



Jean Fajadet



Goran Stankovic

## Perspectives on new learning modalities for interventional cardiologists

Continuing medical education plays a significant role in the field of interventional cardiology as it continues to evolve. The field has seen dramatic changes over the years in the variety of devices and techniques employed to help improve outcomes of patients with structural cardiovascular diseases. *Confluence* spoke with Dr Jean Fajadet, co-Director of the Interventional Cardiovascular Group at Clinique Pasteur, and Professor Goran Stankovic, Associate Professor of Medicine at the Department for Diagnostic and Catheterisation Laboratories, Clinical Centre of Serbia, to discuss the novel interactive live broadcasting series from Clinique Pasteur.

### Why is continuing medical education so important for interventional cardiologists?

**Dr Jean Fajadet (JF):** Continuing medical education (CME) is crucial in all specialities of medicine due to ongoing innovation in diagnostic tools, treatments and pharmacology. CME is extremely important for interventional cardiology in particular, where significant progress has been made in the field over the last 30 years with regard to both devices and techniques. Today, percutaneous interventions are performed not only for the treatment of coronary artery diseases, but also to address a broader range of conditions, including valvular disease, heart failure and peripheral artery disease.

Interventional cardiology is a young and very large speciality, with multiple targets. When managing cardiovascular diseases, we must consider how the treatment used will impact the patient's survival and quality of life. Education is mandatory, not only for Fellows who have just finished their medical cardiology and interventional cardiology curriculum, but also for interventional cardiologists who completed their medical studies many years ago – both groups need to be updated regularly with new evidence from clinical studies to enable them to establish best practice. Above all, education is needed to improve the quality of care.

**Prof. Goran Stankovic (GS):** For myself, the main goal of CME is to improve the treatment of patients and their outcomes. To this end, a platform of 'Heart Teams' has been developed for many cardiovascular diseases, such as coronary

artery disease and valvular disease, thanks to the European Association of Percutaneous Cardiovascular Intervention (EuroPCI). These Heart Teams are a forum for the exchange of education between specialists, allowing them to make more accurate diagnoses and decide on the optimum treatment strategies for each individual patient. This fosters a team-building spirit among the comprehensive care team, which includes interventional cardiologists, cardiac surgeons, anaesthesiologists and the many other different specialties involved in the decision-making process.

### What educational training methods do you use for interventional cardiologists?

**GS:** From the perspective of my own institution, we work under the umbrella and guidance of the EuroPCI. At the level of local practice, I arrange weekly clinical seminars to expose fellows to a range of topics and organise classes to discuss two or three recent publications, reviewing the importance of their findings for general practice. For more advanced Fellows, we use smaller workshops, which include simulations and bench testing where different techniques can be practised to help discern their advantages and disadvantages. Under the umbrella of the National Working Group, we also organise two annual meetings for interventionalists in our local area, namely the Belgrade Summit of Interventional Cardiologists (BASICS) and the Serbian Conference on Interventional Cardiology (SINERGY).

## What role do scientific meetings play in CME?

**JF:** Physical meetings – such as EuroPCR and the different meetings of the PCR family – are very important. As well as learning about new devices or techniques, the meetings also help to reassure the attendees of methods used in their daily practice. They provide a platform where data presented in late-breaking trials, or topics concerning innovation, can be discussed in an interactive manner; the variety educational methods and tools used in these meetings is really important. Meeting with colleagues from all different countries and backgrounds also creates an opportunity to discuss the technical points of a device with the industry partners, which is a fantastic way of networking with your peers.

**GS:** Yes, I agree – EuroPCR, which meets once a year in Paris, is important for discussing the current state of the art in keynote lectures, or a late-breaking trial. The task for that meeting is not only to update attendees on current practices, but also to provide updates on new techniques, rather than just new devices. During the year, we also try to work more locally with colleagues in the field, inviting leaders in a specific therapy area, such as Dr Fajadet, to broadcast a lecture or provide updates on a topic. We then try to discuss and exchange this information locally. Discussion is the most important factor, as it helps us to find the most appropriate way to use that information in our daily practice.

