

Intracoronary Guidance in Complex PCI

28th – 29th October 2019

Hospital Clínico San Carlos

Aula Durán Sacristan
Calle del Prof Martín Lagos, s/n,
28040 Madrid
Spain

Course Directors:

Prof Javier Escaned, Dr Justin Davies

Faculty: Dr Rasha Al-Lamee, Dr Nieves Gonzalo, Dr Colm Hanratty, Dr Allen Jeremias, Dr Hernán Mejía-Rentería, Dr Dejan Milasinovic, Prof Flavio Ribichini, Dr Richard Shlofmitz, Dr Simon Walsh.

Welcome to the Intracoronary Guidance in Complex PCI Course.

We have been running physiology and imaging courses for over 6 years, and in that time have seen the field change as the influence of technology makes a greater and greater impact.

Recently, the development of iFR and co-registration for both physiology and imaging, the field has continued to evolve at a faster pace to move intracoronary guidance techniques to not just act as gatekeepers to treatment, but, also to be important tools for guidance of treatment. These important tools continue to evolve and improve revascularization treatment and decision-making in an ever-aging patient population with increasing complex coronary artery disease. This was perhaps most elegantly demonstrated recently in Syntax 2. This trial showed that by implementing best practice in intracoronary guidance, with modern drug eluting stents and medical therapy that it was possible to significantly improve clinical outcomes in patients with complex multi-vessel disease.

Over the next two days we will cover all of the key development steps and data to support the use of these latest clinical techniques. You will see that we are privileged to have a distinguished faculty; all of whom are engaged in cutting-edge research in the field of intravascular imaging and coronary physiology in addition to being expert PCI operators.

The program is designed to be very open, uniquely with as much time given for discussion after talks as the time given for the talks themselves. All speakers are prepared to field your questions; if you prefer to wait until the end of the talk, please do so, otherwise, just jump right in and ask the speaker for clarification. Chances are if you have a question about something so will several other people in the audience.

The course will be largely based on live learning from live case transmissions, linked to the meeting room with cutting edge technology which will facilitate discussion and interaction with all attendees. We will be delighted to bring live case demonstrations from Belfast Health and Social Care Trust, Belfast, Northern Ireland, UK and Hospital Clinico San Carlos, Madrid, Spain to showcase the application of physiology and imaging and co-registration in contemporary clinical practice to guide complex PCI, as well as recently incorporated technologies for the treatment of specific lesion subsets. You will all have the opportunity to interact with both the facilitators and the catheter laboratory team via the live link throughout the case. Again, if you have questions for any member of the live case team, please go ahead and ask.

The simpleeducation.co website provides a huge resource of key course material, your attendance certificate, live case demonstrations, information on the latest studies and clinical trials. All of this will be housed within your own customised educational passport.

Finally, on behalf of the entire faculty team, we would like to thank you for taking the time to attend the course. We hope you find the course informative and stimulating, leaving you prepared to implement the latest contemporary intracoronary guidance techniques in your catheter laboratory. We wish you a very pleasant and fruitful stay in Madrid.



Prof Javier Escaned



Dr Justin Davies

Monday 28th October 2019

09.00–09.10 Welcome and introductions
Javier Escaned, Justin Davies

09.10–09.25 Best practices and personalised medicine in complex PCI
Javier Escaned

09.25–09.40 Essential steps for physiology-based PCI planning and guidance
Allen Jeremias

09.40–09.55 Essential steps for intracoronary imaging-based PCI planning and guidance
Nieves Gonzalo

09.55–10.10 DEFINE-PCI: Assessment of residual ischaemia after successful PCI
Allen Jeremias

10.10–10.25 Discussion

10.25–10.40 *Coffee Break*

10.40–11.00 Planning of Live Case 1

11.00–12.30 Live case from Hospital Clínico San Carlos
Moderators: **Justin Davies**
Allen Jeremias

12.30–13.00 Flash presentations based on Live Case 1

13.00–14.00 *Lunch*

14.00–14.15 Intracoronary diagnostics in multivessel disease PCI
Flavio Ribichini

14.15–14.30 Contemporary use of excimer laser in complex PCI
Richard Shlofmitz

14.30–14.45 Contemporary aspects of PCI in heavily calcified vessels
Javier Escaned

