

The EACTS summer edition is here! July 2017 **Issue 16**

Dear Colleagues and Friends...



Welcome to 16th issue of the EACTS News! It was 7 years ago that the very first issue of the EACTS

News was published. Since then, we have provided you with the latest news and views from the Association up to three times a year. This issue is no different, packed with interesting articles and relevant information from the field of cardiothoracic surgery. We have an exclusive interview with European Association for Cardio-Thoracic Surgery (EACTS) President, Professor Miguel Sousa Uva (Hospital Cruz Vermelha, Lisbon, Portugal), who discusses his career, personal life, and aims during his term in office. We also hear from Professor Keyvan Moghissi (The Yorkshire Laser Centre, Goole and District Hospital, UK) on the fascinating topic of thoracic war injuries, and from various EACTS Course Directors on the courses that took place earlier this year.

This edition also includes a special article focusing on the EACTS Quality Improvement Programme (QUIP) Adult

Cardiac Database. Over the past year, involvement in the QUIP Adult Cardiac Database has accelerated rapidly, expanding into more countries and recruiting more hospitals than ever before. For more information on the QUIP Adult Cardiac Database and the EUROMACS Registry please visit the EACTS website or contact QUIP@eacts.co.uk.

The EACTS supports its members with many initiatives to improve patient care. When our founding fathers created the Association in 1986, their objectives were to advance education in the field of cardiac, thoracic and vascular interventions, and to promote research into cardiovascular and thoracic physiology, pathology and therapy, and disseminate the useful results thereof. This remains our main purpose today. To teach is to touch the future and there is no doubt we will continue to improve our Academy programme in an effort to provide you with training courses of the highest quality. More information on our Academy courses can be found on pages 8 & 9 and at the EACTS website www.eacts.org.

With training in mind, the EACTS has developed a helpful tool for residents in training – a digital Portfolio Management System (PMS) – in which it is possible to keep a record of both your proceedings and professional evaluation moments. This is important, because cardiothoracic

surgery training programmes today no longer focus solely on the acquisition of medical knowledge, but also on surgical skills, communication and attitude. These skills, both surgical and non-surgical, need to be systematically evaluated and registered to assess an individual's competency and track their progression. To avoid a big pile of paperwork, the EACTS has developed the digital PMS. The system is simple to use and free for EACTS members. More information on this system can be found on page 11. I hope you will enjoy this issue of the EACTS News and I look forward to seeing you at one of our courses! With warm regards,

A. Pieter Kappetein
EACTS Secretary General

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New Impact Factors



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An interview with EACTS President Miguel Sousa Uva

Rianne Kalkman

*EACTS Administrative Director,
Rotterdam, the Netherlands*



In this issue of the EACTS News we are delighted to bring you an interview with the 30th President of the EACTS, Miguel Sousa Uva (Lisbon, Portugal), a man of many talents:

dedicated husband, father and family man, esteemed cardiac surgeon, all round sportsman and sports enthusiast, lover of non-fiction and follower of foreign affairs, a passionate educator, striving to push the boundaries of his specialty, embracing change, and passing on his skills and knowledge to the next generation at home and across less-privileged borders!

Miguel, could you introduce yourself to our members...

I was born in Lisbon, where I did basic school, and then high school in a Jesuits college. At the time I was finishing high school, Portugal went through a radical political change, the so-called 'Carnation revolution'. The transition from an autocratic to a democratic system was accompanied by strikes and social strife, leading to disruption of the normal functioning of universities. I wanted to enter medicine, influenced by my father who was a general surgeon.

As a consequence of the political instability, my family and I decided that I had to go abroad if I wanted to become a doctor. I finally entered Grenoble University Medical School in France, when I was 17 years old, facing a tough new lifestyle: on my own, alone in a foreign country, in a much more competitive environment. I graduated in 1988 receiving the 'Diplôme d'Etat de Docteur en Médecine' following my Thesis on 'Acute aortic dissection with peripheral malperfusion'. After passing the residency competitive board, I did a rotating surgical residency in Grenoble in orthopaedics, general and thoracic surgery, urology, vascular surgery and cardiac surgery.

Why did you choose to become a cardiac surgeon?

My choice to become a surgeon was influenced firstly by the fact that my father was a surgeon and I started assisting him in operations while still in high school, and secondly by my personality traits. I like to see the results of my therapeutic intervention on the patient within a short time frame and this is only achieved by either surgery or intensive care. My first passion was vascular surgery, probably because when I was a young boy I met the great Portuguese vascular surgeon, João Cid dos Santos, who did the first endarterectomy, and was a friend of my grandparents. Vascular surgery, in many countries, it is still taught and performed within cardio-vascular departments, since coronary and aortic surgery are arterial surgical procedures. The Grenoble Vascular Surgery Department Chief, dreaming of a cardio-vascular centre, encouraged me to go to a well-known cardiac surgery department in Paris, led by Professor Guilmet. At that time, I decided to continue my training in Paris and after a short stay in Poitiers, I was accepted by Professor Carpentier in his Department at Broussais Hospital, deciding to definitely switch to cardiac surgery. After spending 2 years at Broussais as 'Chef de Clinique', I then went to Marie Lannelongue Hospital to acquire training in paediatric heart surgery in the Department of Professor Claude Planché. While finishing my training in surgical treatment of congenital heart disease, I kept a working in two Parisian Hospitals (Hospital St Joseph and Hospital La Roseraie), where I continued an adult cardiac surgery activity. In 1999 I got an invitation to join a newly created group in Lisbon at the Red Cross Hospital (Hospital Cruz Vermelha).

So, back to your roots?

Yes, I went back to Lisbon in 1999, where I currently live, after 10 years in Grenoble and 10 years in Paris. Lisbon, as every EACTS member knows, is a very pleasant city. The weather is good, the food and the wine are excellent at reasonable prices, it is near the ocean, with great beaches and it is safe. I consider myself privileged to wake up and see the amazing light of the city and the blue waters of the Tagus River every morning.



Tell us a bit about your family...

My father, who is 89 years old, was a general surgeon and my mother, who is 81, is a retired psychoanalyst. My parents divorced when I was a child and later they both remarried. I have two younger brothers who live in Lisbon. One is a dentist and the other is a dermatologist. I met my French wife in Chambéry, a small city next to Grenoble, where she was doing her residency in ophthalmology. We married in Grenoble and had one son, Raphael, who was born in France. He was not attracted by medicine. After all there were already too many doctors in the family! He decided to attend Law School, then completed a Masters in Fiscal Law, and now works for KPMG in Lisbon. My wife works at the Red Cross Hospital in Lisbon as an ophthalmologist.

We all know that your favourite soccer team is Sporting Lisbon, but do you actually play soccer yourself?

Well yes, I still play soccer, but only occasionally, with friends, during summer holidays. In addition, every year, at the EACTS Annual Meeting, together with colleagues and friends we try to organise a European football tournament.

Do you have any other hobbies or interests outside of cardiac surgery?

I like to keep fit, in order to continue to practice my favourite sports: tennis,



mountain biking and skiing. I try to work out and play tennis, and I do it at a nice health and fitness club in Lisbon. Since I was a child, I have enjoyed small game hunting and fishing, although there is always the problem of finding time for these open-air activities. We have a small house, in the countryside, south of Lisbon, where I do some gardening and small scale farming. I also like to read non-fiction books, follow world foreign affairs and listen to pop music.

You are not only the President of EACTS, but also the Chair of the Clinical Guidelines Committee. Could you tell us more about the work of the Committee?

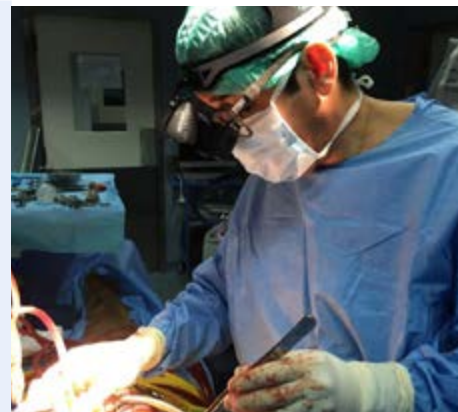
The Guidelines Committee team is composed of a group of eleven cardiothoracic surgeons from different

countries, representing the four EACTS Domains. The Guidelines Committee meets at the EACTS Annual Meeting and has a mid-year conference call. More than ever before, guidelines need to be transparent and robust, in the process of assessing the quality of the evidence supporting its recommendations. Outsourcing to Cochrane or similar organisations had elevated costs, for a limited number of surgical studies available in the literature.

