

Developing multi-modality translational studies for cervical cancer screening and treatment: Pragmatic issues pertaining to logistics, infrastructure and solutions



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INTRODUCTION

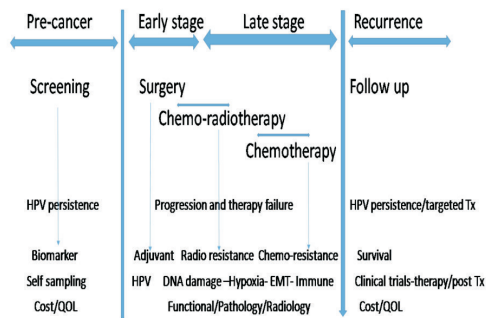
Cervical cancer claims the life of 67,500 women every year in India.

- Persistence of HPV infection is responsible for CIN progression to invasive cervical cancer.
- In early cervical cancer patients despite surgery about 25% recur and in advanced cervical cancer about 50-60% women respond to radiotherapy while the rest progress or recur with disease.
- The risk to progression and failure to treatment is dependent on both viral/ tumour and host factors
- At TMC Kolkata, we have adopted an integrated approach to developing predictive and prognostic biomarkers by optimising tissue collection to cater multi-purpose translational research in collaboration with other research institutions.

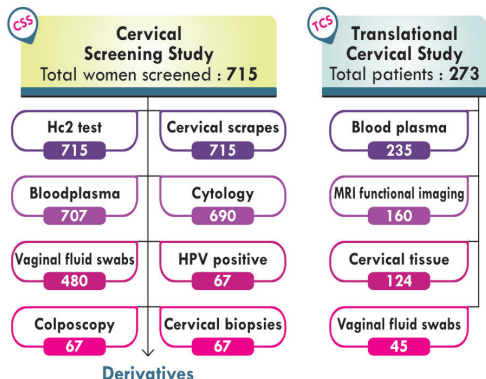
AIMS AND OBJECTIVES

Establishing a clinical and translational research model to provide an infrastructure that will facilitate targeted screening and targeted therapeutics in cervical pre-cancer and cancer.

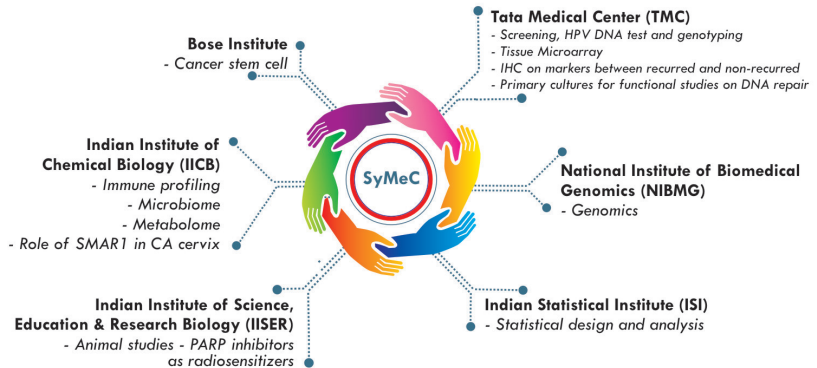
Natural history: Clinical data and translational study time points



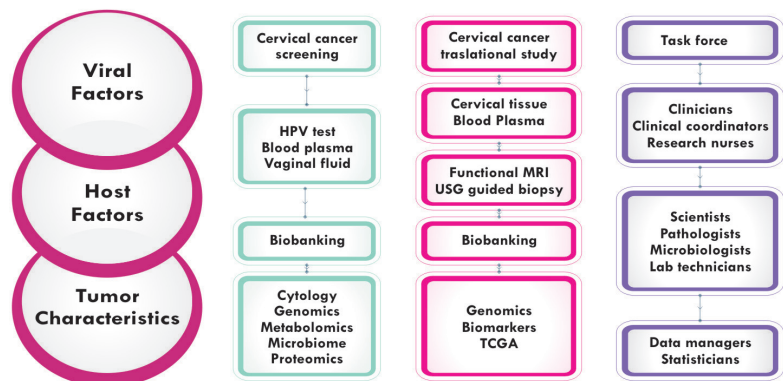
IMPACT AND OUTCOMES



SYSTEMS MEDICINE CLUSTER (SyMeC)



METHODOLOGY



Outpatient Dept

- Counselling and consenting of patients
- Co-ordinating the collections of HPV tests, cervical tissue and blood samples at the first visit
- Collection of epidemiological data and awareness questionnaires
- SOPs for collections and transport of specimen

Biobanking

- Collection of specimen in RNA later and storage at -80°
- Aliquoting tissue for research use by other institutions and storage for future usage

Functional Imaging and Biopsy

- MRI imaging and directed biopsies from hypoxic and normoxic areas

Quality assurance procedures

- Academic sessions and inter institutional periodic meetings
- Troubleshooting and SOP meetings

OUTCOMES

PRIMARY OUTCOME

- Biomarkers for HPV persistence
- Biomarkers for Therapy resistance
- TCGA for advanced cervical cancer

Additionally

- Capacity building with training and development of healthcare systems
- Develop cancer awareness model and modules
- Promote further research pathways for improvement in cancer care

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