Introduction to the Significance of IMRT in Modern Radiation Oncology

27-31 May 2024
Venue: Koç University Hospital
Istanbul, Turkey

Course Description:

Explore the best practices and new trends in Intensity-Modulated Radiation Therapy (IMRT). This on-site course is made for both beginner and experienced radiation therapists, along with medical physicists. Its main goal is to help beginners meet current practice standards and keep advanced users informed about the latest industry advancements.

Our innovative blended learning approach combines on-site lectures with pre-recorded sessions. The curriculum is organized thematically and comprehensively covers key technological aspects, including treatment planning, image guidance and adaptation, and treatment delivery.

Theoretical Program Contents Date: 1-12 May 2024

- IMRT Precautions and Concerns
- IMRT Dose Delivery Techniques
- Inverse Planning; Optimization algorithm and cost function
- Patient Specific QA -IGRT Technologists
- IGRT Correction Strategies; Online and Offline
- Adaptive Treatments; Concepts and Approaches MR-Guided Radiotherapy

On-Site Program Contents Date: 27-30 May 2024

Day 1:

- Introduction to IMRT: Principles, history, and evolution
- Indications and benefits of IMRT in cancer treatment
- Intra-observer Variation and Challanges in Organ Delineation
- Head and Neck IMRT; OAR Delineation
- Prostate IMRT; OAR Delineation
- Brain IMRT; OAR Delineation

Day 2:

- Patient positioning and CT simulation protocol for H&N IMRT
- Patient positioning and CT simulation protocol for Prostate IMRT
- Patient positioning and CT simulation protocol for Left Breast IMRT
- Surface guided applications in IMRT (patient positioning and monitoring)
- Practical Session on multi modality imaging registration (rigid/deformable) for Brain, H&N and Prostate cases in TPS
- Inverse Planning,optimization algorithms and dose constraints

Day 3:

- Treatment planning for Nasopharynx + Lymph node case
- Treatment planning for Prostate + Lymph node case
- Treatment planning for Left Breast + Lymph node case
- Practical hands-on session on Nasopharynx + Lymph node planning
- Practical hands-on session on Prostate + Lymph node planning
- Practical hands-on session on Left Breast + Lymph node planning

Day 4:

- IGRT protocols and registration techniques for different treatment sites
- Practical session on IGRT techniques; (CBCT and KV/KV imaging of an Anthropomorphic Phantom, Image registration, and offsets review)
- Offline CBCT review for two Nasopharynx + Lymph node Cases (Normal case & Challenging case with tumor shrinkage or weight loss)
- Offline CBCT review for two Prostate + Lymph node Cases (CBCT with appropriate organ filling & CBCT with significant changes in organ fillings)
- Practical session on MLC QA procedures for IMRT/VMAT
- Patient Specific QA for Nasopharynx + Lymph node case
- Patient Specific QA for Prostate + Lymph node case

Day 5:

- Patient safety considerations in IMRT
- Managing potential risks and complications of IMRT; Incident Management and reporting
- Case studies and group discussions on patient safety
- Evaluation of treatment outcomes in IMRT
- Assessment of plan quality and plan evaluation metrics
- Multidisciplinary collaboration in IMRT treatment

Faculty:

- **Prof. Dr. Uğur Selek** Head of Turkish Radiation Oncology Associate, Professor of Radiation Oncology Department Koç University Hospital

- **Prof. Dr. Yasemin Bölükbaşı** Supervisor Board members of Turkish Radiation Oncology Associate, Professor of Radiation Oncology Department Koç University Hospital

- **Dr. Şükran Şenyürek** Department of Radiation Oncology Koç University Hospital

- **Assoc. Prof. Duygu Sezen** Department of Radiation Oncology Koç University Hospital

- **M.P. Fatih Kara Köse** Medical Physicist Department of Radiation Oncology Koç University

- **M.P. Mustafa Budak** Medical Physicist Department of Radiation Oncology Koç University

- **M.P. Mustafa Tintaş** Medical Physicist Department of Radiation Oncology Koç University

Certification: Upon completion of the course and the assessment, participants will receive certification from the University Hospital mentioned, endorsed by the Iranian Society of Clinical Oncology (ISCO).

Accessibility and Accommodations

Accommodation Information: While attendees are responsible for arranging their accommodation, we recommend exploring local hotels or accommodations near the event venue. Please plan your stay well in advance to ensure availability.

Transfer Guide: For information regarding transportation or transfer options to and from the event venue, feel free to reach out to us.

Thank you for your understanding, and we look forward to welcoming you to the training program.

Note: For more information about Registration and Cost, please fill out the registration form on the website.

Contact Information

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