The EACTS opted for an internal solution, gathering a group of fellows, with expertise in literature search, medical statistics and epidemiology, whose role is to assist guidelines taskforces, collecting data on each topic, making systematic reviews and assessing the strength of evidence supporting recommendations. This methodology seems to work quite well. One of the EACTS Clinical Guidelines Committee's main objectives is to incorporate other specialists and collaborate with other medical societies in its guideline development process. The EACTS has a track record of joint guidelines with the European Society of Cardiology (ESC), the European Respiratory Society (ERS) and other scientific organisations. Indeed, currently we have several ongoing collaborative documents. Patient blood management with the European Association of Cardiothoracic Anaesthesiology (EACTA), management of patients with valvular heart disease and myocardial revascularisation guidelines with the ESC, management of malignant pleural effusions statement with the ERS, and malignant pleural mesothelioma guidelines with the ERS, European Society of Thoracic Surgeons (ESTS) and the European Society for Therapeutic Radiology and Oncology (ESTRO).

What are you hoping to achieve during your term as EACTS President?

I think surgeons lag behind cardiologists in generating evidence to support what they do, or to support new methods or techniques. The role of Expert Consensus Papers or Guidelines produced by the EACTS is to summarise all the available evidence and, when there is no evidence or the evidence is weak, give expert guidance and suggest topics for additional clinical research. The mission of the EACTS is 'to advance education in the field of cardiac, thoracic and vascular interventions; and promote research into cardiovascular and thoracic physiology, pathology and therapy'. Many 'innovations' are introduced into practice without proper, independent, unbiased evaluation. I would like the EACTS to become a research platform, allowing the evaluation of new techniques and practice changes, leading to improved outcomes, providing the coordination and support to conduct multicentre clinical trials.



Dr. Sousa-Uva at work in Lisbon

Trials are expensive and therefore they are often funded by the industry, which is good on the one hand, but does have some known drawbacks. Finding alternatives to industry funding, although difficult, are worth pursuing and within our reach, if we are imaginative.

One of the challenges ahead of us, is how to train the future generation of cardiothoracic surgeons. We are witnessing a paradigm shift in the way patients with cardiothoracic diseases are treated. Transcatheter methods are increasingly used by other specialties to treat, not only coronary artery disease, but also aortic pathology, congenital and structural heart disease.



Dr. Sousa-Uva on one of his trips through Europe visiting Prof. Klautz's team at Leiden University Medical Center in Leiden.



How should we, in the cardiothoracic surgeons' community, react?

In some places surgeons have embraced these percutaneous techniques and perform them, most often in collaboration with cardiologists. Elsewhere, surgeons have stayed away, considering that transcatheter therapies are not within the realm of surgery. The 'who does what' also depends on local policies and regulations. The EACTS should gather a specific taskforce and provide a training platform for our residents, young and not so young surgeons, who want to embrace these new, less invasive, methods. Let it be then an individual choice. Remain a pure open 'knife and scissors' surgeon or, like vascular surgeons have done before us, adopt an additional tool into our armamentarium for treating patients, who increasingly ask for methods that avoid opening the body.

You were telling us that you are working at the Red Cross Hospital in Lisbon.

The Red Cross Hospital has a collaboration programme with the Angolan government, which I understand you are involved in. Can you tell us more about this programme? Angola was a Portuguese colony until 1975, and this programme was established in 2011 between the Angolan government and the Hospital Cruz Vermelha in Lisbon, to treat children with congenital heart disease and rheumatic valvular heart disease. A very tiny proportion of those children were sent abroad to get treatment, but there was a huge waiting list and most of these patients died before they could be treated or became inoperable. The objectives of the programme were twofold: to treat patients locally, at no cost for their families, and at the same time train local teams. Locally, in Luanda, there was one hospital with a good infrastructure, allowing

cardiac intervention. Unfortunately, with the oil crisis and its economic consequences, the programme has recently slowed down. Nevertheless, it has been a very enriching experience, from a human and professional point of view. It has opened my mind to the huge discrepancies in the access to healthcare, between our first world countries and a developing country like Angola, where infant mortality is 96/1000 live births and rheumatic heart disease is the first cause of cardiac death. Clearly, more must be done by rich countries to help developing countries get out of poverty. Building a self-sustainable cardiothoracic surgery programme in a developing country is a difficult task. It requires not only continuing education, good infrastructure and human resources, but also persistent political support and improved governance.

If you could choose, which person in the world would you like to be for one day and why?

If that could be possible, I would love to gain the wisdom of the Dalai Lama, at least for one day. Because, after that day, some of his wisdom might remain, inside my mind, changing my perception of the world.

What do you want to say to the next generation of cardiothoracic surgeons?

Quoting Charles Darwin, 'It is not the strongest of the species that survive. It is the one most adaptable to change.' And as Bruce Springsteen once said, 'the times are a-changin'; then you better start swimming or you'll sink like a stone.' So, I would say: You build your own future. Cardiothoracic

surgery is tough but rewarding if you work collaboratively and take a patient-centered approach. Be curious, observe, read, listen, practice a lot, improve a bit every day, but keep a critical mind. Find your own role model(s), be prepared to learn lifelong, acquire new technical but also non-technical skills, like resilience, situational awareness, self-control; all of which could help you climb the mountain. Yes, cardiothoracic surgery is a mountain, but the views from the top are impressive.

Thank you for your time Miguel, one last question to conclude our conversation: Are you already dreaming of your P residential address?

Yes, it keeps me awake at night!



The Angolan Cardiac Surgery team

A third objective of my term as EACTS President is to push for a greater degree of coordination with the national societies, in terms of harmonising curricula, recognition of the European Board Examination, creation of a European Certification for catheter based interventions and the adoption of the EACTS Quality Improvement Programme (QUIP) database. In trying to reach these objectives, I am fortunate to be helped by a fantastic group of colleagues on the Council. Of course, without Pieter Kappetein, the Secretary General, and Domenico Pagano, the Secretary General Elect, and the whole Windsor team, these objectives would remain hollow dreams.

the establishment of a cardiac surgery programme. This was not a humanitarian intermittent support programme, but a permanent presence in Luanda of a team composed of two surgeons, a paediatric cardiologist, an anaesthesiologist, two perfusion technicians, and 6–7 nurses. We started by training two Angolan surgeons and one of them is now capable of performing most common operations, with or without cardiopulmonary bypass (CPB). An anaesthesiologist and a pump technician are also now fully trained, while the paediatric cardiologist is currently finishing training. During the early years, I was in Luanda every 2 weeks for a period of 2 weeks at a time. Around 400 patients have been operated on per year. As at August 2015, 1539 children with congenital heart disease and 143 with valvular heart disease have received a

Multimedia Manual of Cardio-Thoracic Surgery (MMCTS) wins prestigious Interactive Media Award



The new MMCTS.org website has just won a prestigious Interactive Media Award for Best in Class in the Medical category!

The Interactive Media Awards are presented annually by the Interactive Media Council, an international group based in New York, USA, and attract thousands of entrants from all over the world. The Best in Class award is the highest honour bestowed by the Interactive Media Awards. It represents the very best in planning, execution and overall professionalism.

The Multimedia Manual of Cardio-Thoracic Surgery (MMCTS) was created in 2005 under the leadership of founding Editor, Professor Marko Turina. It was Professor Turina's vision that the EACTS, already the world leader in cardiothoracic surgery education, should take advantage of the internet's rapidly improving video publication capabilities and create a new step-by-step manual of surgical procedures.

Guided by our Editors in Chief, Dr Roberto Lorusso and Dr René Prêtre, and developed by Ashfield Healthcare, the new MMCTS website was launched on 15 November 2016 with the mission to become the most comprehensive online educational reference for cardiothoracic surgeons; residents and

experienced surgeons alike. Receiving this prestigious Interactive Media Award just 4 months after launching the new MMCTS.org website, is a real achievement.



We have many people to thank for their part in developing the new MMCTS site, beginning with **Professor Turina** for his vision in creating MMCTS along with our over **300 MMCTS authors** who volunteered their time and skills to help educate their peers by contributing video-based surgical technique tutorials.

