COMPREHENSIVE AND PRACTICAL BRACHYTHERAPY

ESTRO

17-21 March 2024 Athens, Greece

Course Directos

Bradley Pieters (BP)

Faculty

Cyrus Chargari (CC) José Luis Guinot Rodriguez (JG) Peter Hoskin (PH) Andrea Slocker Escarpa (ASE) Åsa Carlsson Tedgren (ÅCT) Mirjam Laman (ML) **Contouring Administrator**

Andrea Slocker Escarpa (ASE)

Guest teacher

Alexandra Stewart

SCIENTIFIC PROGRAMME

DAY 1 – SUNDAY 17 MARCH

Time	Lecture	Speaker	Chair
13.00 – 13.15	Welcome & Introduction	ВР	
13.15 - 14.15	Enthusiastic about BT/Quiz - winner		
14.15 – 14.55	Radioactivity & Isotope characteristics	ÅCT	
14.55 – 15.35	Bronchus & Oesophagus GEC-ESTRO recommendations, Indication, tools and requirements, performing application, hazards, results	ASE	
15.35 – 16.05	Coffee break		BP
16.05 – 16.45	Time dose patterns – Characteristics of LDR-PDR-HDR, radiobiological aspects, a/b-ratio and half time of repair, EQD2 concept	PH	J.
16.45 – 17.15	Rectum GEC-ESTRO recommendations, Indication, tools and requirements, performing application, hazards, results	Alexandra Stuart	
17.15 – 17.45	Anal canal GEC-ESTRO recommendations, Indication, tools and requirements, performing application, hazards, results	BP	
17.45 – 18.00	Bladder Video	ВР	

DAY 2 - MONDAY 18 MARCH

Time	Lecture	Speaker	Chair
08.30 – 08.50	Demonstration of prostate contouring homework	ASE/BP	
08.50 - 09.20	Implantation rules Implantation and dosimetric rules (Paris system), ICRU 58. From 2D to 3D dosimetry	СС	
09.20 – 10.00	Prostate permanent implantations GEC-ESTRO recommendations, indication, tools and requirements, performing application, hazards, results	BP	
10.00 – 10.30	Prostate temporary implantations – GEC-ESTRO recommendations, indication, tools and requirements, performing application, hazards, results	PH	ÅCT
10.30 - 11.00	Coffee break		
11.00 – 11.30	Prostate treatment planning Automated treatment plan / Building up a plan, optimisation, peripheral positioning of sources, avoiding high urethra and rectum dose, source seperation	ML	
11.30 – 12.10	Skin GEC-ESTRO recommendations, Indication, tools and requirements, performing application, hazards, results	JG	
12.10 – 12.15	Nasal mould video	JG	
12.15 – 13.15	Lunch break		1
13.15 – 13.25	The Muddiest Point of the morning	Faculty	
13.25 – 14.05	Dose calculation and calibration Basics of dose calculation, dose gradients, TG 43 and limitations	ÅCT	
14.05 – 14.25	Keloids	ASE	
14.25 – 14.30	Keloids video	ASE/JG	
14.30 – 15.40	Practical session Bronchus, oesophagus, prostate & skin applicators	Faculty	ASE
	Physics session Practical issues on dose calculation	ÅCT	
15.40 – 16.10	Coffee break		
16.10 – 17.00	Practical session Prostate TP	Faculty	
17.00 – 18.00	Recontouring prostate and support from teachers	Faculty	



