Dosimetría en campos pequeños. Verificación de planes de tratamiento y control de calidad en IMRT/VMAT.

El curso contempla los diferentes aspectos relacionados con la dosimetría en campos pequeños, verificación de planes de paciente, comisionado del acelerador y control de calidad del mismo.

Intenta dar una introducción a través de distintos detectores y sistemas de control de calidad recomendados para IMRT estándar y rotacional, además de proporcionar una combinación de conceptos teóricos y prácticos en dosimetría para campos pequeños.

Es muy recomendable para aquellos radiofísicos que quieran actualizar y ampliar sus habilidades y conocimientos en este ámbito, tanto en el campo práctico como teórico.

Tópicos claves cubiertos en este curso:

- Dosimetría en campos pequeños: Recomendaciones internacionales, detectores apropiados y procedimientos de medida.
- Características de haces FFF.
- Comisionado de aceleradores y control de calidad de sistemas de planificación en la práctica clínica.
- Aspectos teóricos y características generales en matrices de detectores.
- Verificación de tratamientos de paciente (IMRT/VMAT) y control de calidad de los aceleradores con matrices de detectores.

PROGRAMA PRELIMINAR

Viernes 5 de Abril. Lugar: AULA 22 de la Facultad de Ciencias de la Salud, (ubicada en el recinto del Complejo Hospitalario de Navarra)

9:00 – 9:15 am	Bienvenida y presentación. Dr. Anastasio Rubio (Jefe del Servicio de Radiofísica y Protección Radiológica) Dr. Enrique Martínez (Jefe del Servicio de Oncología Radioterápica) Dr. Santiago Pellejero (Director del II Curso de Campos Pequeños).
9:15- 10:45 am	Recomendaciones internacionales en dosimetría de campos pequeños, formalismos IAEA/ AAPM. (Dr. Rodolfo Alfonso - 90 min)
10:45- 11:15 am	Café (30 min)
11:15 - 11:45 am	Aplicación de las recomendaciones internacionales de dosimetría en Tomoterapia Helicoidal. (Dra. Ruth Rodriguez Romero. Hospital Puerta de Hierro -30 minutos).
11:45 – 12:15 pm	Aplicación de VMAT en Radiocirugía. Aspectos prácticos en cálculo y verificación. (Dra. Françoise Lliso . Hospital Universitari i Politècnic La Fe - 40 minutos)
12:15 -12:45 pm	Influencia de la dependencia de la tasa de dosis en medidas relativas. (Dr. Rodolfo Alfonso -30 min)
12:45 – 13: 45 pm	Comida (45 min- 60 min)
13:45 – 14:30 pm	2-dimensional Measurements of Small Fields with Ion-Chamber Arrays 1: Challenges. (Dr. Bjorn Poppe - 45 min)
14:30 -15:20 pm	Método de Montecarlo aplicado en radioterapia de fotones en Campo de no referencia. (Dr. Diego M. Gonzalez Castaño - 50 min)

15:20-16:05 pm	2-dimensional Measurements of Small Fields with Ion Chamber Arrays 2: Signal Theory. (Dr. Bjorn Poppe - 45 min)
16:05- 16:35 pm	Café (30 min)
16:35-17:20 pm	2-dimensional Measurements of Small Fields with Ion-Chamber Arrays 3: Clinical Applications of the Octavius 1000SRS (Dr. Bjorn Poppe - 45 min)
17:20-17:45 pm	Características de los haces FFF. (Dr. Rodolfo Alfonso) (Dipl. Ing. Tino Ebneth - 25 min)
17:45-18:15 pm	Experiencia, medidas y resultados en Hospital Universitario HM Sanchinarro en la implementación de la Radiocirugía Funcional. (Dr. Daniel Zucca Aparicio - 30 min)
18:15-18:45 pm	IGRT vs Braquiterapia. (Dr. Sergio Lozares vs Dr. Víctor Gonzalez - 30 min)
21:00	CENA

Sábado 6 de abril. Lugar: Edificio Radioterapia - Pabellón J – (Complejo Hospitalario de Navarra).

Hora de inicio 9:00 am. Hora de cierre 13:00 am. Aperitivo 13:05

PRÁCTICA BASADA EN CUATRO GRUPOS DE UN MÁXIMO DE 12-14 PERSONAS.

GRUPO I: "UTILIZACION DEL REGISTRO DEFORMABLE DE IMAGEN EN IMRT/SBRT" **DURACION 45 MINUTOS. Dr. Rafael Garcia Mollá**

GRUPO II. VERIFICACIÓN DE UN TRATAMIENTO DE SBRT Y RADIOCIRUGÍA **DURACION 45 MINUTOS. Dr. Santiago Pellejero.**

GRUPO III. MEDIDAS EN CAMPOS PEQUEÑOS. **DURACIÓN 45 MINUTOS. Dr. Rodolfo Alfonso.**

GRUPO IV. PLANIFICACION DE UN TRATAMIENTO DE SBRT. **DURACIÓN 45 MINUTOS. Dr. Fernando Caudepón**

LOS CUATRO GRUPOS REALIZARAN LAS CUATRO PRÁCTICAS. LA DURACIÓN TOTAL SERÁ DE TRES HORAS.