We also need to thank **Ashfield Medical** for their work in building our site to our exacting standards; **Jane Hunter** for leading the site development; Editors in Chief, **Dr René Prêtre** and **Dr Roberto Lorusso**, for their

invaluable guidance and support; **Ruben Osnabrugge** for his insight on user experience from a surgical perspective; former Managing Editor, **Judy Gaillard**, for helping us to easily transition from the OUP platform; **Karen Jerram**, who designed our brilliant new logo; **Julia McDonnell** and her colleagues at Oxford University Press, for their help with transferring the content and for their continued support; and **Professor A. Pieter Kappetein**, EACTS Secretary General; **Kathy McGree**, EACTS Executive Director, and all our colleagues here at EACTS House in Windsor, UK, for their constant support and direction.

Our objective now is to continue to populate the site with the latest surgical technique tutorials in all of our core areas. We will also continue to improve the content already on the site by asking authors to add narration to their videos. If you are interested in helping us to further develop the MMCTS,

Please visit our 'Contributing to MMCTS' page at <http://mmcts.org/page/431> to learn more.

The president at work during an EACTS Annual Meeting, and making time for a break during a Guidelines task force meeting.



Does current training of cardiothoracic surgeons fit into the global management of war trauma injuries?



Keyvan Moghissi MD

Consultant Cardiothoracic Surgeon
Yorkshire Laser Centre, Goole and District
Hospital, UK

Throughout the ages, weapons and weaponry have influenced the nature of war trauma injuries (WTI) and their management by the 'medics'.

In the 'pre-firearm' era, WTIs resulted mostly from swords, lances, and bow and arrows. The role of 'surgeon' was to remove the arrow and pour potions in the track. This is reflected in the pictographic words of ancient languages (Figure 1).

Hippocrates is attributed as saying: "He who desires to practice surgery must go to war."

The Greeks and the Romans adopted Hippocrates principles to deal with WTIs and designated 'Medici' who marched with the legions to the battle field. Wars also became incentives for therapeutic initiatives to treat injuries and make advances in surgery. Hippocrates is attributed as saying: "He who desires to practice surgery must go to war." He also introduced the concept of the 'golden hour,' referring to the relationship between the time of initiating treatment and survival. The use of firearms in battles changed military medicine, with several significant milestones:

- **Barron Dominique Larry, the surgeon in Napoleon Bonaparte's army, laid the foundations of modern WTI surgery, by introducing the principles of triage near the front line and rapid transport of the wounded by ambulance volante to field hospitals.**
- **In World War I (WW-I), advances in weaponry and the use of gas for the first time, necessitated new tactics in military medicine, which included 'casualty clearing stations,' motorised transport, prioritisation of casualties allowing conservation of fighting manpower, and provision of a multi-specialty surgical team in well-equipped field hospitals.**
- **In WW-II and the Vietnam War, the mobile army surgical hospital (MASH) (the modern equivalent of ambulance volante), novel approaches to wound and fracture management, evolved with the use of blood transfusions, and the use of anti-microbial agents, appeared in the military medicine's armamentarium.**



WTI management has thus followed the evolution of wars and their weaponry, and thereby determined the role of surgeons over time.

Currently, when we look at the images of carnage, devastation and injury projected on our television screens day after day, transmitted live from battlefields, towns, villages and streets, often caused by weapons aimed at civilians by faceless terrorists, it may be questioned whether the training of the trainee cardiothoracic surgeon of today measures up to the challenges of contemporary WTI, or perhaps we should return to Hippocrates and consider "He who desires to practice surgery must go to war."

Figure 1



Figure 1: Japanese character for "Doctor". The three sided rectangle represents the chest and the reverse 'Y' with horizontal lines represents an arrow. (Arrow in the chest).



New Impact Factors

The Editor-in-Chiefs of the European Journal of Cardio-Thoracic Surgery (EJCTS) and Interactive Cardiovascular Thoracic Surgery (ICVTS) are pleased to announce improved impact factors (IF) and rankings for both journals for 2016. EJCTS increased to an IF of 3.759 and ICVTS to 1.857.

The recently released figures confirmed EJCTS achieved an increase of 0.956 from 2015 and substantial increases in the rankings; from 50th to 40th in Cardiac and Cardiovascular Systems, from 24th to 15th in Respiratory Systems and a further increase from 43rd to 24th in Surgery. The results substantiate the excellent work of the editorial teams over the past 12 months and the high calibre of content provided by both publications and their contributors.

STS/EACTS Latin America Cardiovascular Surgery Conference

September 21-22, 2017
Hilton Cartagena | Cartagena, Colombia



The Society of Thoracic Surgeons



EACTS



Save the Date!



The EACTS and the Society of Thoracic Surgeons (STS), have joined together to organise the

very first STS/EACTS Latin America Cardiovascular Surgery Conference, which will be held on **21-22 September 2017, in Cartagena, Colombia**. In this interview, EACTS International Cooperation Committee Chair, José L. Pomar, tells us more about this great initiative.

José, the EACTS and STS have joined forces to organise the Cardiovascular Surgery Conference in Latin America. Could you tell us where the idea originated and what the purpose of the event is?

As you know, for many years at the Annual Meeting of the EACTS, one of the personal goals has been to attract and share experiences with our Latin-American colleagues. In fact, at several of the recent meetings, we have had specific sessions devoted to this group of surgeons. The aim, therefore, was to create a programme in collaboration with some of the Latin-American surgeons, which would be both interesting and representative of this collective, and provide a forum where they could express their concerns and have open discussion.

It was established that more than 400 surgeons from this part of the world were attending our Annual Meeting on a yearly basis, and in conversations with our American friends, it became clear that it is becoming increasingly difficult for many Latin-American surgeons to attend the EACTS or STS meetings on a larger scale. Furthermore, new regulations surrounding sponsorship are set to make this even more challenging. One option suggested to solve this problem, was to take the meetings to South America, where some of the most relevant surgeons from the USA and Europe could share experiences with a far greater number of their Latin-American colleagues. This is the reason the coming meeting in Colombia was planned.



The STS/EACTS Latin America Cardiovascular Surgery Conference
21-22 September 2017, Cartagena, Colombia

I know you are working on the programme as we speak. Are you able to tell us a bit more about it? Who are the speakers? Everybody would like to know if you will be there of course! And are you collaborating with local surgeons?

The main goal is to better understand each other's needs and to share our expertise, which may be different, not due to a different level of knowledge, but due to a different type of patient and prevalence of certain pathologies. Some of the speakers have huge experience in new modalities of treatment, and will openly discuss the outcomes achieved and expected in the future. Therefore, a face-to-face meeting, with the possibility of organising parallel conversations on topics such as training programmes and the eventual exchange of trainees or young surgeons, will be of paramount importance. In addition, video sessions demonstrating the most recent techniques, from open surgery to transcatheter procedures, as well as lectures on the most up-to-date and interesting topics of the moment, will come together to form a very appealing programme. The programme is being slowly elaborated through constant contact between North and Latin-American surgeons, as well as some EACTS members, including Secretary General Pieter Kappetein, EACTS President Miguel Sousa-Uva, and myself.

That sounds like a very attractive format! Are there also social activities planned?

During the next American Association for Thoracic Surgery (AATS) Centennial, which will be held in Boston (MA, USA) in a couple of days' time, we are planning to all sit down together to

finalise the programme and all the social activities, which will take place in the beautiful surroundings Cartagena de Indias, Colombia.

This is a great initiative from the STS and EACTS. Can we expect more of these initiatives in the future?

As mentioned previously, this is the first such meeting and I am fully convinced it will be the first stone for a very fruitful and important collaboration between scientific societies and colleagues in the field of cardiovascular medicine in which to share knowledge and technical experience in a very fraternal way.

I think we have covered all the aspects of this exciting event. Maybe you would like to take this opportunity to personally invite your Latin-American colleagues to attend the meeting. You may do it in Spanish if you wish!

Personalmente me sentiría satisfecho si en esta primera edición entre la STS-EACTS y el colectivo de cirujanos cardiovasculares latinoamericanos además de realzar las inquietudes propias de cada uno, ponemos las bases para una política de acercamiento en los programas de formación de nuestros residentes y permitimos a éstos y a todos los jóvenes cirujanos un intercambio más sencillo y fructífero a nivel global. Dudo que alguien pueda olvidar las vivencias obtenidas cuando se encuentra en un centro de un país diferente y con una mentalidad alejada de la propia. Siempre es enriquecedor y creo cualquier esfuerzo en esta dirección que aumente los lazos entre todos nosotros es claramente imprescindible.

