#### **COMPREHENSIVE AND PRACTICAL BRACHYTHERAPY**

**ESTRO** 

11-15 June 2023 Bucharest, Romania

**Course Directos**Bradley Pieters (BP)

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## **SCIENTIFIC PROGRAMME**

#### **DAY 1 - SUNDAY 11 JUNE**

Time	Lecture	Speaker	Chair
13.00 - 13.15	Welcome & Introduction	ВР	
13.15 - 13.35	Enthusiastic about BT/Quiz - winner		
13.35 – 14.15	Radioactivity & Isotope characteristics	ÅCT	
14.15 - 14.55	Bronchus & Oesophagus GEC-ESTRO recommendations, Indication, tools and requirements, performing application, hazards, results	ASE	
14.55 – 15.25	Coffee break		ВР
15.25 - 16.05	<b>Time dose patterns</b> – Characteristics of LDR-PDR-HDR, radiobiological aspects, a/b-ratio and half time of repair, EQD2 concept	PH	
16.05 - 16.35	Anal canal GEC-ESTRO recommendations, Indication, tools and requirements, performing application, hazards, results	ВР	
16.35 – 17.05	<b>Rectum</b> GEC-ESTRO recommendations, Indication, tools and requirements, performing application, hazards, results	Guest lecture : A. Stewart	
17.05 - 17.20	Bladder Video	PH	



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# **DAY 2 - MONDAY 12 JUNE**

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	<b>Prostate temporary implantations</b> – GEC-ESTRO recommendations, indication, tools and requirements, performing application, hazards, results	РН	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	ВР	
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		
13.15 - 13.55	<b>Dose calculation and calibration</b> Basics of dose calculation, dose gradients, TG 43 and limitations	ÅCT	
13.55 – 14.15	Keloids	ASE	
14.15 - 14.20	Keloids video	ASE/JG	
14.20 - 14.30	Company presentation	Industry	
14 20 45 20	Practical session Bronchus, oesophagus, prostate & skin applicators	Faculty	ASE
14.30 - 15.30	Physics session Practical issues on dose calculation	ÅCT	
15.30 – 16.00	Coffee break		
16.00 – 17.00	Practical session Prostate TP	Faculty	
17.00 - 18.00	Recontouring prostate and support from teachers	Faculty	

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# **DAY 3 - TUESDAY 13 JUNE**

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 – 12.05	Uveal melanoma GEC-ESTRO recommendations, Indication, tools and requirements, performing application, hazards, results	ASE	
12.05 - 12.35	Radiation safety \ Radiation protection  HVL, distance, inverse square law, controlling systems of the machines, Geiger teller, contamination, safe radioactive sources, requirements treatment rooms	ÅCT	
12.35 - 13.35	Lunch break	•	
13.35 - 14.05	Postradiation recurrences Prostate Breast Possibilities of reirradiation, results, complications	PH & JG	
14.05 - 14.25	Management of toxicities  Conservative medical treatment, coagulation, hyperbaric oxygen	ASE	
14.25 – 15.00	Case discussion - Prostate - Breast - Anal canal	Faculty	BP
15.00 - 15.30	Coffee break		
15.30 - 16.40	Case discussion - Prostate - Breast - Anal canal	Faculty	-



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## **DAY 4 - WEDNESDAY 14 JUNE**

Time	Lecture	Speaker	Chair
08.30 - 08.50	Demonstration of cervix contouring homework	ASE/CC	
08.50 - 09.30	GEC-ESTRO recommendations and ICRU reporting Concept of CTV <sub>IR</sub> and CTV <sub>HR</sub> , 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	GEC-ESTRO recommendations, Indication, tools and requirements, performing application	СС	JG
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	ВР	
12.10 - 12.40	Vagina Vagina cancer, recurrence endometrial cancer, indication, tools and requirements, performing application, hazards, results	СС	
12.40 - 13.40	Lunch break		
13.40 - 14.10	DVH How to use DVH, differential DVH, cumulative DVH, D98, D90, V100, D2cm3	JG	
14.10 - 14.30	Vulva Indication, tools and requirements, performing application, hazards, results	СС	
14.30 - 14.40	Company presentation	Industry	PH
14.40 – 15.40	Practical session - Breast and Gyn applicators	Faculty	
15.40 – 16.10	Coffee/Tea break		
16.10 – 17.10	Practical session – Cervix TP	Faculty	
17.10 – 18.10	Recontouring cervix and support from teachers	Faculty	

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## **DAY 5 - THURSDAY 15 JUNE**

Time	Lecture	Speaker	Chair
08.30 - 09.00	<b>Demonstration of cervix recontouring example</b> – 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)	ВР	
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		