DAY 3 - TUESDAY 19 MARCH

Time	Lecture	Speaker	Chair
08.30 - 09.00	Demonstration of prostate recontouring	ASE/BP	
09.00 – 09.30	Breast brachytherapy GEC-ESTRO recommendations, Indication, tools and requirements, performing application, hazards, results	JG	
09.30 - 10.15	Endometrial (primary and postoperative) GEC-ESTRO recommendations, Indication, tools and requirements, performing application, hazards, results	PH	
10.15 – 10.45	Coffee break		
10.45 – 11.15	Dose optimisation Manual / Geometric / Volume / Graphical / Inverse (penalties, weight function, dwell time gradient)	ÅCT	СС
11.15 – 11.45	Breast APBI GEC-ESTRO recommendations, Indication, tools and requirements, performing application, hazards, results	JG	
11.45 – 11.55	Breast Video	JG	
11.55 – 12.15	Uveal melanoma GEC-ESTRO recommendations, Indication, tools and requirements, performing application, hazards, results	ASE	
12.15 – 13.15	Lunch break		
13.15 – 13.25	The Muddiest Point of the morning		
13.25 – 13.55	Radiation safety \ Radiation protection HVL, distance, inverse square law, controlling systems of the machines, Geiger teller, contamination, safe radioactive sources, requirements treatment rooms, quality assurance, applicator commissioning	ÅCT	
13.55 – 14.25	Postradiation recurrences Prostate Breast Possibilities of reirradiation, results, complications	PH & JG	
14.25 – 14.45	Management of toxicities Conservative medical treatment, coagulation, hyperbaric oxygen	ASE	
14.45 – 15.15	Case discussion - Prostate - Breast - Anal canal - Treatment planning optimisation	Faculty PH/ASE JG/ASE BP/CC ML/ACT	
15.15 – 15.45	Coffee break		
15.45 – 16.15	Case discussion - Prostate - Breast - Anal canal - Treatment planning optimisation	Faculty PH/ASE JG/ASE BP/CC ML/ACT	
16.15 – 16.45	Case discussion - Prostate - Breast - Anal canal	Faculty PH/ASE JG/ASE BP/CC	



DAY 4 – WEDNESDAY 20 MARCH

Time	Lecture	Speaker	Chair
08.30 - 08.50	Demonstration of cervix contouring homework	ASE/CC	JG
08.50 – 09.30	GEC-ESTRO recommendations and ICRU reporting Concept of CTV _{IR} and CTV _{HR} , ICRU 89 report	СС	
09.30 – 10.00	Uncertainties All kind of uncertainties, applicator reconstruction errors, contouring uncertainties, source positioning errors, OAR movements, systematic errors, random errors, interfraction uncertainties, interapplication uncertainties, magnitude of uncertainties	ÅCT	
10.00 - 10.30	Cervix/Techniques GEC-ESTRO recommendations, Indication, tools and requirements, performing application	СС	
10.30 - 11.00	Coffee/Tea break		
11.00 – 11.30	Cervix/Results Hazards, results, complications	PH	
11.30 - 12.10	Cervix treatment planning – Applicator localisation on CT and MR, Applicator library, Optimisation	ML	1
12.10 - 13.10	Lunch break		
13.10 – 13.20	The Muddiest Point of the morning		
13.20 - 13.50	Vagina Vagina cancer, recurrence endometrial cancer, indication, tools and requirements, performing application, hazards, results	СС	
13.50 – 14.20	DVH How to use DVH, differential DVH, cumulative DVH, D98, D90, V100, D2cm3 and the concept of EQD2	JG	
14.20 – 14.40	Vulva Indication, tools and requirements, performing application, hazards, results	СС	PH
14.40 - 15.50	Practical session - Breast and Gyn applicators	Faculty	
15.50 – 16.20	Coffee/Tea break		
16.20 - 17.10	Practical session – Cervix TP	Faculty	
17.10 - 18.00	Recontouring cervix and support from teachers	Faculty	

DAY 5 - THURSDAY 21 MARCH

Time	Lecture	Speaker	Chair
08.30 - 09.00	Demonstration of cervix recontouring example – Demonstration of participants variances after recontouring	ASE/CC	
09.00 - 09.30	H & N cancer GEC-ESTRO recommendations, indications, tools and requirements, performing application	JG	
09.30 - 09.35	Lip Video	JG	
09.35 - 09.40	Nasopharynx Video	JG	
09.40 – 10.10	Postradiation recurrences Gynaecology Head & Neck Possibilities of reirradiation, results, complications	CC & JG	PH
10.10 - 10.40	Coffee/Tea break		
10.40 - 11.00	Paediatrics/Orbita RMS Orbit and H&N (AMORE)	BP	
11.00 – 11.20	Paediatrics/Limb, prostate, Gyn Limb sarcomas, Sarcoma botryroides, prostate sarcoma	СС	
11.20 - 11.35	Video 3D printing	ВР	
11.35 - 11.55	Final remarks & Conclusion		