EACTS Academy Courses

Developing skills at the highest level

Hands on during Fundamentals in Cardiac Surgery part 1 in February, Introduction to Aortic Surgery in March, and Thoracic Surgery part 1 in March.



16 August 2017

EACTS Training in Research Session during the SATS Annual Meeting, Helsinki



Date/duration:
16 August 2017
Location:
Helsinki, Finland
Course Director:
Stuart J. Head

The lectures will include various topics, such as power calculations, multivariate analysis and propensity scoring, but also how to write abstracts and tips and tricks to get a manuscript accepted for publication. The speakers will include professors from the Scandinavian countries and also surgeons and scientists connected to the EACTS that have much experience with similar courses held at EACTS meetings. For more information on the programme and registration please visit the SATS website: www.satsnordic.com

During the Annual Meeting of the Scandinavian Association of Thoracic Surgery (SATS) a special symposium on Medical Statistics and Scientific Writing will be organised. This symposium is mainly aimed at young researchers and residents in cardiothoracic surgery.

7-8 October 2017

EACTS Translational and Basic Science Course, Vienna

Date/duration:
7-8 October 2017

Location:

Austria Center Vienna

Course Directors:

Dr Jolanda Kluin and Jan Ankersmit

This year the EACTS will be organising a new course at its Annual Meeting, entitled Translational and Basic Science, which will take place from 7-8 October 2017, at the Austria Center Vienna. Active cardiac and thoracic surgeons, **Dr Jolanda Kluin** (*University Medical Center Utrecht, the Netherlands*) and **Jan Ankersmit** (*Medical University of Vienna, Austria*) have contacted multiple experts in the field and have compiled a programme incorporating multiple layers of cardiac and thoracic research, with highlights including:

- **The theory and reality of university based enquiry** – two chief surgeons will reflect on the institutionalised pre-requisites in a cardiac and thoracic surgery department. A further presentation will outline how to generate research funding through a Public-Private Partnership (PPP).
- **The role of alpha-Gal immune response in recipients of bio-prosthesis.** In the same session we will learn about alternative sources of Gal deficient valve tissue.

- **The building of translational research within thoracic departments** will be described by mid-career surgeons: the 'tissue is the issue' will be their main message.
- **Cardiac reparative medicine** will be another focus of the programme. Experimental data will be compared with the actual patient outcome of stem cell therapy, including the current paradigm shift to paracrine-based explanations.
- In order to understand the **regulatory aspects of innovation** expert speakers have been invited to present who, in their daily practice, work with novel products on their journey to market authorization.
- Successful human clinical trials, which have passed ethical and regulatory hurdles, will be presented.
- To conclude, a successful science journalist has been invited to show us how to communicate science effectively to the lay public.

This year's EACTS initiative will present a kaleidoscope of currently accepted translational and basic science to surgeon scientists – we look forward to seeing you in Vienna later this year.

Registration is available via the Annual Meeting website: www.eacts.org/educational-events/eacts-annual-meeting/registration

Raising Standards through Education and Training



Minimally Invasive Techniques in Adult Cardiac Surgery

Course Directors: P Suwalski, Warsaw;
V Falk, Berlin and P Sardari Nia, Maastricht

20-22 June
 Warsaw, Poland



Focused on technical aspects of different minimally invasive procedures, the course is designed to provide the participants with a platform and a basis for starting the same programme at their own institute. To emphasize the success of the teamwork approach, cardiologists, perfusionists and anaesthesiologists will contribute through keynote presentations, live-in-a-box videos and live surgical case transmissions in order to demonstrate the technical aspects of the new procedures.

Delegates will have the opportunity to practice their minimally invasive techniques and skills using a wide range of technologies and equipment under the expert guidance of our faculty and Industry partners.

Refer to the Academy website for further details regarding programme, faculty and to register: www.eacts.org/educational-events/programme/mitacs2017

SAVE THE DATES! Do not miss out on these exciting opportunities in 2017! Courses will be held at EACTS House in Windsor, UK, unless indicated.

2017 COURSES

Endoscopic Port-Access Mitral Valve Repair Drylab Training	7-8 September, Maastricht, The Netherlands
STS/EACTS Latin America Cardiovascular Surgery Conference	21-22 September, Cartagena, Colombia
EACTS/ESVS Endovascular Skills Course	21-22 October, Hamburg, Germany
Fundamentals in Cardiac Surgery: Part III	23-27 October
Congenital Heart Disease	14-17 November
Fundamentals of Aortic Valve Repair	16-17 November, Homburg, Germany
Thoracic Surgery: Part III	23-25 November
Professional Leadership Workshop	27-28 November
12th European Mechanical Circulatory Support Summit (EUMS)	29 November-2 December, Bad Oeynhausen, Germany
Regenerative Medicine: Taking the Science to the Patient	30 November-1 December, Vienna, Austria
Endoscopic Port-Access Mitral Valve Repair Drylab Training	14-15 December, Maastricht, The Netherlands

All courses to take place at EACTS House in Windsor, UK, unless stated otherwise.

Post events report

Master class on aortic valve repair 22-24 March 2017



This year the EACTS was pleased to introduce a new course into its 2017 programme, entitled 'Master class on aortic valve repair: a step-by-step approach'.

Offering in-depth training on aortic valve repair (AVR), this hugely successful two-and-a-half-day course presented a step-by-step approach in AVR, covering all aspects from patient selection to echo valve analysis and technical standardisation for a reproducible repair according to each type of valve and aorta phenotype.

"In total, 199 participants from 40 countries attended, many of who were delighted to be able to discuss their own cases with the internationally renowned faculty."

The course, held at the Institute Mutualiste Montsouris, in Paris, France, from 22–24 March, featured live surgical cases, offering a fascinating overview of the procedure, combined with short video

sessions illustrating specific lesions related to the type of case shown. In total, 199 participants from 40 countries attended, many of who were delighted to be able to discuss their own cases with the internationally renowned faculty. The highly interactive programme concluded with a wet lab, bringing together theoretical knowledge with a practical application on anatomical human hearts.

For more information about the upcoming 2017 programme or to register, visit www.eacts.orgacademy/2017-programme



Video-Assisted Thoracoscopic Surgery (VATS) 18-19 May 2017



If you are interested in attending a similar course in future, please register your interest by emailing registration@eacts.co.uk

The EACTS Thoracic Disease Domain announced a new structure for its training programme in 2017 offering a comprehensive level of teaching across the specialty over four Academy courses.

A highlight of the programme was the specialist 2-day Video-Assisted Thoracoscopic Surgery (VATS) Skills course held at the Medizin im Grünen facility just outside Berlin, Germany, a medical centre of excellence, where a limited number of delegates received intensive simulator learning and training in different patient simulations in an extremely modern operative environment.

We were absolutely delighted to be able to offer this course, the first of what we hope will be many such ventures.

The EACTS digital Portfolio Management System: keep track of your residency training programme

Simple to use and free for members!



Rianne Kalkman

Administrative Director EACTS, Erasmus Medical Center, Rotterdam, The Netherlands

Edris AF Mahtab, MD

Erasmus Medical Center, Rotterdam, The Netherlands

Competency-based education and training in cardiothoracic surgery is gaining momentum worldwide. Today, cardiothoracic surgery training programmes no longer focus purely on the acquisition of medical knowledge, but also on surgical skills, communication and attitude. Furthermore, it is recognised that there is a need for these skills, both surgical and non-surgical, to be evaluated systematically and registered for each individual resident, to assess their level of competency and follow their progression. This means that residents now not only need to record their proceedings during their training period, but also keep track of professional evaluation moments as they progress through their career, to provide a clear picture of their continued training and development.

