Clinical Focus
CF 111 – HCC: doubts we have brought with us to 2023
Sunday, April 16, 2023; 08:30-10:00

111.1 / LIRADS: what are the pros and cons? (12 min + 3 min)
1. To describe LIRADS
2. To understand the evidence supporting LIRADS use in clinical practice
3. To underline the drawbacks of LIRADS and how to overcome them

111.2 / MALD-HCC: is it a completely different disease to handle? (12 min + 3 min)
1. To define MALD and its relationship with HCC occurrence
2. To understand the differences in epidemiology, presentation and aggressiveness of MALD-HCC
3. To highlight if and how treatment allocation and results may change in MALD-HCC

111.3 / Is there space for improving the curative intent of ablation? (12 min + 3 min)
1. To describe the current role and results of ablation in the treatment of HCC
2. To highlight the limitations of ablation (image guidance, volumes of ablation)
3. To suggest how to improve outcomes

111.4 / Has the perspective on the treatment of intermediate stage HCC changed? (12 min + 3 min)
1. To describe possible treatment options in the treatment of intermediate stage HCC according to guidelines
2. To describe how intermediate stage HCC is treated in clinical practice
3. To propose criteria for treatment allocation

111.5 / Combining loco-regional treatments and immunotherapy: has the promise been kept? (12 min + 3 min)
1. To describe the current evidence on the combination of loco-regional treatments and immunotherapy
2. To understand reasons for success and failures
3. To propose study designs for collecting further convincing evidence

111.6 / Systemic therapies for advanced HCC: success or failure? (12 min + 3 min)
1. To describe the treatment algorithm for advanced stage HCC in 2023
2. To describe the current evidence about systemic therapies results for advanced HCC
3. To describe the current ongoing clinical trials

Clinical Focus
CF 112 – Ablation in other organs
Sunday, April 16, 2023; 08:30-10:00

112.1 / Head and neck tumour ablation (12 min + 3 min)
1. To describe the different ablation techniques for head and neck tumour ablation
2. To analyse the level of evidence and literature results
3. To identify tips and tricks for avoiding complications

112.2 / Thyroid: malignant lesions and recurrences (12 min + 3 min)
1. To describe the different ablation techniques for malignant thyroid lesions and recurrences
2. To analyse the level of evidence and literature results
3. To identify tips and tricks for avoiding complications

112.3 / Breast cancer (12 min + 3 min)
1. To describe the different ablation techniques for breast cancer
2. To analyse the level of evidence and literature results
3. To identify tips and tricks for avoiding complications

112.4 / Pancreas: intra-operative and percutaneous approaches (12 min + 3 min)
1. To describe the different approaches for pancreatic cancer
2. To analyse the level of evidence and literature results
3. To identify tips and tricks for avoiding complications

112.5 / Adrenal malignancies (12 min + 3 min)
1. To describe the different ablation techniques for adrenal malignancies
2. To analyse the level of evidence and literature results
3. To identify the position of ablation in the therapeutic armamentarium of adrenal malignancies

112.6 / Prostate cancer (12 min + 3 min)
1. To describe the different imaging modalities for ablation guidance including MRI
2. To analyse the importance of fusion imaging for prostate cancer ablation
3. To analyse the level of evidence and literature results

Clinical Focus
CF 121 – Immuno-oncology for IOs: current knowledge
Sunday, April 16, 2023; 10:30-12:00

121.1 / Understanding the immune system and current therapeutic options: how does it work? (12 min + 3 min)
1. To distinguish between the healthy immune system and impaired tumour immune surveillance
2. To understand standard different immune system influencing therapeutics
3. To understand the mechanism of immune related adverse events

121.2 / Immune tumour responsiveness: the borderline between success and failure (12 min + 3 min)
1. To understand the rationale for high efficacy of IO in entities like melanoma and RCC
2. To distinguish between immuno-hot and cold tumours
3. To understand the rationale for moderate efficacy of IO in colorectal cancer

121.3 / Biomarkers for immunotherapies: where do we stand? (12 min + 3 min)
1. To understand the role and evaluation of biomarkers for anti-PDL1 treatments
2. To know role of biomarkers for tumour microenvironment and immune-modulating cells
3. To inform how biomarkers can indicate treatment success (next to imaging)

121.4 / How best to stimulate the immune system with ablative treatments (12 min + 3 min)
1. To know which immune system changes are induced by ablative therapies
2. To understand the mechanism of immune stimulation with various ablative therapies, techniques and regimens
3. To know the available data on immune system stimulation with ablative treatments

