



# ESTRO



## ARO-ESTRO

8<sup>th</sup> AROI-ESTRO Teaching Course on  
Gynaecological Cancer

**MRI-CT Image Guided Adaptive Brachytherapy and advances in cervical cancer  
with additional focus on molecular-guided EBRT/BT in endometrial cancers**

**06<sup>th</sup> to 09<sup>th</sup> February 2025  
Lucknow, India**

**Organized by  
Department of Radiation Oncology,  
King George's Medical University, Lucknow**

**Venue  
Kalam Centre  
King George's Medical University, Lucknow**





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## ARO-ESTRO

**Early Bird Registration**  
(Till 31<sup>st</sup> October 2024)

Category	Indian Delegate ARO Member	Indian Delegate Non ARO Member	Foreign Delegate
Physician	INR 12,000	INR 14,000	USD 250
Physicist	INR 10,000	INR 12,000	USD 250
Team (Physician & Physicist)	INR 18,000	INR 20,000	USD 400
<b>Inclusive GST</b>			

**Registration Fee after 31<sup>st</sup> October 2024**

Category	Indian Delegate ARO Member	Indian Delegate Non ARO Member	Foreign Delegate
Physician	INR 14,000	INR 16,000	USD 270
Physicist	INR 12,000	INR 14,000	USD 270
Team (Physician & Physicist)	INR 22,000	INR 24,000	USD 420





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Course Director  
ESTRO



Dr Remi Nout  
Course Director  
ESTRO



Dr Supriya Chopra  
Course Director  
ARO I

## Course Description

The course is aimed at radiation oncologists and medical physicists from institutions that plan to advance their clinical practice with MRI/CT-based brachytherapy and IG-IMRT for cervical cancer. The course will have a beginner and advanced track and participants from previous course versions are also welcome to enhance clinical and medical physics practice and knowledge through advanced track.

The course will include pre-conference homework for clinicians as well as medical physicists, dedicated lectures, videos of intracavitary interstitial brachytherapy, hands-on contouring and treatment planning workshops using MRI/CT/Ultrasound images. Structured feedback on homework will be provided to all participants including interactive Q and A sessions.

Concepts of adaptive MRI/CT brachytherapy contouring and intracavitary-interstitial brachytherapy treatment planning, risk-based IG-IMRT target selection, principles of combining advanced image-guided brachytherapy with nodal boosts, and automated IG-IMRT model building will also be discussed.

The 8th version of the course is further adapted from previous courses to have an additional dedicated discussion session on recent advances in chemotherapy, immunotherapy and biomarkers for locally advanced cervical cancer. An update on newer international studies on personalised response adapted dose prescription and advanced image-guided radiotherapy with immunotherapy combination, registration and reirradiation studies will be discussed.

Expanded in the 8th version will also be lectures on updates on the molecular classification of endometrial cancer and its practical application using case-based discussions.

Participation is open to Indian and International Participants.

## Learning outcomes

By the end of this course participants should be able to:

- Understand the rationale of concepts of image-guided adaptive brachytherapy (IGABT) techniques in clinical practice
- Understand and apply ICRU 89 concepts: GTV-D, CTV-LR, CTV-HR, PTV at diagnosis and GTV-res, CTV-HR, CTV-IR at IGABT
- Perform contouring and treatment planning for Image Guided IMRT and IGABT.
- Implement 3D image-guided brachytherapy in cervical cancer in own department using MRI/CT/Ultrasound
- Implement advanced IG-IMRT techniques in cervical cancer in own department.
- Understand adaptive workflows in Image-guided IMRT and concepts of automated treatment planning.
- Understand principles of management of recurrent cancers and reirradiation.
- Discuss advances in neoadjuvant chemotherapy and immunotherapy.
- Understand the application of molecular classification of endometrial cancer and treatment selection for EBRT and/or Brachytherapy for endometrial cancer.

## Course Content

- Normal and pathologic anatomy of the female pelvis
- Image-based anatomy including US, CT, MRI and conventional radiography at diagnosis and at BT
- GTV/ CTV-HR, CTV-LR//PTV for IG-IMRT and treatment planning concepts
- ITV and adaptive EBRT approaches.
- GTV-res, CTV-HR, CTV-IR, Dose prescription, Concepts of D90, D98 for Targets and 2 cc for OARs.
- Radiobiological effects and combination of external irradiation and brachytherapy, use of EQD2 sheets.
- Dose, fractionation and overall treatment time
- Therapeutic outcomes: radio-chemotherapy, image based EBRT and brachytherapy
- Commissioning and Quality Assurance of various processes involved 3D brachytherapy treatment planning.
- Videos and practical aspects of performing IC-IS implants
- Feedback and review of hurdles in implementation.
- Workshops with hands-on contouring and treatment planning on MRI and CT.
- Advanced EBRT and BT optimisation techniques including nodal dose escalation.
- Introduction to new studies of image-guided adaptive brachytherapy in low-risk, high risk and recurrent cervical cancer.
- Introduction to brachytherapy registration studies.
- Advances in neoadjuvant chemotherapy and immunotherapy in cervical cancer
- Molecular classification of endometrial cancer and risk based treatment selection.

## Teaching Methods

Precourse Reading Materials

- Precourse Homework
- Lectures/tutorials: 14 hours
- Practical workshop: 6 hours
- Applicators commissioning and reconstruction: 6 hours – Physicists
- Video presentations: 2 hours – Clinicians
- Homework Feedback/ Interactive Discussions/ Case Based Discussions: 2 hours

## Methods of Assessment

- Contouring (FALCON tool) and dose planning exercises (pre- and post-course homework)
- Interactive feedback through audience voting on specific questions during lectures
- MCQ and Case-Based Discussion (interactive session at the end of the course)
- Teaching course evaluation form.
- Exclusive feedback sessions for “Experienced track” participants

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