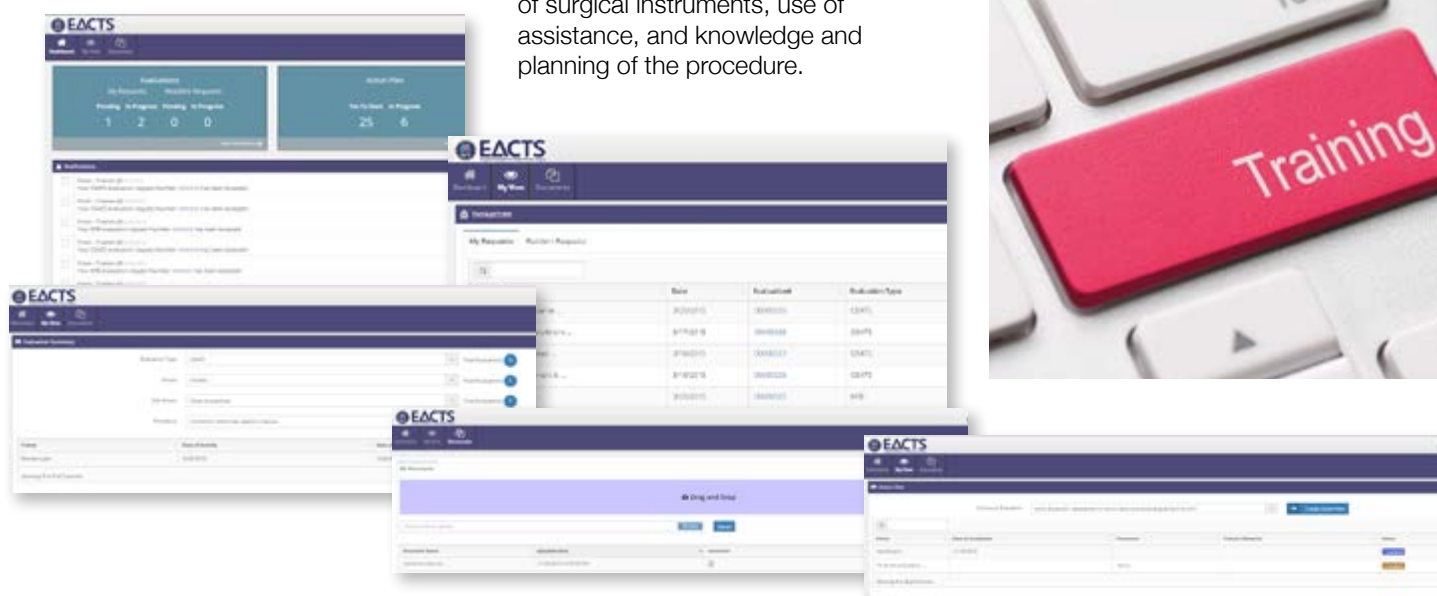
To avoid a big pile of paperwork, the EACTS has developed an online digital Portfolio Management System (PMS), which will soon be available to help you keep track of all your proceedings and professional evaluation moments in one place. The system is simple to use and free for EACTS members. You will be able to log in to the system from anywhere, on your PC, smart phone or tablet, which means you can easily access and add to your digital portfolio while travelling around during your residency. You can sit down with your supervisor in training and evaluate an operation, a clinical situation, an operative report, a presentation, a scientific manuscript, or anything else you would like to evaluate.

Surgical skills can be tracked by evaluations through the standardised method of **Objective Structural Assessments of Technical Skills (OSATS)**. During an OSATS evaluation, different surgical skills demonstrated during an operation (or part of it) can be evaluated. Among the evaluated skills are tissue handling, timing and movement, handling and knowledge of surgical instruments, use of assistance, and knowledge and planning of the procedure.

Another useful instrument is the **Short Situational Feedback (SSF)**, a scoring system to score, compare and evaluate the non-technical skills of the trainee during the training period. All seven CanMeds competencies (medical expert, communicator, collaborator, scholar, health advocate, manager and professional) can be evaluated in detail.

When will the PMS be available and how can I get it?

The digital PMS will be available from mid-2017 at the EACTS website. Registration is easy and free. If you and/or your head of training are interested and would like more information, please contact the EACTS office by emailing us at portfolio@eacts.co.uk.



Stephanie Halksworth
QUIP Coordinator, EACTS,
Windsor, UK

Over the past year, the involvement in the EACTS Quality Improvement Programme (QUIP) has accelerated rapidly, expanding to more countries and recruiting more hospitals than ever before. Since January 2016, the number of cardiothoracic procedures in the QUIP Adult Cardiac Database has doubled: the database currently holds 70,382 procedures, from 44 centres across Europe. Read more to find out about the QUIP initiatives and latest developments.

The EACTS QUIP was established in 2012, to improve clinical outcomes for patients and to promote the integration of quality enhancing initiatives into daily clinical practice. The EACTS QUIP operates two databases with the aim of achieving this: the Adult Cardiac Database (ACD) and EUROMACS.

Launched in 2015, the EACTS QUIP ACD is a collaborative registry of cardiac surgical data. Cardiothoracic surgical units from 44 centres across 10 European countries, are currently contributing to the QUIP ACD, through which they can take advantage of the QUIP features and benchmarking tool. In just 2 years, 66 centres have signed the QUIP Charter, and are actively contributing, or in the process of data mapping to enable them to contribute, to the QUIP ACD.

All the participating centres, with data in the registry, can benefit from the ACD benchmarking tool using individual login details provided by the University Hospitals Birmingham (UHB; UK) team. The access is given once the centre starts contributing to the database.

We have also developed a demo version of the benchmarking tool for potential participants to experience and explore the different features that will be available to them. This gives them an opportunity to preview these features and the different possibilities available before they sign up and agree to contribute data.

“The QUIP Adult Cardiac Database currently holds **70,382 procedures from **44** centres across Europe”**

The QUIP ACD has several useful tools and allows hospitals to compare anonymised data from surgical procedures on an international scale. The database's benchmarking tool enables surgeons to draw comparable data analyses with other hospitals completely anonymously. In time, as the database is developed further, contributing hospitals will receive standard, individualised reports for their centre, and using this data, will have the opportunity to carry out studies and research. Furthermore, the clinical support tool feature will enable hospitals to draw statistics for a specified criterion, helping to provide an understanding of the risks in a wider population. Figure 1 illustrates the volume of procedures, per procedure group, in the QUIP ACD in 2016 (1a) and currently in 2017 (1b); **this has doubled since January 2016.**

Category	Number of Publications
1452	1452
3308	3308
1041	1041
871	871
7168	7168
3623	3623
5736	5736
802	802

Figure 1b
2017

Disease	Number of Cases
COVID-19	22,788
Influenza	8,788
COVID-19	1,623
COVID-19	1,521
COVID-19	17,888
COVID-19	8,881
COVID-19	9,552
COVID-19	1,542

Hina Waheed, our QUIP Statistical Intelligence Analyst at the UHB, can provide you with access to our demo version giving you the chance to try out the tool and explore its numerous features. If you would like this opportunity, please email Hina at hina.waheed@uhb.nhs.uk

Whether you have accessed the QUIP ACD Demo tool or your centre is contributing to the real tool, we would like to hear your feedback.

Please take our QUIP Survey here:
<https://eacts.typeform.com/to/UPfThS>

Moving forward: The new QUIP Task Force

The EACTS has established the first QUIP Database Task Force, who met earlier in April this year, to further develop all aspects of the QUIP's database projects. The QUIP Database Task Force is formed of 11 members, each with experience and a strong interest in database and quality improvement initiatives.

The QUIP ACD is now becoming a powerful tool, that will grow in benefit as it grows in data. The more data contributed, the more hospitals will benefit from the database and the reports it provides. For more information or to join the QUIP ACD, please visit the QUIP website at www.eacts.org/quip or contact the QUIP team at QUIP@eacts.co.uk

Behind the scenes

Meet the team behind the EACTS Quality Improvement Programme

The Quality Improvement Programme (QUIP) team, based at EACTS House in Windsor, UK, and the University Hospitals Birmingham (UHB), UK, work together to promote the aims of the QUIP: to improve clinical outcomes for patients and integrate quality improvement initiatives. The QUIP team at UHB use their technical expertise to ensure the smooth running of the Adult Cardiac Database (ACD), and work closely with contributing centres to ensure that their data is successfully implemented in the database. The project development team at EACTS House lead the recruitment of centres to join the ACD, facilitating communication and leading the strategy to advance the QUIP's aims.



Domenico Pagano
EACTS QUIP Chair,
University Hospitals
Birmingham, UK

Domenico is the EACTS QUIP Chair and Director of the Quality and Outcomes Research Unit (QuORU) at UHB, UK. Domenico provides clinical leadership, builds collaborative relationships with contributing centres and national societies, and leads the strategy developments of the EACTS QUIP project at all levels.