121.5 / Intraarterial therapies for priming the immune system: rationale and clinical results (12 min + 3 min)
1. To know the specific immune change, induced by intra-arterial therapies
2. To understand the mechanism of immune stimulation with various intra-arterial therapies
3. To know the available data on immune system stimulation with intra-arterial therapies

121.6 / Oligoprogression and oligoresistance: a place for IO? (12 min + 3 min)
1. To understand the concept of oligoprogression and oligoresistance
2. To know the advantages and limitations of IO for oligoprogression and IO
3. To know the available data on IO, oligoprogression and oligoresistance

Clinical Focus
CF 122 – MSK: established indications
Sunday, April 16, 2023; 10:30-12:00

122.1 / Stereotactic radiosurgery of bone metastases (12 min + 3 min)
1. To describe radiation modalities, techniques, and dose fractionation for SBRT of bone metastases
2. To analyse the level of evidence and literature results for SBRT of bone metastases
3. To understand the toxicities related to SBRT of bone metastases

122.2 / Vertebral augmentation for cancer patients: which technique for which patient (12 min + 3 min)
1. To describe the different vertebral augmentation techniques for cancer patients
2. To analyse the level of evidence and literature results for each technique
3. To identify tips and tricks for technique selection

122.3 / Palliative care in metastatic spinal and MSK tumours (12 min + 3 min)
1. To describe the different palliation techniques for metastatic spinal and MSK tumours including infiltrations and ablation
2. To analyse the level of evidence and literature results
3. To identify tips and tricks for technique selection

122.4 / Desmoids and desmoids fibromatosis (12 min + 3 min)
1. To describe the different ablation techniques for desmoids
2. To analyse the literature results and emerging evidence from clinical trials
3. To identify the position of ablation in the therapeutic armamentarium of desmoids

122.5 / Avoiding complications in osteoplasty techniques (12 min + 3 min)
1. To describe the risks and possible complications of percutaneous osteoplasty techniques
2. To analyse the categories of pitfalls
3. To identify tips and tricks for avoiding complications in osteoplasty techniques

122.6 / Neuro-anatomy and thermoprotective techniques (12 min + 3 min)
1. To describe the different thermoprotective techniques used in ablation
2. To provide examples of thermoprotective techniques near neural structures
3. To identify tips and tricks for avoiding complications during ablation

Clinical Focus
CF 151 – Intrahepatic cholangiocarcinoma
Sunday, April 16, 2023; 17:00-18:30

151.1 / Targeted oncological treatments (12 min + 3 min)
1. To describe the evolving genetic landscape and targeted oncological treatments
2. To dissect molecular profiling of ICC using next generation sequencing
3. To analyse the emerging evidence from clinical trials

151.2 / Good and bad indications for surgery (12 min + 3 min)
1. To identify pre-operative evaluation and current indications
2. To describe the current and emerging surgical principles
3. To analyse the level of evidence and literature results

151.3 / Post-operative biliary disasters – how to begin reconstruction (12 min + 3 min)
1. To discuss the management of post-operative bile leak and other complications
2. To identify tips and tricks for biliary reconstruction
3. To analyse the application of cone beam CT in the management of post-operative biliary complications

151.4 / Ablation: current evidence (12 min + 3 min)
1. To analyse the level of evidence and literature results
2. To identify the position of ablation in the therapeutic armamentarium
3. To identify tips and tricks for avoiding complications

151.5 / TAE/TACE/Chemosaturation: current evidence (12 min + 3 min)
1. To analyse the level of evidence and literature results for each technique
2. To identify tips and tricks for technique selection
3. To analyse the emerging evidence from clinical trials

151.6 / TARE: current evidence (12 min + 3 min)
1. To analyse the level of evidence and literature results
2. To analyse the emerging evidence from clinical trials
3. To identify the emerging role of dosimetry to optimise treatment planning and post-treatment radiation dosage measurements

Technical Focus
TF 152 – Tips and tricks: case based discussion – various organs
Sunday, April 16, 2023; 17:00-18:30

152.1 / Breast: a beginner's guide (12 min + 3 min)
1. To outline the indications of thermal ablation on breast tumours
2. To familiarise with the technique of imaging guided breast ablation
3. To know about the clinical outcomes and how to plan the follow up

152.2 / Lung: difficult locations (12 min + 3 min)
1. To identify the location at risk and potential complications
2. To learn which techniques (anaesthesia, image guidance, ablation energy, etc) to use for approaching lung tumours in difficult locations
3. To outline the clinical outcomes reported from the literature

