



*ESTRO Teaching Course on
Image-guided radiotherapy & chemotherapy in gynaecological cancer
- With a special focus on adaptive brachytherapy
Prague, Czech Republic - 22-26 October 2016*

Course Directors:

Richard Pötter, Radiation Oncologist, medical University Hospital, Vienna (AUT)

Kari Tanderup, Physicist, University Hospital, Århus (DEN)

Teaching Staff:

Johannes Dimopoulos, Radiation Oncologist, Metropolitan Hospital, Athens (GRE)

Christine Haie-Meder, Radiation Oncologist, Institut Gustave Roussy, Villejuif (FRA)

Ina Jürgenliemk-Schulz, Radiation Oncologist, Medical Center Utrecht (NL)

Taran Paulsen-Hellebust, Physicist, DNR Norwegian Radium Hospital, Oslo (NOR)

Peter Petrow, Radiologist, Institut Curie, Paris (FRA)

Guest Lecturers:

Nicole Nesvacil, Physicist, Medical University Hospital, Vienna (AUT)

Remi Nout, Radiation Oncologist, Leiden University Medical Center, Leiden (NL)

Local Organiser:

Hana Stankusova, Radiation Oncologist, University Hospital Motol (CZ)

ESTRO coordinator: Melissa Vanderijst, project manager (BE)

Day 1- Sunday 22 October	<i>Anatomy, pathology and imaging of the female pelvis and of gynaecologic malignancies CTV, PTV, OAR assessment and treatment planning EBRT Contouring workshops for CTV and OAR in EBRT</i>	<i>Speaker</i>
	Chair: C. Haie-Meder	
08.30 – 08.45 (15min)	Welcome address	R. Pötter K. Tanderup
08.45 - 09.15 (30min)	Anatomical considerations, role of clinical gynaecological examination, and staging	TBC
09.15- 10.00 (45min)	3D Image based normal anatomy: uterus, parametria, organs at risk and nodes US, CT, MRI	P. Petrow
10.00 -10.30	<i>Coffee Break</i>	
	Chair: TBC	
10.30 - 11.20 (50min)	Radiologic pathology of gynaecologic tumours (incl. nodes) : At time of diagnosis At time of brachytherapy	P. Petrow
11.20 – 11.35 (15min)	Imaging protocols MRI and CT: patient preparation for EBRT and BT planning	J. Dimopoulos
11.35 – 12.00 (25min)	Histologic and molecular pathology of gynaecologic malignancies	TBC
12.00 – 12.35 (35min)	CTV contouring in EBRT	I. Jürgenliemk-Schulz
12.35- 13.50	<i>Lunch</i>	
	Chair: TBC	
13.50 - 14.35 (45min)	Image guidance and PTV	K. Tanderup
14.35 – 15.05 (30min)	Treatment techniques EBRT – physics aspects	T. Paulsen- Hellebust
15.05 – 15.35 (30min)	Clinical evidence for EBRT techniques and medical dose constraints including DVH parameters	TBC
15.35 – 16.00	<i>Coffee break</i>	
16.00 - 17.15 (75min)	EBRT workshops for MDs: Clinical Target Volume (Nodal) and organs at risk according to EMBRACE II [15' Introduction, 30' Contouring, 30' discussion]	I. Jürgenliemk-Schulz R. Nout
16:00 – 17:15 (75min)	Plenary session for Physicists (frontal presentations) CTV and organs at risk contouring (one physician in the room) according to EMBRACE II	R. Pötter T. Paulsen- Hellebust K. Tanderup N. Nesvacil

Day 2 - Monday 23 October	Topic – Case discussion, clinical results, treatment strategies for EBRT ±chemotherapy in gynaecological malignancies BT: cervix cancer techniques, GTV _{Diag} , GTV _{Res} , CTV _{Diag} , CTV _{Adapt} Tumor Imaging and clinical diagrams	Speaker
	Chair: TBC	
08.30 - 09.30 (60min)	Case Presentation plenary and case discussion in groups: *cervix cancer, squamous cell carcinoma, FIGO IB1, pelvic node *uterine endometroid adenocarcinoma (IB, Grade 2, 65 years) - 6 different discussion groups each with a group proposal -	C. Haie-Meder
	Parallel session: Physics and RTT discussion session in plenary: Planning Session	T. Paulsen-Hellebust K. Tanderup N. Nesvacil
09.30 - 10.10 (40min)	Cervix Cancer: Results of clinical trials including chemotherapy	J. Dimopoulos
10.10 - 10.40	Coffee break	
	Chair: R. Pötter	
10.40 - 11.10 (30min)	Endometrium Cancer: Techniques and clinical evidence for post-op. EBRT. Results of clinical trials in low/intermediate-risk patients	R. Nout
11.10 - 12.00 (50min)	Physicians session: Plenary case discussion (cervix cancer IB1, uterine ca. IB G2) based on group proposals (morning session) and trial results	C. Haie-Meder
	Physicists and RTTs session: Discussion of EBRT image guidance in small groups	T. Paulsen-Hellebust K. Tanderup N. Nesvacil
12.00 - 13.15	Lunch (Video viewing plenary, IGABT (I), 20 minutes)	
	Chair: C. Haie-Meder	
13.15 - 13.45 (30min)	Role of chemo/chemo-radiation in high-risk endometrium cancer	R. Nout
13.45-14:40 (55min)	ICRU-GEC-ESTRO recommendation: GTV, CTVs at diagnosis and at time of brachytherapy for cervix cancer	C. Haie-Meder
14.40 – 15:10 (30min)	Cervix cancer BT techniques: Fletcher/Manchester, Tandem/Ring, Moulage technique and limitations using standard loading patterns	TBC
15.10 – 15.40 (30min)	Interstitial techniques for cervix cancer	J. Dimopoulos
15.40 - 16.10	Coffee break	
	Chair: R. Pötter	
16.10 – 16.30 (20min)	Clinical diagrams: Cervix cancer and vaginal disease	TBC
16:30 – 17:00 (30min)	Results and analysis of homework delineation examples	TBC