Giacomo Bortolussi
Fellow, University Hospitals
Birmingham, UK

Giacomo is a Cardiac Surgery Fellow currently working at UHB, with expertise in large databases and datasets management. Giacomo's role within the QUIP is to provide clinical support for the adult benchmarking project.



Theo de By
QUIP Project Manager,
EACTS, Windsor, UK

Theo is the first contact for all EACTS members who wish to join QUIP, and actively recruits those who are potentially interested to participate in the benchmarking tool. He informs the members and representatives of their organisations about the various aspects of the engagement process, the QUIP Charter, and the relationship between the EACTS and UHB, UK. Theo interacts with Hina and Simon when registered participants are ready to commence submitting their data into the QUIP ACD.



Hina Waheed
Statistical Intelligence
Analyst, University Hospitals
Birmingham, UK

As part of the QUIP team at UHB, Hina takes the lead role in maintaining the ACD and the benchmarking tool. She is responsible for providing technical assistance and engages with new and existing centres from data mapping stage until their data is in the database. She is the first point of contact for the participating centres and assists users with accessing the benchmarking tool. As the project develops further, she will also be responsible for providing statistical insight.



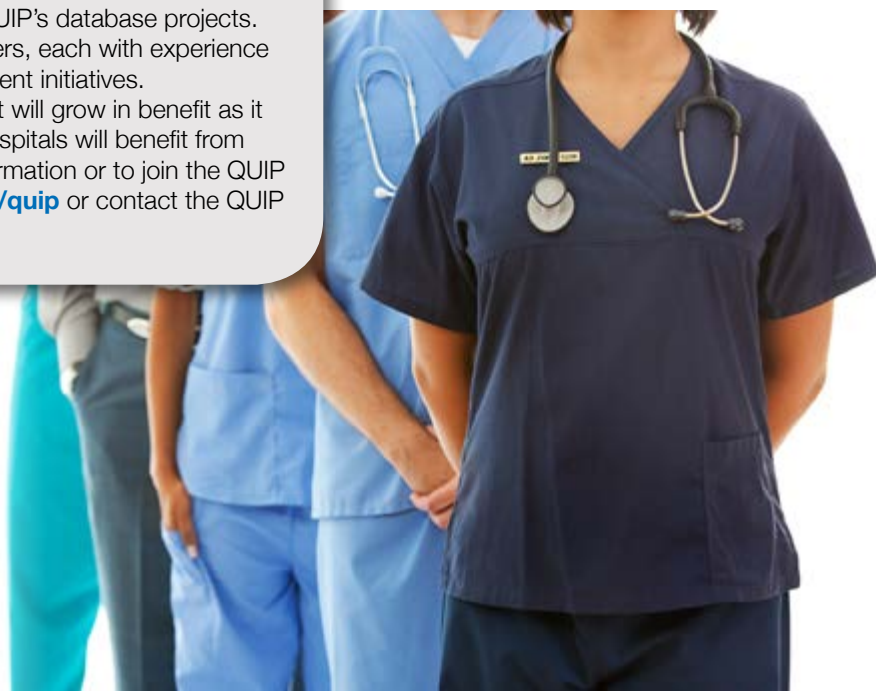
Simon Baldwin
Information Analyst,
University Hospitals
Birmingham, UK

Simon's main role in the QUIP comprises of ensuring the smooth day-to-day running of the ACD tool, including web development and the analytical functions of the tool, such as the calculation of completion rates and EuroSCORE. He is also responsible for expanding the QUIP web-based tools, under clinical direction; most recently, this has resulted in the development of an ACD demo tool. When Simon is not working on the tool, he works on data quality alongside the clinical and statistical leads to ensure that data is interpreted and represented as accurately as possible.



Stephanie Halksworth
QUIP Coordinator,
EACTS, Windsor, UK

As the QUIP Coordinator at EACTS, Stephanie coordinates the logistics for the QUIP project. Through implementing shared platforms, Stephanie's role is to enable the different domains of the QUIP project to work in collaboration, ensuring cooperation between recruitment, and the QUIP teams at UHB and EACTS. Stephanie is leading the QUIP marketing strategy and manages the QUIP Task Force.



A SWEDEHEART to heart with QUIP

SWEDEHEART Connects to the EACTS Quality Improvement Programme Adult Cardiac Database

Örjan Friberg

Örebro University Hospital, Sweden

Theo de By

*QUIP Project Manager, EACTS,
Windsor, UK*

Recently, it was decided that the Swedish Heart Registry (known as SWEDEHEART), will provide data to the EACTS international Quality Improvement Programme (QUIP) Adult Cardiac Database (ACD). In this article, we introduce you to a unique national registry that has covered all procedures in Sweden since 1992. The contribution of Swedish data is considered to be an extremely valuable contribution to the EACTS QUIP ACD.

The purpose of SWEDEHEART

The primary purpose of SWEDEHEART is to support development of evidence-based therapy in acute and chronic coronary artery disease, in catheter-based or surgical valve intervention and genetic heart diseases, by providing continuous information on patient care needs, treatments and treatment outcomes. The aim of SWEDEHEART is also to register changes in the quality and content of patient care over time within a hospital and compared with other hospitals, to contribute to risk prediction tools and decision support, and to support continuous improvement efforts in all participating units.

SWEDEHEART is intended to form the basis for research on coronary artery disease, valve intervention and genetic heart disease. The long-term aim is to contribute to reduced mortality and morbidity in patients, and to improve the cost-effectiveness of patient care.



In addition, SWEDEHEART is a procedure-related and surgery-related registry, for the purpose of collecting relevant information concerning severity of disease, patients' risk profile, medical and medical-device treatment, outcomes, and any complications from the time of intervention for all procedures and surgical interventions performed. Comparisons can be made between hospitals and between regions. The individual operator can also compare his or her results with an average for other operators in the hospital department or in the whole of Sweden. New medical devices can be quickly evaluated, as can different treatment strategies, to provide both short- and long-term perspectives. In the registry, information

is collected from all hospitals that care for patients with acute coronary artery disease, and all patients who undergo coronary angiography, catheter-based intervention, or heart surgery, and reflects an unselected population. The possibility of merging the SWEDEHEART database with other international registries, such as the QUIP ACD, offers complete follow-up in regards to MI, death and other diseases. In addition, the registry offers the possibility of randomised registry studies of unselected patients. The work of SWEDEHEART therefore represents an important foundation for research into heart disease and has resulted in several publications in highly regarded medical journals. Consequently this has influenced the care of heart disease around the world.

EACTS contact details

Managing Editor: **Rianne Kalkman**

EACTS Executive Director: **Kathy McGree**

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SL4 1EU. United Kingdom**

Data submission methods

Data are either entered directly into the registry online via the internet or exported into the registry from local databases at some of the centres. Completeness of individual variables is high.

Mortality data are derived from the Swedish National Population Registry and are therefore considered 100% complete and accurate. A patient may be operated on more than once, however, mortality figures are presented per individual patient, not per operation. All other data except mortality are shown as reported by the individual centres. Previously no external adjudication of the reported data from each centre has been conducted. However, in 2016 a programme for regular external monitoring and adjudication of registry data with site visits at each centre was initiated.

Results and comments

Based on the national statistics of SWEDEHEART, the Swedish National Board of Health and Welfare have recently highlighted the improper differences in coronary artery bypass graft (CABG) volumes, between different regions and counties in Sweden.

In 2015, the Board released its National Recommendations on Cardiac Care pinpointing the improper differences regarding indications for CABG among their central recommendations. Nevertheless, during 2016 no clear trend towards a reduction in the contrasts between counties can be detected in registry data. Regarding outcomes, mortality, or postoperative complications, the differences between the centres are mostly small. The differences in mortality generally vary from year to year in an apparently random way. Adjustment for case-mix with EuroSCORE II has deliberately not been carried out. There are unexplained differences in some of the variables between the centres and since neither EuroSCORE II variables nor reported complications have been previously externally validated and/or adjudicated, risk-adjusted data cannot be considered valid. Too much emphasis on the ranking of centres, could encourage a bias of definitions when reporting data on some subjective risk-variables or outcomes. It also impedes a sincere and honest cooperation and benchmarking between the centres, which is the most important thing, not only for the registry but for the quality of cardiac surgery across the country.