152.3 / Liver: best practice (12 min + 3 min)
1. To familiarise with the fusion-imaging technique in liver ablation
2. To understand the advantages of using fusion imaging in percutaneous liver ablation
3. To give current results regarding the fusion imaging in ablation

152.4 / Kidney: pelviureteric junction proximity (12 min + 3 min)
1. To learn about the potential risk and possible complications of treating RCC close to the renal collecting system
2. To familiarise with the most suitable ablation techniques, including tricks and tips for avoiding collecting system damage during ablation
3. To know the literature regarding the outcome of percutaneous ablation in RCC close to the collecting system

152.5 / Adrenal: the best way to do it safely (12 min + 3 min)
1. To learn about the techniques for safely approaching the right and the left adrenal glands (image guidance, anaesthesia, ablation energy, etc)
2. To better understand the potential risks of adrenal gland percutaneous ablation
3. To know how to protect the patient from cardiovascular reactions during adrenal gland ablation

152.6 / Pelvic ablations: when and how? (12 min + 3 min)
1. To familiarise with the indications of percutaneous ablation for pelvic lesions
2. To know how to safely approach pelvic tumours for ablation and when to give up (Ablation vs RT)
3. To discuss the current results

Basic Course
BC 153 – Liver 1
Sunday, April 16, 2023; 17:00-19:00

153.1 / Imaging and biopsy of liver tumours: what an IO should know (20 min + 10 min)

153.2 / Anatomy of liver arteries: tips and tricks for catheterism (20 min + 10 min)

153.3 / Ablation tools for liver tumours: RFA, microwave, IRE, cryo, multipolar and monopolar (20 min + 10 min)

153.4 / Compounds for intra-arterial therapies: chemotherapy, lipiodol, beads and embolics (20 min + 10 min)

Course learning objectives:
1. To build a clinical practice in diagnostic and therapeutic image guided liver intervention
2. To select the best treatment option for a given clinical situation
3. To discuss surgical, radiation, and medical oncology treatments at tumour board and with referred patients
4. To interact with the other physician in charge of cancer treatment to provide best diagnostic and therapeutic option to the patient "

Clinical Focus
CF 211 – Metastatic CRC: hot topics
Monday, April 17, 2023; 08:30-10:00

211.1 / Understanding the biology of mCRC: what defines oligometastatic disease? (12 min + 3 min)
1. To understand the clinical criteria for oligometastatic disease and the rationale for this
2. To gain knowledge about the molecular characteristics of oligometastatic disease and how to determine this
3. To use this knowledge for further choice and stratification of treatment modalities

211.2 / New options of molecular determined treatment (12 min + 3 min)
1. To understand the molecular subtypes of CRC
2. To gain information on "druggable" targets and to share key results of "targeted" treatments and immunotherapy
3. To learn about the (potential) interaction of innovative treatments with local ablative treatments

211.3 / Ablation: is there a maximum lesion size and number? (12 min + 3 min)
1. To understand the upper limits regarding the number and size of CRLM
2. To gain knowledge on the ablation of larger size CRLM
3. To gain knowledge on the rationale for the ablation of multiple and scattered bilobar CRLM

211.4 / Current position of TARE and TACE? (12 min + 3 min)
1. To understand the current indications for transarterial treatments to treat CRLM
2. To gain knowledge regarding the evidence for TACE to treat CRLM
3. To gain knowledge regarding the evidence for Y90 and H66 SIRT to treat CRLM

211.5 / ctDNA: a new instrument for surveillance after ablative treatment? (12 min + 3 min)
1. To gain information on ctDNA and other "liquid compartment" modalities
2. To learn about the prognostic and predictive roles, concept of "minimal residual disease" surveillance and follow-up strategies
3. To gain knowledge about the frequent molecular alterations during treatment (clonal selection) and its meaning for further treatment strategies

211.6 / Bridging CRC mets to liver transplantation (12 min + 3 min)
1. To understand the current evidence to treat CRLM patients with transplantation
2. To gain knowledge regarding the potential future indications for liver transplantation in patients with CRLM
3. To gain knowledge regarding the bridge to transplant ablation for patients with CRLM on the waiting list for liver transplantation

Clinical Focus
CF 212 – Paediatric IO: what is different in children?
Monday, April 17, 2023; 08:30-10:00