14.45–15.00 Discussion

15.00–16.15 Live case from Hospital Clínico San Carlos
Moderators: **Rasha Al-Lamee**
Flavio Ribichini
Richard Shlofmitz

16.15–16.30 Discussion & Flash presentations based on Live Case 2

16.30–16.45 *Coffee Break*

16.45–17.15 Complex PCI case: learning points and discussion
Dejan Milasinovic
Rasha Al-Lamee
Allen Jeremias

17.15–17.25 Getting the most out of this course: online-resources, and certification
Justin Davies

17.25–17.30 Closing remarks day 1
Javier Escaned/Justin Davies

17.30 *Close of the Day 1*

Tuesday 29th October 2019

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- 08.30–08.45** Functional assessment of coronary stenosis prior to TAVI
Flavio Ribichini
- 08.45–09.00** Coronary bifurcations: an update on diagnosis, PCI planning and guidance
Dejan Milasinovic
- 09.00–09.15** Planning of Live Case 3
- 09.15–10.30** Live case from Belfast
Moderators: **Nieves Gonzalo**
Javier Escaned
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- 10.30–10.45** *Coffee break*
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- 10.45–11.00** Intracoronary guidance in acute coronary syndromes
Hernan Mejia-Rentería
- 11.00–11.15** Revascularisation in stable angina: a contemporary perspective
Rasha Al-Lamee
- 11.15–11.30** Planning of Live case 4
- 11.30–12.30** Live case from Hospital Clinico San Carlos
Moderators: **Dejan Milasinovic**
Rasha Al-Lamee
- 12.30–12.45** Flash presentations and discussion based on Live Case 4
- 12.45–13.00** Stent failure: contemporary aspects of diagnosis and treatment.
Nieves Gonzalo

13.00–14.00 *Lunch*

14.00–14.15 Artificial intelligence and coronary diagnostics
Justin Davies

14.15–15.15 Get me out of here! Problem solving on complex PCI
Cases provided by participants

15.15 Summary and Q&A session
Course Directors

15.30 *Close of the meeting*

Biographies

Prof Javier Escaned is Head of Interventional Cardiology Section at Hospital Clínico San Carlos (Madrid, Spain). He trained as a cardiologist in the United Kingdom before moving to the Thoraxcenter / Rotterdam (The Netherlands), where he obtained his PhD degree in 1994. A skilled interventionalist with over 25 years of experience, he regularly serves as live case operator and educationalist in global events like EuroPCR, TCT or the ESC Congress. He is author of over 350 PubMed indexed scientific articles (h-index 58) on topics that include complex PCI in multivessel disease (principal investigator of SYNTAX II study), left main and chronic total occlusions, and secondary revascularization. His track record in coronary physiology includes being investigator on pivotal FFR trials like DEFER (1998), collaborator with Justin Davies in the validation and clinical implementation of iFR (since 2010), and developer of new methods for the assessment of microvascular and non-obstructive coronary disease. Recent / ongoing trials as Co-PI include ADVISE, ADVISE II, DEFINE FLAIR and ABSORB II PHYSIOLOGY, being investigator also in ILUMIEN I and IV, COMBINE and other studies on coronary imaging. Latest editorial contributions are the textbooks “Coronary Stenosis. Imaging, Structure and Physiology”, (co-editor Patrick Serruys) and “Physiological Assessment of Coronary Stenoses and the Microcirculation” (co-editor Justin Davies). Current or recent board positions in scientific societies include EuroPCR, EAPCI, EuroCTO and the ESC Working Group of Coronary Pathophysiology and Microcirculation. Some of his additional interests are philosophy, education and music.



Dr Justin Davies is a consultant interventional cardiologist at Hammersmith Hospital, Imperial College NHS Trust, London. After training at Imperial College, he won a prestigious BHF research fellowship to study arterial haemodynamics. Since then he has continued to work on the development of mathematical algorithms to aid understanding of large artery physiology and to develop new tools to assess arterial disease.

The holder of several patents, he has published widely in the field of hypertension, coronary and large artery physiology and is the winner of many national and international awards. He has several international collaborations, and is the developer of iFR and the co-principal investigator of the ADVISE studies, the DEFINE-FLAIR, ORBITA and DEFINE-PCI studies. Justin also has an interest in renal denervation, and has led the first-in-man studies to evaluate the safety of this technique to patients with chronic systolic heart failure (REACH studies).