## What role does digital media play in CME?

**GS:** It is extremely important to raise the level of education by including digital media, which allows us to exchange information rapidly and receive updates for the most recent advances in the field. The way that education is transmitted today is much faster than just a few years ago. As well as the basic education that everybody receives as a prerequisite from national working groups or national societies, digital media exchange, along with the internet, can provide us with the latest knowledge and innovations on a day-to-day basis. For example, by using digital media we were able to broadcast results from a recent study that we published, RIDDLE NSTEMI, to several centres in Europe, and also to the Washington Hospital Centre. By exchanging

digital messages with colleagues, the quality of everyday treatment is increased in hospitals.

**JF:** As Prof. Stankovic said, digital media and the use of the internet is a valuable resource. For example, PCRonline.com provides really interesting updates on the latest studies, outstanding live case interventions and demonstrations of new techniques or new devices.

## What does the educational broadcasting series with Clinique Pasteur involve?

**JF:** The broadcasting series with Clinique Pasteur, sponsored by Medtronic, is an interactive educational webcast transmitted directly from the catheterisation (cath) lab. We planned 10 broadcasts – one per month – which aimed to cover key topics in interventional cardiology, such as the treatment of patients with left main bifurcations and multivessel disease, as well as the procedure of transcatheter aortic valve implantation (TAVI).

Each session in the series is divided into two parts; the first is around 45 minutes and involves a case being presented in the cath lab, followed by questions and answers from the participating centres, which are facilitated by the operator. The second part, which follows immediately after, is where myself and my partner at Clinique Pasteur, Dr Bruno Farah, answer questions from the participants directly.

**GS:** As a moderator for the broadcast, my role was to put forward all the questions from the group, collect responses, pass on comments and give answers that helped to prompt discussion. There was a large group of more than 20 participants from my centre in Belgrade who were joined by others from different cath labs across the 13 centres in Serbia. As Dr Fajadet said, the live-case transmission was just the initial phase of the meeting. Afterwards, we assessed the key learning outcomes from the case, which were used as a platform to start a discussion on how to overcome potential problems and how to implement the techniques in our practice. Our aim is to try and guarantee that the attendees have the right skill set to undertake similar cases as those presented. We are not promoting the use of techniques outside the ability of the attendees, but hopefully the broadcasts will give them the confidence to perform certain procedures if they feel comfortable.

### How are the live broadcasts managed?

**JF:** Broadcasting in an interactive manner is an interesting way to deliver education. Experience with transmission is important; I have been doing live cases for more than 25 years now, but the interactive broadcast is different from a traditional live-case. For example, at EuroPCR, there are two Chairpersons in the auditorium who drive questioning and organise discussion with both the panellists and audience. A good connection between the Chairs and the operator allows for a nice flow to the broadcast.

Initially, I had concerns that there would be difficulty with facilitating interaction between operators at different centres, and a risk of too much traffic on the line for the questions and answers. However, the process ran smoothly, likely due to the availability of two modes of interaction. The first is via microphone; when you are the operator, a question is asked by a colleague in a different hospital and the answer can be given directly through the microphone. The second option is to answer the question typed on the screen via the internet. This option works nicely, as during the live cases you have different questions coming from the participating centres. The role of the operator, of which you need at least two, is to answer all of the people during the live-transmission, question after question.

### Do you think that the interactive element was successful?

**JF:** Globally, the experience has been very positive. This is the first year that we have done this kind of live webcast and it has been a pleasure to participate in a new format of education. This method of education is different from performing a direct live demonstration transmitted to a single meeting room. For me, a key outcome is to learn that broadcasting in this interactive manner is feasible; we have demonstrated that having one live centre with around 10 or more satellite centres connected and interacting at the same time works.

**GS:** I completely agree with Dr Fajadet. This broadcasting series is the first step for introducing this type of webcasting as a method of education. Case-based scenarios focused around the treatment of patients with specific comorbidities and anatomy teaches knowledge that can be applied in the real world, and helps to summarise the best treatment options. For me, a great

learning tool is accumulating knowledge from registry data from a multi-centre trial and applying that knowledge to one individual case.

Additionally, with this type of live-case study, you really feel like a participant, not just somebody watching experts perform a procedure on screen. There was a strong focus on communication throughout the broadcast, as well as active participation in a discussion on all the available treatment options. The series allowed us to bring the experts directly to everybody's cath lab. At EuroPCR, you can see the slides, you can hear the voice of a late-breaking clinical trial presentation, but webcasting allows us to discuss and exchange practices in an interactive way; I think that this is the main advantage. I received very positive feedback from my whole group, who requested that we have training in this form more frequently. They would like to see a broader range of topics included; on this occasion, the topic was bifurcation and left main treatment, but I think that similar cases performed by someone who is a leading expert in their field, with the possibility to switch from one strategy to the other and respond to requests from the group, could really be a superb form of high-level education.