212.1 / Optimising paediatric oncology imaging (12 min + 3 min)
1. To appreciate the broad differences between imaging adults and children
2. To be confident in knowing which key imaging modalities to use when imaging common paediatric tumours
3. To gain some tips and tricks for streamlining your paediatric oncology imaging

212.2 / Optimising the IO suite for children (12 min + 3 min)
1. To recognise what makes a small child vulnerable in an IR environment
2. To optimise the operating environment and your procedural techniques to make it safer for children
3. To establish safe working protocols with your anaesthetic, scrub and radiography teams

212.3 / Biopsy in paediatrics: requirements, indications and pathways (12 min + 3 min)
1. To appreciate what is different about biopsy techniques in children
2. To learn which common paediatric tumours require biopsy and which do not
3. To recognise the specific risks when biopsying tumours in small children

212.4 / Vascular access devices: how best to support oncology care for children? (12 min + 3 min)
1. To gain confidence in choosing appropriate access devices for children
2. To understand how to adapt your vascular access techniques for small children
3. To recognise the common complications in children

212.5 / Angiography in children: practical tips for safe angiography and embolisation (12 min + 3 min)
1. To distinguish what is technically different about angiography in small children
2. To become confident in knowing what equipment and devices are most suitable in children
3. To appreciate how to reduce contrast and radiation dose in paediatric procedures

212.6 / Ablation: procedural differences in children (12 min + 3 min)
1. To appreciate where ablation is most likely to have value in paediatric oncology
2. To consider how to modify ablation techniques for paediatric practice
3. To recognise the more common complications in paediatric ablation

ECIO meets
EM 241 – ECIO meets ESSO: Liver
Monday, April 17, 2023; 15:00-16:30

241.0 / Welcome (2 min)

241.1 / Planning for advanced liver surgery (15 min + 3 min)

241.2 / Future liver remnant augmentation: current issues (15 min + 3 min)

241.3 / Advanced techniques for resection (15 min + 3 min)

241.4 / Where surgery and IO can meet (15 min + 3 min)

241.5 / Panel discussion and conclusion (16 min)

Clinical Focus
CF 242 – Renal cancer: challenging indications
Monday, April 17, 2023; 15:00-16:30

242.1 / Resection in the solitary kidney setting (12 min + 3 min)
1. To appreciate the nephrometry considerations in solitary renal resection
2. To gain insight into the surgical risk profile and consent process
3. To understand the surgical approaches that best protect residual renal function, including bench surgery

242.2 / Ablation in the solitary kidney setting (12 min + 3 min)
1. To understand the impact of different ablation modalities on solitary renal function
2. To appreciate how best to spare renal function whilst achieving A0 ablation and what the literature tells us
3. To evaluate the relative merits of ablation and partial nephrectomy in the solitary kidney setting

242.3 / Central renal cancer (12 min + 3 min)
1. To appreciate the anatomical risks of central renal disease
2. To discuss when resection or ablation are best suited
3. To detail interventional techniques that achieve A0 ablation but obviate complications

242.4 / Ablation in significant renal impairment: ever indicated? (12 min + 3 min)
1. To appreciate the measurement of high grade renal impairment
2. To understand the relative risks of renal functional injury versus oncological risk
3. To review any useful current decision-making tools in this borderline setting

242.5 / T1b renal tumour ablation: is it time? (12 min + 3 min)
1. To appreciate the oncological significance of T1b disease
2. To understand the relative merits of surgery and ablation in this setting
3. To learn how best to optimise ablation outcomes in T1b disease

242.6 / Oligometastatic disease: role of IO (12 min + 3 min)
1. To understand the unique biology of oligometastatic disease in renal cancer
2. To appreciate the pattern of Renal OMD and the distinction from polymetastatic disease warranting systemic therapy
3. To evaluate the case for treatment and evaluable data in this setting

Clinical Focus
CF 251 – Why an IO should be on the tumour board: lung tumours
Monday, April 17, 2023; 17:00-18:30

251.1 / Lung tumour ablation: optimised technique (12 min + 3 min)
1. To compare the advantages and drawbacks of different thermal ablation techniques
2. To give the results of thermal ablation on lung tumours
3. To reflect on possible innovations

251.2 / The location debate (12 min + 3 min)
1. To identify the location at risk
2. To list the potential complications
3. To select the most suitable ablation techniques depending on the tumour location

251.3 / Complications after lung thermal ablation, is an outpatient stay reasonable? (12 min + 3 min)
1. To give tips and tricks to reduce the risk of pneumothorax
2. To identify patients suitable for an outpatient stay and those who are not
3. To outline some recommendations to shorten hospital stay

