Fellowship Programmes at Tata Memorial Centre are designed to develop competent, ethical, and academically oriented healthcare professionals with advanced knowledge and skills in their respective specialties and subspecialties.
- At the completion of the fellowship, candidates are expected to demonstrate excellence in clinical practice, patient-centered care, multidisciplinary teamwork, communication, professionalism, and evidence-based decision-making.
- Fellows shall acquire the ability to independently evaluate, diagnose, plan, and manage patients while adhering to institutional protocols, quality standards, patient safety practices, and ethical principles in healthcare delivery.
- The fellowship programmes also aim to foster academic growth, research aptitude, lifelong learning, and leadership qualities among trainees.
- Fellows are expected to actively participate in teaching, seminars, journal clubs, conferences, audits, and research activities, thereby contributing to the advancement of medical science and institutional development.
- Upon successful completion of the programme, the fellow should be capable of functioning independently as a skilled specialist/subspecialist with competence in clinical services, academics, research, and collaborative healthcare practice in tertiary care and oncology-focused settings.

**CURRICULUM FELLOWSHIP PROGRAMME
IN EPIDEMIOLOGY & PREVENTIVE ONCOLOGY**

I. Epidemiology Modules		Hours	Marks
Theory			
1.	Practical consideration for conducting studies	5	50
2.	Cancer Epidemiology	5	30
3.	Biostatistics	25	300
4.	Epidemiology Part I	15	150
5.	Epidemiology Part II	8	150
6.	Clinical Trials	6	30
7.	Cancer Registries	3	20
Optional			
8.	Seminars on use of biological samples in Epidemiological		
9.	Seminar on Bioinformatic		
10.	Effective lectures Hrs	40	400
Total Marks			730
Module I			
II. PO Modules		Hours	Marks
1.	Epidemiology, Prevention & Screening of Cervix Cancer	10	100
2.	Epidemiology & Screening for Breast Cancer	10	100
3.	Epidemiology, Prevention & Screening of Oral Cancers	10	100
4.	Tobacco Control Tobacco Cessation	10	100
5.	Other High risk cancers Prevention & Early detection module	2	20
6.	Basic principle of Screening in Public Health	2	20
7.	Comprehensive Cancer Control & Prevention	2	20
8.	NCCP – Structure, Organization Objective, Functions	2	20
9.	Global & India perspective on Cancer Control	2	20
10.	IEC (Information / Education & Communication) in Cancer Control & Prevention	2	20

11.	Evidence based practice of Public Health programmes in cancer prevention & early detection	5	50
Total Marks		57	570
III. Practical Orientation: 400 hrs / year			
A)	Hospital & Community based Practice		
1.	Hospital based activities for cancer programme		100
2.	Community based cancer programmes		100
3.	Tobacco Cessation Clinic		50
4.	Community base Health Promotion Activities		50
5.	Initiative in Cancer Control & Prevention		50
B)	Clinical Work		
1.	Case Presentation / Studies		50
2.	Hospital Based Cancer Screening OPD		50
Total Marks			450
IV. SEMINARS			
1.	Presentation of Original Research papers / Systematic Review / Meta analysis – 2 per year	10	100
2.	Special Lectures / Workshops / CME – 2 per year	5	50
Total Marks			150
V. VIVA VOCE		10	100
Grand Total (I+ II + III + IV + V)			2000

I. Epidemiology Modules

- **Theory**
 - **Practical consideration for conducting studies**
 1. Pub med searching and basics of scientific writing
 2. GCP
 3. Quality assurance in Epidemiological studies
 4. Ethical consideration

 - **Cancer Epidemiology**
 1. Distribution of cancer
 2. Tobacco and cancer
 3. Infection and cancer
 4. Nutrition and cancer
 5. Gene-Environment and cancer
 6. Other causes

 - **Biostatistics**
 1. Data presentation
 2. Numerical summary measures
 3. Probability
 4. Theoretical probability distribution
 5. Confidence interval
 6. Hypothesis testing
 7. Comparison of two means
 8. Analysis of variance
 9. Non parametric methods
 10. Inference on proportion
 11. Contingency tables
 12. Multiple 2X2 tables
 13. Introduction to statistical software -1
 14. Introduction to statistical software – 2
 15. Corelation
 16. Simple linear regression