### Are there any challenges associated with this method of CME?

**GS:** I think that the only challenge in broadcasting was the number of centres involved in the transmission, as, of course, every centre has multiple questions. Ideally, every group should have the opportunity to ask all of their questions. I would suggest looking for the most suitable way of being able to perform the best procedure, whilst simultaneously maintaining a high level of communication.

**JF:** As Prof. Stankovic said, we need something to improve the flow of questions and answers. We could try grouping the questions coming in from different hospitals into categories, merging similar questions so that a collective answer could be provided. I think that this could help to improve the fluency of the questions and answers.

**GS:** It is important to also note that good preparation is the key to success. The last time I participated, I had the privilege of being a member of Dr Fajadet's group at EuroPCR, where we had several preparatory sessions, as well as conference calls before the meeting with both

the centres and panellists. By doing that, the process becomes synchronised, the flow is improved and everybody is stimulated to actively participate. This active participation is what improves the overall quality of the broadcast.

### How do you see CME in interventional cardiology changing in the next 5 years?

**JF:** There should certainly be even more ways of delivering medical education. The large meetings, such as EuroPCR, must be mandatory, as they have the capacity to host the most important teachers in interventional cardiology in the same place at the same time. However, I strongly believe that we must also dedicate time to a more focused learning experience with regard to a specific topic or technique. By this measure, the use of internet broadcasts, such as the Clinique Pasteur webcasts with Medtronic, will become really important.

Another important point is the development and dissemination of new knowledge and techniques online. I am always astonished by the number of people connected via the internet, through channels such as PCRonline.com and what we call 'digital information'. More and more people, particularly the younger generation, are connected every day. This is the difference that we have seen in the last 20 years with a new generation, so we have to adapt our methods of communication.

**GS:** I am a strong believer that the use of simulation as an educational tool is currently not exploited to the level that it should be. For example, software for the simulation of bifurcation treatment has previously been developed alongside a series of PCR seminars that were held in several cities across Europe. In the future, technology akin to virtual reality or holograms could be used to

better understand 3D structures, so that when entering the cath lab, you feel confident that this is a procedure you have already practised, and many of the potential problems that could arise have already been foreseen. We also need to respect regional and local needs, perhaps by having regional meetings focused around a specific topic, for example the need to improve treatment of ST Segment Elevation Myocardial Infarction (STEMI). Within our everyday practice, we need to work more throughout the year, and the kinds of broadcasting cases like the one from Clinique Pasteur should actually stimulate other industry partners to move in a similar direction.

**JF:** I fully agree – we have to be really connected with local educational needs, which can vary from country to country. A tailored form of education will become important, and needs first to evaluate what the needs of an area are, and what the main questions of the specialists within that region are. Focusing educational meetings and educational activities on that specific need will be important for delivering education successfully.

Fundamentally, when we are talking about education, we have to talk about new techniques and new tools with real honesty. For me, what I have tried to do in the last 30 years is to be really independent of the industry. We need industry to support the educational activities, but we must deliver the message with total independence and no bias. This is what I like about the Medtronic webcast; we are not talking about the product or the device, but are instead focusing on a technique that could be performed using any brand of stent. As specialists, we need to work together as a group of people who are independent of bias.

#### Address for correspondence

Dr Jean Fajadet  
Clinique Pasteur  
45 avenue de Lombez  
BP 27617  
31076 Toulouse Cedex 3  
France

[j.fajadet@clinique-pasteur.com](mailto:j.fajadet@clinique-pasteur.com)

+33 (0)5 62 21 16 99

Professor Goran Stankovic  
Department for Diagnostic and  
Catheterisation Laboratories  
Clinic for Cardiology  
Clinical Centre of Serbia  
Dr Koste Todorovica 8  
Belgrade 11000  
Serbia

[gorastan@sbb.rs](mailto:gorastan@sbb.rs)

+381 113613653

---

**DISCLOSURES:** JF: Educational Grant from ABBOTT, Boston Scientific, Medtronic, Terumo. GS: nothing to disclose.

---