251.4 / Case presentation: primary (3 min)

251.5 / Panel discussion (12 min)

251.6 / Case presentation: metastatic (3 min)

251.7 / Panel discussion (12 min)

251.8 / Case presentation: metastatic/primary (3 min)

251.9 / Panel discussion (12 min)

Clinical Focus
CF 252 – Clinical studies are mandatory for IO
Monday, April 17, 2023; 17:00-18:30

252.1 / Clinical research in oncology: role of CRO (12 min + 3 min)
1. To learn strategies for starting clinical studies in IO
2. To learn about the specific benefits of CROs in clinical IO research
3. To learn the role of a trial monitor and trial data management

252.2 / What types of clinical trials are needed in interventional oncology? (12 min + 3 min)
1. To identify the problems in recruiting patients and imprecisions of RCTs
2. To know the differences between superiority and non-inferiority trials
3. To learn how to cement IO in the world of EBM

252.3 / Impact of imaging in oncology: what end points and which imaging criteria? (12 min + 3 min)
1. To learn the different imaging modalities in IO
2. To learn the impact of imaging in IO
3. To learn the different trial end points

252.4 / Design of clinical trials in interventional oncology: PROMs (12 min + 3 min)
1. To define the different designs of clinical trials
2. To define PROMS with a focus on IO
3. To understand the potential importance of specific PROMS such as QoL for IO

252.5 / Case study: critique of a recently published care-changing clinical trial in IO (12 min + 3 min)
1. To identify current care-changing clinical IO trials
2. To critically review these trials with a focus on outcomes measure
3. To learn about quality control in IO clinical trials

252.6 / Need for society's sponsored registries: are these the wave for the future? (12 min + 3 min)
1. To learn the challenges of IO for clinical studies
2. To learn how to start a practice with clinical registry trials
3. To learn the potential role of registry trial designs to establish evidences in IO

Basic Course
BC 253 – Liver 2
Monday, April 17, 2023; 17:00-19:00

253.1 / Ablation of primary liver tumours: best indications and best technique (20 min + 10 min)

253.2 / TACE of HCC: how to deliver and how to manage the patient? (20 min + 10 min)

253.3 / Ablation of metastatic liver tumours: when and how? (20 min + 10 min)

253.4 / TACE of liver metastases: which patients and how to manage it (20 min + 10 min)

Course learning objectives:
1. To build a clinical practice in diagnostic and therapeutic image guided liver intervention
2. To select the best treatment option for a given clinical situation
3. To discuss surgical, radiation, and medical oncology treatments at tumour board and with referred patients
4. To interact with the other physician in charge of cancer treatment to provide best diagnostic and therapeutic option to the patient "

Clinical Focus
CF 311 – HCC: what I would like to read in the new guidelines
Tuesday, April 18, 2023; 08:30-10:00

311.1 / From radiomics to AI: future usefulness in clinical practice (12 min + 3 min)
1. To outline the potential role of genomics and AI techniques to improve diagnosis of HCC
2. To demonstrate how radiomics and AI impact treatment planning and procedure guidance
3. To give an outline on how radiomics and AI could improve the decision making in IO

311.2 / The effect of aetiology on treatment decisions (12 min + 3 min)
1. To describe differences in HCC characteristics at diagnosis according to chronic liver disease etiology
2. To highlight the differences in tumour biology according to etiology
3. To describe the current evidence on the impact of liver disease etiology and treatment efficacy

311.3 / Assessing liver function in the non-surgical treatment of hepatocellular carcinoma (12 min + 3 min)
1. To evaluate the importance of liver function evaluation in non-surgical treatments
2. To highlight limitations of the current systems to assess liver function
3. To advise how to improve liver function evaluation prior to interventional oncology treatment

311.4 / The difficult treatment choice for solitary 3-5 cm HCC (12 min + 3 min)
1. To discuss the results and limitations of ablation and chemoembolisation as single therapies in the treatment of solitary 3.5 cm HCC
2. To describe the results of combined ablative and intra-arterial treatment in the treatment of solitary 3.5 cm HCC
3. To describe the results of radioembolisation in the treatment of solitary 3.5 cm HCC

311.5 / Developments in intraarterial treatment of multinodular disease (12 min + 3 min)
1. To describe the current role and limitations of chemoembolisation and radioembolisation in the treatment of multinodular HCC
2. To describe the available devices and platforms that may improve treatment results
3. To highlight how intra-arterial navigation could impact on feasibility and results of intra-arterial treatments