17. Logistic regression
18. Survival analysis – 1
19. Survival analysis – 2
20. Sampling theory

- **Epidemiology Part I**

1. Basic concepts – 1
2. Basic concepts – 2
3. Study designs
4. Descriptive studies
5. Intervention trial
6. Cohort studies
7. Case-control studies
8. Bias & confounding
9. Interaction
10. Exposure assessment
11. Epidemiological field work in population based studies
12. Sample size determination
13. General principle of data analysis
14. Workshop: International workshop at Hyderabad

- **Epidemiology Part II**

1. Regression methods used in cancer Epidemiology – 1: General
2. Analysis of data using log linear models
3. Analysis of data using logistic regression
4. Statistical interaction
5. Model checking
6. Meta analysis
7. UICC workshop on advanced statistical methods in cancer

- **Clinical Trials**

1. Evidence Based Medicine: Introduction

2. Study designs options in clinical trials
3. Sample size determination
4. Likelihood ratio
5. Systematic reviews
6. Ethical issues in clinical trials
7. EBM workshop at TMH

- **Cancer Registries**

1. Types of registries and their operation
2. Analysis of registry data
3. Methods of follow up
4. Visit to PBCR, Mumbai

- **Optional**

- **Seminars on use of biological samples in Epidemiological research**

1. Storage and collection of biological samples in large scale studies
2. Use of advanced instruments – 1
3. Use of advanced instruments – 2

- **Seminar on Bioinformatic**

1. Basics of bioinformatics
2. Introduction to data bases and sequence analysis
3. Bioinformatics in drug design
4. Molecular modeling

- **Effective lectures Hrs 40/Marks 400**

1. Methods for time trends and prediction
2. Molecular Epidemiology
3. Nutrition Epidemiology

II. PO Modules

▪ **Epidemiology, Prevention & Screening of Cervix Cancer**

1. Epidemiology of Cervical cancer
2. Prevention and Control Public Health Aspect
3. Pathophysiology of Cervical cancer
4. Screening of Cervical cancer
5. Colposcopy
6. Diagnostic Procedures
7. Treatment modalities for Cervical cancer
8. Role of HPV Vaccine in Cervical cancer
9. Recommendable guidelines for screening
10. Practical Module

▪ **Epidemiology & Screening for Breast Cancer**

1. Epidemiology of Breast cancer
2. Anatomy of Breast and Risk factors of Breast cancer
3. Clinical manifestations of Breast cancer
4. Breast cancer screening
5. Diagnostic Investigations
6. Practical Module

▪ **Epidemiology, Prevention & Screening of Oral Cancers**

1. Epidemiology of Oral cancer
2. Risk factors of Oral cancer
3. Clinical manifestations (Oral Pre-cancerous lesions)
4. Oral cancer screening and diagnosis
5. Management of Oral pre cancers
6. Practical Module

▪ **Tobacco Control**

1. History of tobacco in India
2. Practices and prevalence of tobacco use in India
3. Ecological, environmental and economic effects of tobacco use

4. Framework Convention on Tobacco Control(FCTC) and Global strategies for tobacco control
5. History of tobacco control in India
6. Challenges for tobacco control in India
7. Clinic based tobacco control
8. Community based tobacco control

▪ **Tobacco Cessation**

1. Problem of tobacco dependence
 - a. Reasons for using tobacco
 - b. Reasons for continuing tobacco use
2. Need for cessation
3. The process of change
4. Assessment of tobacco user
5. Counseling interventions provided
6. Pharmacotherapy
7. Clinic based tobacco cessation
8. Community based tobacco cessation – general guidelines

III. Practical Orientation: 400hrs/year

- Other High risk cancers Prevention & Early detection module
- Basic principle of Screening in Public Health
- Comprehensive Cancer Control & Prevention
- NCCP – Structure, Organization Objective, Functions
- Global & India perspective on Cancer Control
- IEC (Information / Education & Communication) in Cancer Control & Prevention
- Evidence based practice of Public Health programmes in cancer prevention & early detection

A) Hospital & Community based Practice

1. Hospital based activities for cancer programme
2. Community based cancer programmes
3. Tobacco Cessation Clinic
4. Community base Health Promotion Activities
5. Initiative in Cancer Control & Prevention

B) Clinical Work

1. Case Presentation / Studies
2. Hospital Based Cancer Screening OPD

IV. SEMINARS

1. Presentation of Original Research papers / Systematic Review / Meta analysis – 2 per year
2. Special Lectures / Workshops / CME – 2 per year

V. VIVA VOCE