

DRAFT PROGRAMME

Course Directos

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Faculty

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DAY 1 – SUNDAY 26 JUNE

Time	Lecture	Speaker
13.00 – 13.15	Welcome & Introduction – Summary of the course	PH
13.15 – 13.45	Radioactivity – Radioactivity: What we need to know	ÅCT
13.45 – 14.25	Time dose patterns – Characteristics of LDR-PDR-HDR, radiobiological aspects, a/b-ratio and half time of repair, EQD2 concept	PH
14.25 – 14.55	<i>Coffee/Tea break</i>	
14.55 – 15.25	Implantation rules – Implantation and dosimetric rules, Paris system, ICRU 58	CC
15.25 – 15.55	Bronchus brachytherapy – Indication, tools and requirements, performing application, hazards, results	ASE
15.55 – 16.25	Bladder – Indication, tools and requirements, performing application, hazards, results	PH
16.25 – 16.55	Oesophagus brachytherapy – Indication, tools and requirements, performing application, hazards, results	ASE

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DAY 2 – MONDAY 27 JUNE

Time	Lecture	Speaker
08.30 – 08.45	Demonstration of prostate contouring homework – Discussions of participants variances	ASE (Chair CC)
08.45 – 09.15	Isotope characteristics – Different isotopes, Specific activity, HVL, energy, half life	ÅCT
09.15 – 09.55	Prostate permanent implantations – GEC-ESTRO recommendations, indication, tools and requirements, performing application, hazards, results	JGR
09.55 – 10.25	Prostate temporary implantations – GEC-ESTRO recommendations, indication, tools and requirements, performing application, hazards, results	PH
10.25 – 10.55	<i>Coffee/Tea break</i>	
10.55 – 11.25	Prostate treatment planning – Automated treatment plan/ Building up a plan, peripheral positioning of sources, avoiding high urethra and rectum dose, source separation, stranded sources vs. loose sources	ÅCT/PH
11.25 – 12.05	Dose calculation 1 – Basics of dose calculation, dose gradients, TG 43 and limitations – Part 1	ÅCT
12.05 – 12.35	Uveal melanoma – Eye plaque therapy, Indication, tools and requirements, hazards, results	ASE
12.35 – 13.35	<i>Lunch break</i>	
13.35 – 13.55	Keloids – Indication, tools and requirements, performing application, hazards, results	ASE (Chair PH)
13.55 – 14.00	Keloid Video	JGR
14.00 – 14.30	Anal canal – Indication, tools and requirements, performing application, hazards, results	JGR
14.30 – 14.40	Company presentation – Demonstration of company activities (7 minutes)	Industry
14.40 – 15.40	Practical session – Demonstration of prostate and breast applicators and material for prostate and breast implantations	Faculty
15.40 – 16.10	<i>Coffee/Tea break</i>	
16.10 – 17.10	Practical session – Prostate HDR Treatment Planning on TPS (Make a treatment plan with planning aims)	Faculty
17.10 – 17.30	Recontouring prostate ex.	