Dr Rasha Al-Lamee is an Interventional Cardiology Consultant at Imperial College Healthcare NHS Trust in London, UK. Dr Al-Lamee's research interests are complex coronary intervention, coronary physiology and invasive intravascular assessment. She designed, conducted and led the ORBITA trial and is the lead author of the primary publication in The Lancet. At Imperial College, she is actively involved in the development and recruitment for a number of multi-centre clinical trials.



Dr Al-Lamee has over 40 peer-reviewed publications and has presented at international Cardiology conferences worldwide throughout her clinical career.

She studied at the University of Oxford and University College London. She went onto complete her training as a junior doctor on the Barts and the London Medical rotation before being appointed as a Specialist Registrar on the North West London Cardiology rotation in 2006. Dr Al-Lamee has twelve years of Cardiology experience and completed three years of Interventional Fellowship training at Hammersmith Hospital in London. She also spent a year training as an Interventional Fellow under the supervision of Professor Antonio Colombo in Milan. She completed specialist training in Cardiology in 2013.



Dr Nieves Gonzalo is Consultant Interventional Cardiologist at the Interventional Cardiology Department at Clinico San Carlos University Hospital in Madrid. She obtained her Specialist Certification in Cardiology after training at Clinico San Carlos University Hospital in Madrid. Subsequently, she underwent a research fellowship at Thoraxcenter, Erasmus University Rotterdam (The Netherlands) under the supervision of Professor Patrick Serruys, focused mainly in intracoronary imaging and bioabsorbable stents. In 2010 she obtained her PhD with the thesis "Optical coherence tomography for the assessment of coronary atherosclerosis and vessel response after stent

implantation". Her track record includes over 170 articles indexed in PubMed, as well as book chapters in Interventional Cardiology textbooks. Recent research projects as principal investigator includes a study about the assessment of neoatherosclerosis and its clinical impact in patients with restenosis (RIBS IV and V OCT substudy) and research regarding vessel injury and healing evaluation with different stent platforms evaluated with OCT (VISTA study). Dr Gonzalo is a dedicated educationalist with involvement in many areas of complex PCI, serving currently as Programme Committee Member of EuroPCR.

Dr Colm Hanratty is a consultant cardiologist at Belfast Health and Social Care Trust, Belfast, Northern Ireland, UK which is one of the largest NHS trusts in the UK. The centre performs ~2750 PCI per year, with 650-700 STEMI and calcium modification in ~10% of our PCI cases. The Belfast Trust is an acute infarct centre, tertiary referral centre and university teaching hospital.



Dr Allen Jeremias, MD, MSc, is the Director of Interventional Cardiology Research and Associate Director of the Cardiac Catheterization Laboratory at St. Francis Hospital, Roslyn, NY. He is also a member of the Cardiovascular Research Foundation, New York, NY where he currently serves as the Director of the Physiology Core Laboratory. He completed his Medical training at The Cleveland Clinic Foundation, Stanford University School of Medicine, as well as Beth Israel Deaconess Medical Center,

Harvard Medical School. Dr. Jeremias has numerous publications in the area of coronary physiology and intravascular imaging.

Dr Hernán Mejía-Rentería is Interventional Cardiologist at Hospital Clinico San Carlos (Madrid, Spain). He graduated from the Medical School of Universidad del Valle (Colombia) and underwent specialty training in Cardiology from 2010 to 2015 at Hospital Clinico San Carlos, Madrid, Spain. Subsequently, he completed his subspecialty training as Interventional Fellow in 2017 at the same institution. Main areas of research include functional imaging and physiological assessment of coronary circulation. He has published numerous articles on coronary physiology, intracoronary imaging, and served as Deputy Editor in the recent textbook “Physiological Assessment of Coronary Stenoses and the Microcirculation) published by Springer. His main research interests are focused on coronary artery disease, physiology and imaging. Dr Mejía-Rentería played a key role in the design and implementation of the ongoing Coronary-Cerebral Connection (C3) study and will make the defense of his PhD thesis at the Universidad Complutense de Madrid in 2019.



Dr Dejan Milasinovic is an Intervention Cardiologist at Unit for Invasive Diagnostics and Interventional Cardiology, Department of Cardiology, Clinical Center of Serbia. He is also an Assistant Professor/Teaching Assistant – Faculty of Medicine, University of Belgrade, Serbia.