Advantages of connecting SWEDEHEART to the QUIP ACD

From a national point of view, the advantages for individual hospitals in Sweden is threefold:

1. The QUIP offers the ability to benchmark local data on a supranational (European) level, which puts outcomes in a larger perspective.
2. The QUIP tool provides unique possibilities to generate, near real-time, statistics using multiple filters to focus on and benchmark specific data. Additionally, data from the benchmarking tool facilitate decision making with respect to individual patients.
3. As members of the EACTS, sharing local and national data with colleagues will enable improvements for the entire profession.

The number of European hospitals participating in the QUIP project is now at 66, and increasing. The high quality of data from SWEDEHEART will further add to the power of the QUIP ACD.

Data collection and data quality

Variables	Gothenburg (%)	Karlskrona (%)	Linköping (%)	Lund (%)	Stockholm (%)	Umeå (%)	Uppsala (%)	Örebro (%)
Clinical demographics	99.91	99.61	99.86	63.91	100.00	100.00	99.53	100.00
EuroSCORE II	100.00	100.00	100.00	100.00	100.00	100.00	99.69	100.00
Procedure code*	100.00	97.27	100.00	100.00	100.00	100.00	100.00	99.75
Diagnosis code*	100.00	99.22	100.00	98.56	100.00	100.00	100.00	100.00
Complications	100.00	100.00	100.00	30.06	100.00	99.55	99.52	100.00
Lab values**	99.25	99.61	99.29	64.00	99.89	99.11	96.80	98.77
Pharmaceutical treatment	99.81	100.00	100.00	100.00	100.00	98.81	99.84	98.77
Date of discharge***	99.82	100.00	100.00	95.50	100.00	99.85	99.84	98.77

* A minimum of one code (according to ICD10).

** Lab values here include preoperative haemoglobin, pre- and postoperative creatinine. Only in patients discharged alive.

*** Percentage of patients discharged alive.

The registry covers all centres that are performing or have been performing cardiac surgery in Sweden since 1992 resulting in 100% coverage regarding the number of adult heart surgery procedures in 2015 (Table 1). The number of cardiac surgery interventions averages at +6000 per year since 2005.

Table 1. Completeness of selected key variables, per centre, 2015.

As shown, the completeness of data is exceptionally high, with the exception of postoperative complications from Lund. This single lower figure is due to a mismatch between the local quality registry in Lund and the SWEDEHEART registry regarding some minor complications, which causes an incomplete data export.

Spotlight on Spain



Dr Rafael Sádaba

Hospital of Navarra, Spain

Carlos Velasco

*Complejo Hospitalario Universitario
of A Coruña*

Spain has excelled this year in their contribution to the EACTS Quality Improvement Programme (QUIP). Spanish centres have joined forces, with the cooperation of the SECTCV (Sociedad Española de Cirugía Torácica-Cardiovascular), and are contributing data to the EACTS QUIP Adult Cardiac Database (ACD). This is known locally as QUIP Spain.

“The feedback has been very positive... I see QUIP Spain progressing quickly to become the ‘National registry’”

All contributing hospitals send their cardiac surgical dataset to the Spanish QUIP Registry, and from there, individual hospital data are forwarded to the EACTS QUIP ACD in Birmingham, UK. In January 2016, the Spanish QUIP Registry, located at the Hospital University A Coruña, Spain, was established and a team of surgeons and a data manager oversee the process. The contributing units can now make use of the EACTS QUIP resources for benchmarking purposes and research on an international scale.

This is a leading example of centres cooperating on a national basis and contributing to a supranational database, with consistent and accurate data. An annual meeting in Madrid, organised by the SECTCV for Spanish cardiac surgical units, was held in January of this year to review the Spanish QUIP Registry.

Rafael Sádaba and **Carlos Velasco** play a key role in QUIP Spain, and have agreed to a special EACTS interview to shed light on Spain's experience in the last year since joining QUIP, and unveil future plans of turning the QUIP into a national registry for Spain...

What is the EACTS QUIP ACD and how did Spain get involved?

Rafa: In Spain, the EACTS QUIP database or QUIP Spain as it is known locally, has been proposed to become the Spanish national registry. It will take the place of the traditional national registry, which has been in operation for over 30 years. The involvement was by serendipity. The Spanish Society of Thoracic-Cardiovascular Surgery decided to develop a patient-based registry some years ago and it was working towards creating it. It was in this context that it was suggested, instead of developing a whole new database, we could take advantage of joining the European registry, which had recently been designed and developed by the Quality and Outcomes Research Unit (QuORU) in Birmingham, UK, a centre of excellence in these matters.

What is your current role in the QUIP ACD?

Carlos: In January 2016, the SECTCV started QUIP Spain with the aim of developing a national database fully compatible and containing all the variables of the EACTS QUIP ACD. All the hospitals in Spain performing cardiac surgery were invited to join to this project. This national database works as an intermediate step to collect, validate and analyse the data before it is sent to the EACTS QUIP database. My task, working along with Rafa Sádaba, Jose Joaquin Cuenca Castillo (Past-President of the SECTCV), Pedro Lima and Cristina Quiñones (data manager of the QUIP project in Spain), has been to develop this national database, defining the recommended variables to include and to give assistance to all the cardiac surgery departments in Spain in the task of sending their data to QUIP Spain.

Since the launch of the SECTCV contribution to the QUIP ACD in January 2016, how many hospitals have signed up?

Carlos: The EACTS QUIP ACD has been very well accepted by the different cardiac surgery departments. So far **27 hospitals** have signed up to QUIP Spain and to date 19 departments have already sent their data to the EACTS QUIP ACD, representing many of the largest cardiac surgery departments in Spain. The remaining hospitals that have not yet signed up are expected to become part of the project within the next year.

What benefits are there to joining the QUIP ACD?

Rafa: I see three significant benefits:

1. Allows for benchmarking against other European centres, permitting hospitals to identify areas of strength and weakness.
2. Allows those sending data to the QUIP, to use the database to carry out studies and research.
3. Access to the clinical support tool, which allows you to find statistics for a population matching a specific criteria.

Carlos: The QUIP ACD gives the cardiac departments the opportunity of benchmarking their outcomes with other hospitals in Europe, identify areas of improvement and share data among different groups.



“I must say, both support teams in Birmingham and at the Hospital A Coruña have done a fantastic job.”

Were there any difficulties at first matching the centres' database to the QUIP ACD?

Rafa: There were indeed some difficulties. For starters, there was the language barrier (Spanish vs English). Different centres had different local databases, and often, items in those databases were not matched against QUIP, or the variables and outcomes were measured with different metrics.

How were they overcome?

Rafa: We liaised closely with the support team in Birmingham for the translation of all the items in the QUIP dataset into Spanish. This dataset was then adopted by the centres contributing to QUIP Spain in close collaboration with the QUIP Spain team at A Coruña. I must say that both support teams in Birmingham and A Coruña have done a fantastic job.

The QUIP ACD is more than just a registry – it has beneficial features, including a benchmarking tool, data analysis, and a clinical support tool.

How much do centres use the QUIP tools?

Rafa: I think all that the QUIP ACD offers is the great unknown in the registry. In a recent meeting in Madrid to discuss

cardiac surgery departments to achieve best clinical practice, and has adopted the QUIP project as its own, leading the developing of the new national database (QUIP Spain) on the basis of the EACTS QUIP project. This has facilitated the access to the QUIP for hospitals across Spain.

“All hospitals agreed on the importance of the information obtained with the QUIP Tool and the simplicity of its use”

An annual meeting organised by the SECTCV in Madrid, Spain, took place with the Spanish surgical units. What was the overall feedback regarding the QUIP tool?

Carlos: At the SECTCV annual meeting we received very good feedback from the hospitals sending their data to the QUIP ACD. All the hospitals agreed on the importance of the information obtained with the QUIP tool and the simplicity of its use. Moreover, the delegates of the registry from each department emphasised the good assistance and quick response by the QUIP team to any problems or doubts they experienced.

Rafa: The feedback has been very positive. A large proportion of centres have signed the agreement to join the QUIP and are preparing their databases to submit data in the near future. One of the difficulties identified was the problems that some IT departments were finding to introduce a new database in the centre.

How do you see the progression of QUIP in Spain's future?