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DAY 3 – TUESDAY 28 JUNE

Time	Lecture	Speaker
08.30 – 09.00	Demonstration of prostate recontouring example – Demonstration of participants variances after recontouring	PH (<i>Chair ASE</i>)
09.00 – 09.30	Dose calculation 2 – Basics of dose calculation, dose gradients, TG 43 and limitations – Part 2	ÅCT
09.30 – 10.00	Breast brachytherapy I – Indication, tools and requirements, performing application (open wound, closed wound, after oncoplastic surgery), hazards, results	JGR
10.00 – 10.30	Dose optimisation – Manual / Geometric / Volume / Graphical / Inverse (penalties, weight function, dwell time gradient)	ÅCT
10.30 – 11.00	<i>Coffee/Tea break</i>	
11.00 – 11.30	APBI – GEC-ESTRO recommendations, indication, techniques (multicatheter, Mamosite, SAVI), results	JGR
11.30 – 12.00	Endometrial – Postoperative: Indication, tools and requirements, performing application, hazards, result	PH
12.00 – 12.40	Skin cancer – Indication, tools and requirements, performing application, hazards, results	JGR
12.40 – 12.45	Nasal mold Video	JGR
12.45 – 13.45	<i>Lunch break</i>	
13.45 – 13.55	Breast Video	JGR (<i>Chair ÅCT</i>)
13.55 – 14.05	Bladder Video	PH
14.05 – 14.25	Endometrial – Definitive treatment: Indication, tools and requirements, performing application, hazards, results	PH
14.25 – 14.35	Company presentation – Demonstration of company activities (7 minutes)	Industry
14.35 – 15.35	Practical session – Demonstration of applicators: Oesophagus, Bronchus, Skin	Faculty
15.35 – 16.05	<i>Coffee/Tea break</i>	
16.05 – 17.05	Practical session – Applicator localisation on TPS (needle localization, activation of dwell times, optimisation)	Faculty

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DAY 4 – WEDNESDAY 29 JUNE

Time	Lecture	Speaker
08.30 – 08.45	Demonstration of cervix contouring homework – Demonstration of participants variances after recontouring	ASE (Chair ÅCT)
08.45 – 09.15	Cervix – Indication, tools and requirements, techniques, performing application	CC
09.15 – 09.45	Cervix – Hazards, results, complications	PH
09.45 – 10.15	GEC-ESTRO recommendations and ICRU reporting – Concept of CTV _{IR} and CTV _{HR} , ICRU 89 report	CC
10.15 – 10.45	<i>Coffee/Tea break</i>	
10.45 – 11.25	Imaging – Use of US, CT, and MR Imaging, slice thickness, MR sequences, MR distortions, dose evaluation	ACT
11.25 – 11.55	DVH – How to use DVH, differential DVH, cumulative DVH, D ₉₈ , D ₉₀ , V ₁₀₀ , D _{2cm3}	JGR
11.55 – 12.25	Cervix treatment planning – Applicator localisation on CT and MR, Applicator library, Optimisation	ATC/CC
12.25 – 13.25	<i>Lunch break</i>	
13.25 – 13.55	Interstitial gynaecological implantations – Vagina cancer, recurrence endometrial cancer or cervical cancer, indication, tools and requirements, performing application, hazards, results	CC (Chair JG)
13.55 – 14.25	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
14.25 – 14.35	Company presentation – Demonstration of company activities (7 minutes)	Industry
14.35 – 15.35	Practical session – Demonstration of gynaecological applicators and material for gynaecological implantations	Faculty
15.35 – 16.05	<i>Coffee/Tea break</i>	
16.05 – 17.05	Practical session – Cervix implantation Treatment Planning on TPS (Make a treatment plan with planning aims)	Faculty
17.05 – 17.20	Recontouring cervix ex.	

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DAY 5 – THURSDAY 30 JUNE

Time	Lecture	Speaker
08.30 – 09.00	Demonstration of cervix recontouring example – Demonstration of participants variances after recontouring	ASE (<i>Chair PH</i>)
09.00 – 09.30	H & N cancer – GEC-ESTRO recommendations, indication, tools and requirements, performing application	JGR
09.30 – 10.00	Radiation safety \ Radiation protection – HVL, distance, inverse square law, controlling systems of the machines, Geiger teller, contamination, safe radioactive sources, requirements treatment rooms	ÅCT
10.00 – 10.30	<i>Coffee/Tea break</i>	
10.30 – 11.00	H & N cancer – Hazards, complications, results	JGR
11.00 – 10.05	Lip Video	
11.05 – 11.10	Nasopharynx Video	
11.10 – 11.30	Paediatrics – RMS Orbit and H&N (AMORE)	CC
11.30 – 11.50	Paediatrics – Limb sarcomas, Sarcoma botryoides, prostate sarcoma	CC
11.50 – 12.30	Final remarks and conclusion	Faculty