Dr Milasinovic as a local Sub-Investigator of these clinical trials: CONDI-2, COMPLETE, SHEAR-STENT, PzF SHIELD, APPOSITION V, MASTER-DAPT.

He is a member of European Association of Percutaneous Cardiovascular Interventions (EAPCI) New Initiatives for Young Interventionalists Committee, EAPCI Digital Communication Committee, EAPCI Education & Training Committee, EAPCI Fellowship Committee and Cardiology Society of Serbia.

Prof Flavio Ribichini is Professor of Cardiovascular Medicine at the University of Verona and Director of the Cardiovascular Interventional Unit at the University Hospital.

He teaches at the School of Medicine of the University of Verona at different courses, medical students, nurses, physiotherapists, residents of the School of Cardiology and PhD students. Director of the PhD School of Life and Health Sciences of the University of Verona. Member of the Task Force for Guidelines in Myocardial

revascularization of the European Society of Cardiology. Member of the Editorial Board of the European Heart Journal since 2010. Member of the European Rotablator Club, the European Bifurcation Club and the European Expert group on Impella circulatory assistance. He is coordinator, Principal Investigator or member of the steering committees of several clinical trials. He is also the author of over 200 full publications on clinical and basic cardiovascular research in peer reviewed scientific journals available on PubMed.



Dr Richard A. Shlofmitz, MD, FACC is the Chairman of Cardiology at St. Francis Hospital, The Heart Center®, in Roslyn, New York. A pioneer in interventional cardiology, Dr. Shlofmitz has worked to advance the field, with a focus on optimizing outcomes with the development of Precision PCI. He is a founding co-director of the annual Intravascular Imaging and Coronary Physiology Workshop. Performing over 1,000 coronary interventions annually, he has one of the largest volumes of experience in PCI. He has the most clinical experience with orbital atherectomy and OCT world-wide. His clinical research interests focus on optimizing coronary interventions and he serves on multiple scientific advisory

boards and clinical trial steering committees to further this mission. Dr Shlofmitz has been one of the largest enrollers for multiple clinical trials, including TWILIGHT, ILUMIEN III, and Onyx, with more than 75 publications in peer-reviewed journals and was first to perform coronary intravascular lithotripsy (IVL) in North America as part of the DISRUPT CAD III trial.

Dr Simon Walsh has been working as a Consultant Cardiologist at the Belfast Trust for over 10 years. It is one of the largest NHS trusts in the UK. The centre performs ~2750 PCI per year, with 650-700 STEMI and calcium modification in ~10% of our PCI cases.

Dr Walsh also works internationally as an educator, teaching advanced techniques for complex PCI and CTO PCI. This involves training visiting Cardiologists in Belfast retrograde CTO techniques, antegrade dissection and re-entry CTO techniques and other advanced PCI procedures. He has visited multiple centres in the UK, Ireland, Europe, Australia, Asia and North America to act as a visiting proctor for complex PCI and CTO PCI cases.



Dr Walsh's research interests include PCI, coronary artery disease, defibrillation, acute coronary syndromes and chronic total occlusions.

Research responsibilities have included acting as a recruiting investigator for the >25 multicentre studies over the last 17 years. He acted as a primary investigator for numerous international trials including the Evolve, Noble, Leaders Free and Ischemia multicentre studies. He has been the lead UK investigator for the October trial, Syntax 2, Recharge and Ischaemia-CTO. He is also the Chief Investigator for the Consistent CTO, Celtic Bifurcation and Discrete CTO trials.

Notes:

Your Access Advances to Post Course Content

All the content from SIMPLE education essential guide Intracoronary Guidance in Complex PCI Course will be freely available to course participants at www.simpleeducation.co. This gives you continuous access to:

- Course Overview
- Speakers' Slide Decks
- Live Case Transmissions
- Course Certification
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Login to your www.simpleeducation.co account, visit the [Dashboard](#) and all course content will be found in your [Recently Added Moments](#). SIMPLE Education is constantly updated with the latest advances in coronary physiology, providing you with an on-demand web interface, content from leading cardiologists and Radcliffe Cardiology Journals. A personalised [Passport](#) has been created in your account where all your [Moments](#) of content are collated and saved for future reference.

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