311.6 / Downstaging to curative intent: the role of local treatments and immunotherapy (12 min + 3 min)
1. To describe when and why downstaging is useful before curative treatment of HCC
2. To describe the role of locoregional therapies in downstaging HCC before curative treatment
3. To evaluate the current evidence on the role of immunotherapy in downstaging to curative treatment of HCC

Clinical Focus
CF 312 – MSK: advanced indications
Tuesday, April 18, 2023; 08:30-10:00

312.1 / Spine ablation: which technique for which lesion (12 min + 3 min)
1. To describe the different ablation techniques for spine tumours in cancer patients
2. To analyse the level of evidence and literature results for each technique
3. To identify tips and tricks for technique selection

312.2 / Bone ablation for curative intent: ready for prime time? (12 min + 3 min)
1. To describe the different ablation techniques for curative therapy of bone tumours in cancer patients
2. To analyse the level of evidence and literature results
3. To identify the position of ablation in the therapeutic armamentarium of bone metastases

312.3 / Neuromonitoring techniques: case based approach (12 min + 3 min)
1. To describe different neuromonitoring techniques during ablation
2. To provide clinical examples of neuromonitoring techniques during ablation
3. To identify tips and tricks for technique selection

312.4 / Embolisation in MSK: from TAE to TACE (12 min + 3 min)
1. To describe the different embolisation techniques for MSK tumours in cancer patients
2. To analyse the indications, level of evidence and literature results for each technique (excluding pre-operative application)
3. To identify the position of embolisation in the therapeutic armamentarium of MSK tumours

312.5 / Electrochemotherapy for spinal tumours (12 min + 3 min)
1. To describe the electrochemotherapy technique for spinal tumours
2. To analyse the indications, literature and clinical results
3. To identify the position of electrochemotherapy in the therapeutic armamentarium of spinal tumours

312.6 / Multidisciplinary approach (12 min + 3 min)
1. To describe the combined approaches between IO, RT, surgery
2. To analyse the indications, level of evidence and literature results
3. To identify the current practice and future perspectives for multidisciplinary approach

Clinical Focus
CF 321 – Why an IO should be on the tumour board: renal cancer
Tuesday, April 18, 2023; 10:30-12:00

321.1 / Ablation: current indications (12 min + 3 min)
1. To appreciate the current breadth of indications for renal ablation and outcomes for T1a disease
2. To summarise the current status of ablation in T1b disease
3. To review the outcomes of different ablation modalities and suggest the current optimal technique

321.2 / Synchronous metastatic presentation: IO's best approach (12 min + 3 min)
1. To understand the biology and treatment implications of synchronous metastatic disease
2. To distinguish oligo- and polymetastatic disease and when ablation is indicated
3. To understand the current role of the ablation of primary renal cancer in the setting of synchronous metastatic disease

321.3 / Metachronous disease: IO's best approach (12 min + 3 min)
1. To understand the biology of metachronous disease and recognise OMD
2. To outline the current evidence for ablation in OMD
3. To appreciate when systemic therapy is indicated and how it might be potentiated by ablation

321.4 / Case presentation (3 min)

321.5 / Panel discussion (12 min)

321.6 / Case presentation (3 min)

321.7 / Panel discussion (12 min)

321.8 / Case presentation (3 min)

321.9 / Panel discussion (12 min)

Technical Focus
TF 322 – AI: from monitoring tools to robotics
Tuesday, April 18, 2023; 10:30-12:00

322.1 / Radiomics and genomics (12 min + 3 min)
1. To define radiomics, genomics and its relationship
2. To identify the potential implications of radiogenomics in local tumour treatments guidance
3. To assess the future interaction of radiogenomics with interventional oncology

322.2 / Segmentation and AI for treatment planning and procedural assistance (12 min + 3 min)
1. To understand the basic principles of AI for segmentation tasks
2. To demonstrate how AI-based segmentation impacts treatment planning and procedure guidance
3. To discuss possible future implementations for segmentation in treatment planning and procedure guidance

322.3 / AI and follow up of IO treatments (12 min + 3 min)
1. To outline the potential role of AI techniques in improving diagnostic and treatment of tumours relevant to IO
2. To describe the added value and limitations of AI in short and long term image follow up for IO
3. To foresee the future indications for AI techniques in IO image follow up

322.4 / From diagrams to algorithms, AI in decision making (12 min + 3 min)
1. To differentiate between diagrams and algorithms and its clinical relevance
2. To provide practical examples of AI generated algorithms relevant to clinical practice
3. To give an outline of potential algorithms that could improve the decision making in IO