CONFERENCIANTES:

Dr. Rodolfo Alfonso Laguardia
Studies at the University of Havana und PhD. at the University of Budapest and further education as Medical Physicist expert at Havana's Institute of Medical Sciences. He is teaching Medical Physicist subjects for under and graduate students, doing research in medical radiation dosimetry, coordinates education programs in Medical Physicist and supervises of implementation of dosimetry protocols in clinics. In addition, he is Coordinator of IAEA Regional TC Projects on Medical Physicist as well as an IAEA Expert in Radiation Oncology Physics. Prof. Alfonso is the actual president of the Latin American Association of Medical Physicist (ALFIM).

Prof. Dr. Björn Poppe
He is in charge of the Medical Radiation Physics Department at Carl von Ossietzky University in Oldenburg and Pius Hospital Oldenburg. He has been actively involved in the development of two-dimensional detectors and their application methods for more than ten years. Providing training to clinical users has always been an important part of professional activities in this area.

Dra. Ruth Rodríguez Romero
She studied Physics at La Laguna University and received MSc as Medical Physicist. Member of the Department of "Radiofísica y Protección Radiológica" at the "Hospital Universitario Puerta de Hierro" since 2006, specialized in Hypofractionated and Stereotactic treatments.

Dr. Daniel Zucca Aparicio
He studied Physics at Valencia University and received MSc as Medical Physicist. Member of the Department of "Radiofísica y Protección Radiológica" at the "Hospital Universitario HM Sanchinarro" since 2007, where attends for treatment planning and quality assurance in SBRT with respiratory gating, and also for Functional Radiosurgery.

Dra. Françoise Lliso
She was born in Orange (France) in 1964. She received the Physics degree at the University of Valencia in 1987 where she started working on Environmental Radiactivity and in 1989 she made her master project on X Ray Quality Control. Since 1990 she works as a Medical Physicist at the Radiotherapy Physics Department at the Hospital La Fe in Valencia. She was co-Chair of the SEFM working group on Quality Control of Medical Accelerators. From 2012 to 2016 she was the editor of the SEFM journal, "Revista de Física Médica". Her research interests include the area of Medical Physicist, mainly clinical dosimetry.

Dipl. Ing. Tino Ebneth
He studied Medical Engineering at University of Applied Sciences in Gießen, Continuing Education as a Medical Physicist Expert (MPE). Clinical experience as a MPE in radiation therapy for several years, 2 years as a leading MPE.
In 2008, he joined the International Sales Team at PTW.
Since 2014, Leader and Manager of the PTW Dosimetry School, responsible for contents and further development of the course programme.

Dr. Rafael Garcia
He studied Physics at Valencia University and received MSc as Medical Physicist. He finished the doctoral works in the area of adaptative radiotherapy. He is the Chair of the SEFM working group on Adaptive Radiotherapy. Recently has been announced like Head of the Department of "Radiofísica y Protección Radiológica" at the Hospital General de Valencia.

Dr. Santiago Pellejero
He studied Physics at Zaragoza University, Medical Physicist at the Hospital Clínico Universitario de Zaragoza "Lozano Blesa" , after he was working at "Fundación Centro Oncológico" de Galicia A Coruña, continuing his education in the follow hospitals : Hospital Cruces (Barakaldo) and "Clínica Universitaria de Navarra", actually he is working in the department of "Radiofísica y Protección radiológica" at "Complejo Hospitalario de Navarra".

Dr. Diego M. González Castaño

He is technical director of Radiation Physics Laboratory (RPL) of University of Santiago de Compostela, a Gamma and High Energy X-Ray Therapy Level Secondary Standard Dosimetry Laboratory. His field of research includes among other topics Monte Carlo simulation of radiotherapy beams, non-reference external radiotherapy dosimetry or development of liquid filled ionisation chambers.

Dr. Sergio Lozares Cordero

He studied Physics at the University of Zaragoza and is a specialist in medical physiscist, worked at the "Complejo Hospitalario de Navarra" for 10 years (until October 2015), unraveling the twists and turns of Radiotherapy and Brachytherapy side by side with Santiago Pellejero. Since then he has been working at the Miguel Servet Hospital in Zaragoza where he works in the areas of External Radiotherapy, Intraoperative Radiotherapy and Electronic Brachytherapy.

Dr. Victor Gonzalez Perez

Graduated in Physics from the University of Valencia and specialist in Medical Physics after doing residency at the Hospital la Fe. He has been working for 10 years at the "Instituto Valenciano De Oncologia". He has recently received his PhD from the Polytechnic University of Valencia and coordinates several brachytherapy projects at the GEC-ESTRO.

Dr. Fernando Caudepón Moreno

He studied Physics at University of Zaragoza and as a Medical Physicist at the Carlos Haya Hospital in Malaga. He has worked in Xanit International Hospital in Benalmádena (Málaga), at the University Hospital Nuestra Señora de la Candelaria in Tenerife, and at the University Hospital of Burgos. He currently is working in the department of Medical Physics and Radiological Protection department at the Complejo Hospitalario de Navarra in Pamplona.

REALIZACION DEL CURSO:

Dosimetría en campos pequeños. Verificación de planes de tratamiento y control de calidad en IMRT/VMAT.

Las charlas del viernes, día 5 de abril, en la Facultad de Ciencias de la Salud, aula 22 (ubicada en el recinto del Complejo Hospitalario de Navarra).

Las prácticas del sábado, día 6 de abril, en el pabellón J del Complejo Hospitalario de Navarra.

EL CURSO INCLUYE LAS COMIDAS, CAFES DURANTE LA REALIZACIÓN DEL CURSO Y LA CENA DEL VIERNES. NO INCLUYE ALOAMIENTO NI TRASPORTE.