Rafa: I see QUIP Spain progressing quickly over the next 2 years to becoming the 'national registry'. For this to happen, all centres must get their databases in line with the QUIP dataset.

Carlos: For sure the remaining hospitals that have still not joined the QUIP project will join in the coming months. The quick and progressive acceptance of the QUIP project in Spain suggests that this project will become the national database within the next 2 years.

What advice would you give to centres in other countries thinking about joining the QUIP?

Carlos: The QUIP ACD is a very effective instrument for benchmarking our outcomes and is much more powerful the more hospitals join the project, so we encourage all the cardiac surgery departments concerned with the importance of achieving best clinical practice and the best outcomes to join to the QUIP project.

Joining this project is really easy thanks to the invaluable help of the QUIP team who guide you through the process. Joining the QUIP ACD as a country has the additional advantage of developing a national database available for further research.

The main problem we have found joining the QUIP has been to adapt our variables to the QUIP variables, since the categories were not exactly the same. Nevertheless, only minor changes were needed since the mandatory and highly recommended variables did not differ much for the common categories used for estimating risks with the most used risk scores, and thus these variables and categories are common within the current databases.

Rafa: Joining the QUIP, either as an individual centre or as a nation, has many advantages as already discussed. Adapting an existing database to the QUIP dataset can take time and effort in the beginning, but any problems may be easily overcome by liaising closely with the QUIP support team.



the QUIP, it was clear that the message had not got through and most centres had not used it enough. More effort is needed to spread the word of its capabilities and make it more user-friendly.

Spain has progressed enormously in the past year with the QUIP, contributing 19.47% of the data currently in the ACD.

“Joining the QUIP Project is really easy thanks to the invaluable help of the QUIP team”

Why, in your opinion, has QUIP taken off so well in Spain?

Carlos: The SECTCV has always been very concerned about the necessity of analysing the outcomes of the national



To join the EACTS QUIP,
please contact
QUIP@eacts.co.uk

EUROMACS Longitudinal analysis module: Kaplan Meier function

Theo de By

QUIP Project Manager, EACTS, Windsor, UK

Recently, a Kaplan-Meier module has been added to the EUROMACS Database. To enable the participating hospitals to analyse their data they can make a data download by pressing the “export my data” button after login. This will usually take 2-3 minutes. Traditionally, participants could use these downloaded data to import them in any statistical program. Now, a new green button “Kaplan-Meier Curves” has been added. This button gives you access to the module.

The Kaplan-Meier module has been



designed to let you create longitudinal analyses as both event-free or survival curves according to a set of calculation rules. The software will let you create a unique group of patients upon which the analysis will be based. You can then select a failure event and the software will then calculate and display a Kaplan-Meier table and curve. A manual, describing step by step how to operate the module can be downloaded by pressing the “documents” button.

The EUROMACS development roadmap includes the capacity to create and run multiple curves simultaneously so that for a given grouping variable, multiple Kaplan Meier curves can be created and compared.



Example screen showing how to select for what failure cause you want to make a longitudinal analysis.

Please note that the Longitudinal Analysis module currently displays best in the Google Chrome browser: the plan is to make the module fully cross-browser compatible in the next few months.

EUROMACS update

Dear Colleagues and friends...



Jan Gummert

Director, Clinic for Thoracic and Cardiovascular Surgery Heart and Diabetes Centre NRW, Bad Oeynhausen, Germany.

The year 2017 marks a new chapter for the EUROMACS Registry as it relocates to EACTS House in Windsor, UK. This follows the decision by members at the last EUMS meeting on 2 November 2016 that the existing EUROMACS Association had become obsolete. Since 2013, EUROMACS has functioned as a Committee of the EACTS and it will continue to do so. The members of the outgoing board of the EUROMACS Association will remain in place, and for the hospitals that provide the data, nothing will change as the EACTS takes over all obligations associated with the Registry.

On behalf of the EUROMACS Committee, I would like to express my firm gratitude to all those who set up the Association, with special thanks to Professor Hetzer, who remains our Honorary Chairman. Without his efforts, the Registry wouldn't have developed in the way it has during the past 5 years. The Committee is also grateful for the generous grant received from the Friede Springer Herzstiftung, which enabled the inception of the Association, covered the cost of creating the present database, and provided the funds necessary to develop the network of cooperating hospitals we have today. Within the EACTS, EUROMACS is embedded in the Quality Improvement Programme (QUIP) focusing on benchmarking of outcomes between hospitals. QUIP enables the provision of data to clinicians and researchers. In the near future, new software will enable the EUROMACS community to access statistics and state-of-the-art benchmarking tools.

To all members and clinicians who contribute to the EUROMACS Registry, I express my gratitude for your continuing commitment. Thanks to your efforts and dedication, several colleagues and scientists have been able to use data from the Registry to assist their studies, several of which have been published in the past 2 years. With the increasing number of participating hospitals (now more than 50) and with the application of data audits, a solid basis for scientific, as well as benchmarking, purposes has been created.

Looking to the future, I am convinced that the EUROMACS Registry, together with the increasing number of participants, will be able to grow and further develop its tools to carry out data analyses and to provide insight into the factors influencing the results of mechanical circulatory support.

With warm regards,
Jan.

The EUROMACS Registry, first lustrum accomplishments

After a period of programming and organisational structuring, the EUROMACS registry went 'live' in April 2012. Initially starting with 7 centres in 5 countries, the registry now has 52 signed agreements with contributing hospitals in 18 countries, while 10 additional institutions are in the process of joining. In several countries, such as France and Italy, the option for all hospitals implanting mechanical circulatory support (MCS) devices to join collectively is being discussed. During this period >3,300 implantations (including 178 in children) of long-term assist devices and >12,500 follow-up records have been registered. The first Annual Report was published in 2015,¹ the second report was submitted in February 2017.

Data for scientific research

From 2011 to 2017, data have been provided for the following studies:

1. Impact of atrial fibrillation on pump thrombosis and thromboembolic events in long-term left ventricular assist device therapy
2. Clinical and echocardiographical feature of right ventricular failure*
3. Infectious disease study mid-term MCS study
4. Mid-term mechanical circulatory support: comparison of single-centre data with the EUROMACS registry²
5. Isolated RVAD implantation study³
6. Gender differences in hemodynamics, adverse events and their association with survival in patients undergoing ventricular assist device implantation: insights from the EUROMACS registry*
7. International weaning study
8. Incidence of thrombo-embolic events⁴
9. Demography and outcome data of the Bern VAD-Program retrieved from the Euromacs registry⁵
10. Derivation and validation of a novel right heart failure risk score in patients receiving continuous flow left ventricular assist devices: analysis of the EUROMACS registry*
11. European results with biventricular support (Inselspital, Bern).

7 centres in 5 countries

ACCOMPLISHMENT

After a period of programming and organisational structuring, the EUROMACS registry went 'live' in April 2012. Initially starting with 7 centres in 5 countries



52 signed agreements in 18 countries

ACCOMPLISHMENT

The registry now has 52 signed agreements with contributing hospitals in 18 countries, while 10 additional institutions are in the process of joining



3,300 implantations and 12,500 records

ACCOMPLISHMENT

During this period >3,300 implantations (including 178 in children) of long-term assist devices and >12,500 follow-up records have been registered



Statistical tools in development

The EUROMACS database software enables every contributor to download the own base-line and follow-up data at any time. These downloads come in a spreadsheet and enable them to make their own statistics, e.g. by means of statistical software.

Recently, a tool has been developed that will enable EUROMACS participants to see unadjusted Kaplan–Meier survival curves of their chosen selection. This further amplifies the importance of having a complete dataset as missing data will have an impact on the analysis. Ventricular assist device (VAD) implantations are excluded from the Kaplan–Meier analysis if, within a period of 30 days after implantation, no follow-up has been entered.

IMACS Cooperation

At the end of 2013, EUROMACS and IMACS agreed to cooperate. While EUROMACS gathers data from those countries on the European continent, IMACS receives data on a global scale. Within this cooperation, EUROMACS provides anonymous data from its registry. This contribution, as well as the contribution of data from other regions, such as North America, Japan, South East Asia and Australia, has enabled the IMACS organisation to publish its first report in 2016.⁶

**Publications in preparation. The data collected in the registry is also available to members to aid them in policy making, and preparing non-clinical papers or presentations.*

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