322.5 / Augmented reality and AI in education and training in IO (12 min + 3 min)
1. To define augmented reality and mixed reality and its relations to AI
2. To establish the current possibilities for augmented reality in improving the skills and knowledge of trainees and certified interventional oncologists
3. To provide future examples of the usage of augmented and mixed reality in education programs and skills update evaluation

322.6 / Robotics for percutaneous approaches (12 min + 3 min)
1. To resume the different robotic systems for percutaneous and endovascular applications in IO
2. To establish the current evidence and advantages and disadvantages for the usage of robotic systems in IO clinical practice
3. To discuss possible future implementations for robotics in the fields of research and clinical practice of interventional oncology

Video Learning
VL 341 – How I do it – video learning
Tuesday, April 18, 2023; 15:00-16:30

341.1 / Thyroid (5 min + 10 min)
1. To know the indications and contraindications for thyroidal ablation
2. To learn about procedural considerations and how to avoid complications
3. To analyse the level of evidence and how to convince colleagues at the tumour board

341.2 / Kidney T1b (5 min + 10 min)
1. To appreciate the nephrometry considerations in the indications for ablation
2. To learn about the procedural considerations and how to avoid complications
3. To analyse the level of evidence and how to convince colleagues at the tumour board

341.3 / Lung ablation during one lung ventilation (5 min + 10 min)
1. To know the specific indications for ablation during one lung ventilation
2. To learn about the procedural considerations and complications
3. To analyse the level of evidence

341.4 / Pancreas IRE (5 min + 10 min)
1. To understand IRE and case selection
2. To learn about the procedural considerations
3. To be able to describe advantages at the tumour board

341.5 / Pelvic osteoplasty and screw fixation (5 min + 10 min)
1. To understand the indication for additional screw fixation
2. To learn about the instrumentation available for osteoplasty and screw fixation
3. To learn about the complications and clinical/radiological follow up examinations

341.6 / Electrochemotherapy in central liver lesions (5 min + 10 min)
1. To understand ECT and case selection
2. To learn about the procedural considerations
3. To be able to describe potential complications and results to date

Clinical Focus
CF 342 – Neuroendocrine liver metastases
Tuesday, April 18, 2023; 15:00-16:30

342.1 / Epidemiology and classification (12 min + 3 min)
1. To familiarise with the epidemiology and the latest classification of NET
2. To understand the impact of classification on the treatment strategies
3. To outline the impact of MDTB discussion on clinical outcomes

342.2 / Nuclear medicine: diagnostic, follow-up and therapy (12 min + 3 min)
1. To understand the role of nuclear medicine in the diagnosis and pre-treatment stadiation
2. To familiarise with the rationale and the technique of PRRT
3. To know how to follow up NET patients after different therapies

342.3 / Systemic therapy: what's new (12 min + 3 min)
1. To understand when systemic therapy is indicated
2. To learn about the latest developed systemic therapies
3. To know about the clinical outcomes of systemic therapy

342.4 / Surgery: indications and limits for debulking purpose (12 min + 3 min)
1. To understand the role of surgery in NET (primary tumour and metastatic disease)
2. To familiarise with the concept of "tumour debulking" in NET
3. To know the clinical outcomes after surgery of NET

342.5 / Ablation: stand alone therapy and complement to surgery (12 min + 3 min)
1. To learn about the indications of percutaneous ablation as stand alone therapy in NET
2. To know when ablation and surgery may work together
3. To know the clinical outcomes after ablation of NET

342.6 / Intraarterial therapies: palliative vs curative intent, how and when (12 min + 3 min)
1. To understand the specific roles of different intraarterial therapies in NET liver metastases
2. To learn when and how to combine intraarterial therapies and PRRT
3. To know the clinical outcomes of intraarterial therapies in NET liver metastases

IASIOS
IA 343 – IASIOS: Helping make Interventional Oncology a mainstream discipline in cancer care
Tuesday, April 18, 2023; 15:00-16:00

343.1 / What is quality assurance and why is it appropriate for IO? (8 min)

343.2 / The creation of IASIOS and what it aims to achieve (8 min)

343.3 / The successful promotion of IASIOS at local meetings – how and why it works (8 min)

343.4 / The obstacles to the adoption of IASIOS outside Europe and how to overcome them (8 min)

343.5 / How the IASIOS team at the CIRSE office supports enrolled centres (8 min)

343.6 / Panel discussion (20 min)