Day 3 - Tuesday 24 October	<i>IGABT: OAR delineation, applicator reconstruction, Dose volume reporting, BT techniques (vagina, vulva, endometrium) Workshops: Contouring (MDs), Applicator reconstruction (Physicists)</i>	<i>Speaker</i>
	Chair: D. Berger	
08.30 – 09.15 (45min)	Delineation of organs at risk (EBRT and IGABT)	TBC
09.15 – 10.00 (45min)	Applicator reconstruction, geometry and image fusion	T. Paulsen-Hellebust
10.00 – 10.30	<i>Coffee break</i>	
	Chair: C. Haie-Meder	
10.30 – 11.30 (60min)	ICRU-GEC-ESTRO recommendations on dose volume reporting	R. Pötter
11.30 – 12.10 (40min)	Endometrium cancer: Target volumes and BT techniques	I. Jürgenliemk-Schulz
12.10 – 13.10	<i>Lunch (Video viewing plenary, IGABT (II), 20 minutes)</i>	
	Chair: R. Pötter	
13.10 – 14.10 (60min)	General and Image guided adaptive treatment strategies and BT techniques for vaginal and vulvar disease:	C. Haie-Meder
14.10 – 16.30 (120min) included coffee break	Workshops for MDs: cervix large-good response MRI/CT Special introduction into CT based contouring (U Mahantshetty)	TBC
	Workshops for Physicists: Reconstruction exercises in groups (Varian, Elekta, Bebig)	K. Tanderup T. Paulsen-Hellebust N. Nesvacil

Day 4 - Wednesday 25 October	<i>IGABT Treatment planning, physics, biology, clinical strategies Uncertainties, imaging and several BT fractions Nodal boost (EBRT), parametrial boost (IGABT, EBRT) Workshops: Contouring (MDs), Treatment Planning (Physicists)</i>	<i>Speaker</i>
	Chair: K. Tanderup	
08.30 – 08.50 (20min)	Basic physics and dose planning principles	T. Paulsen-Hellebust
08.50 – 09.15 (25min)	Radiobiological models to combine dose from external beam and brachytherapy (HDR, PDR)	TBC
09.15 – 10.00 (45min)	Medical aspects of treatment planning and dose constraints	R. Pötter
10.00 – 10.30	Coffee break	
	Chair: TBC	
10.30 – 11.00 (30min)	Physics aspects of treatment planning in endometrium cancer	T. Paulsen-Hellebust
11.00 – 11.45 (45min)	Physics aspects of treatment planning intracavitary +/- interstitial techniques in cervix cancer	K. Tanderup
11.45 – 12.15 (30min)	Physics aspects of treatment planning interstitial techniques in vagina and vulva cancer	TBC
12.15 – 13.30	Lunch (Video viewing plenary, IGABT (III), 20 minutes)	
	Chair: TBC	
13.30 – 14.10 (40min)	Inter- and intra-fraction uncertainties and imaging strategies (MRI/CT) in brachytherapy	K. Tanderup
14.10 – 14.40 (30min)	Nodal boost: techniques, contribution of brachytherapy	I. Jürgenliemk-Schulz
14.40 – 15.10 (30min)	Parametrial boost and midline block: combination of EBRT and IGABT	K. Tanderup
15.10 – 15.40	Coffee break	
15.40 – 17.00 (80min)	Workshops for MDs: cervix large-bad response CT/MRI	TBC
	Workshops for Physicists: Treatment planning in groups (Varian, Elekta, Bebig)	K. Tanderup T. Paulsen-Hellebust N. Nesvacil

Day 5 - Thursday 26 October	<i>IGABT: Practical exercises treatment planning Clinical outcome, Morbidity and QoL, Practical implementation of IGABT Interactive feedback session</i>	<i>Speaker</i>
	Chair: C. Haie-Meder	
08.30 - 09.00 (30min)	Practical exercise for comprehensive dose reporting based on Excel-sheet including the LQ model	T. Paulsen-Hellebust
09.00 - 10.30 (90min)	Cervix cancer: treatment planning workshop	All teachers
10.30 – 11.00	<i>Coffee break</i>	
	Chair: R. Pötter	
11.00 – 11.45 (45min)	Morbidity and QoL outcome after IGABT: Rectum, sigmoid, bowel, bladder and vagina	J. Dimopoulos, C. Haie-Meder
11.45 – 13.00	<i>Lunch (Video viewing plenary, IGABT, local anaesthesia, 20 min)</i>	
	Chair: TBC	
13.00 – 14.00 (60min)	Disease Control after IGABT: Local control, lymph-node control, systemic control	R. Pötter
14.00 – 14.45 (45min)	Practical implementation - Tips and tricks	R. Pötter
14.45 – 15.00 (15min)	EMBRACE and GYN network	K. Tanderup R. Pötter
15.00 – 16:00 (60min)	Interactive Feedback session: “What have you learnt from this course?”	K. Tanderup J. Dimopoulos
16:00	Final Remarks and Closure of the Course	R. Pötter K. Tanderup