Clinical Focus

CF 351 – Planning percutaneous tumour ablation – what we can learn from radiotherapy and what we need to develop ourselves

Tuesday, April 18, 2023; 17:00-18:30

351.1 / Planning in radiation oncology – from Chinagraph pencils to supercomputers (15 min)

1. To learn the historical development of planning in radiation therapy
2. To understand the importance of radiotherapy planning in a clinical setting
3. To learn about the state of the art in radiotherapy planning

351.2 / The importance of tumour margins in percutaneous ablation (15 min)

1. To understand the importance of ablation zone assessment in clinical practice
2. To learn about the techniques available for optimising assessment of the ablation zone
3. To learn about the clinical outcomes of the assessment of ablation zones in a clinical setting

351.3 / Percutaneous ablation: the role of planning and assessment software (15 min)

1. To learn about the types of software available for planning the ablation of solid tumours
2. To explain the challenges and limitations of planning for ablation
3. To learn about the outcomes of planning for ablation

351.4 / Stereotactic percutaneous tumour ablation: a practical tool or a curiosity to be admired and ignored? (15 min)

1. To explain the concept of stereotactic thermal ablation
2. To understand the challenges and logistic implications of stereotactic ablation
3. To learn about the outcomes of stereotactic ablation

351.6 / Panel discussion (30 min)

Basic Course
BC 353 – Liver 3
Tuesday, April 18, 2023; 17:00-19:00

353.1 / TACE and ablation complications: How to avoid, how to recognise and how to manage (20 min + 10 min)

353.2 / Radioembolisation: current available tools and dosimetry (20 min + 10 min)

353.3 / TARE in HCC patients: good indications and good practice (20 min + 10 min)

353.4 / Radioembolisation out of HCC: CRC, iCC, melanoma and others… (20 min + 10 min)

Course learning objectives:
1. To build a clinical practice in diagnostic and therapeutic image guided liver intervention
2. To select the best treatment option for a given clinical situation
3. To discuss surgical, radiation, and medical oncology treatments at tumour board and with referred patients
4. To interact with the other physician in charge of cancer treatment to provide best diagnostic and therapeutic option to the patient "

Clinical Focus

CF 411 – Why an IO should be on the tumour board: metastatic colorectal cancer

Wednesday, April 19, 2023; 08:30-10:00

411.1 / The ESMO perspective: guidelines 2023 (12 min + 3 min)

1. To inform about the general concept of therapeutic strategies
2. To define the role of ablative treatments in the (updated) algorithms
3. To make interventionalists understand the general principles of systemic treatment

411.2 / The ideal patient to treat: the surgeon (12 min + 3 min)

1. To inform about the technical criteria for resectability of liver and lung mets
2. To discuss the relevant clinical and molecular factors, pro and against surgery

411.3 / The ideal patient to treat: the interventional oncologist (12 min + 3 min)

1. To inform about the technical and radiographic criteria for various ablative treatments
2. To discuss relevant clinical and molecular factors, pro and against ablative treatments

411.4 / Case presentation: management of synchronous metastatic disease (5 min)

411.5 / Panel discussion (10 min)

411.6 / Case presentation: bilateral lung metastases (5 min)

411.7 / Panel discussion (10 min)

411.8 / Case presentation: bilobar liver metastases (5 min)

411.9 / Panel discussion (10 min)

Clinical Focus
CF 412 – Emergencies in IO
Wednesday, April 19, 2023; 08:30-10:00

412.1 / IO emergencies in ENT (12 min + 3 min)
1. To describe the role of IO in this indication
2. To report the different IO techniques
3. To appreciate the efficacy

412.2 / Haemoptysis: bronchial, pulmonary artery – how I do it (12 min + 3 min)
1. To detail the procedure
2. To recognise the challenges
3. To share current results

412.3 / Life threatening post biopsy complications: examples and prevention? (12 min + 3 min)
1. To identify the biopsies at risk in different organs
2. To list the main complications and how to deal with them
3. To give prevention measures

412.4 / Post surgical biliary complications: what is the role of an IR? (12 min + 3 min)
1. To detail the different surgical procedures
2. To list the potential complications
3. To emphasise the role of IR in this indication

412.5 / Acute superior vena cava syndrome and lower extremity oedema (12 min + 3 min)
1. To review the clinical consequences of vena cava compression
2. To list the potential indications of IR
3. To give some examples of complications

412.6 / Pelvic haemorrhage: from bladder to rectum (12 min + 3 min)
1. To detail the procedure
2. To recognise the challenges
3. To share current results