5th International Fluid Academy Days November 26-28, 2015, Hilton Congress Centre, Antwerp, Belgium

Organising Committee

The International Fluid Academy Part of iMERIT vzw: International Medical Education and Research Initiative (ON: 0559836092) Dr Manu Malbrain Dr Niels Van Regenmortel Dr Dirk Himpe Prof Dr Philippe Jorens

Scientific Committee

Paul ELBERS, Amsterdam, The Netherlands Philippe JORENS, Antwerp, Belgium Xavier MONNET, Paris, France Willem STOCKMAN, Roeselare, Belgium

Website Management

OLD WEBSITE: Dr Tim Van den Wyngaert Webmaster e-mail: tim.van.den.wyngaert@skynet.be Website: www.fluid-academy.org NEW WEBSITE: Niels Luiten Webmaster e-mail: niels.luiten@interactie.org Website: www.fluidacademy.org

Contact

General e-mail: info@imerit.org Registrations e-mail: regsitrations@imerit.org

Follow the IFA via the Social Media

- Follow the International Fluid Academy on the social
- Youtube:
- http://www.youtube.com/user/TheFluidAcademy/feed Twitter: https://twitter.com/Fluid_Academy, @Fluid_Academy, #IFAD2015, #IFA5
- Facebook:
 - https://www.facebook.com/pages/International-Fluid-Academy/159692054116794 and https://www.facebook.com/hashtag/ifa5, #IFA5 and https://www.facebook.com/hashtag/ifad2015, #IFAD2015
- LinkedIn
 - http://www.linkedin.com/groups/International-Fluid-Academy-4083056 and https://www.linkedin.com/company/internationalfluid-academy
- SlideJar: http://fluid.slidejar.com/ Newsletter: sign-up via http://eepurl.com/DJQ65; latest newsletter available from: http://eepurl.com/bBKdSn and http://eepurl.com/bCgZaz
- Vimeo: https://vimeo.com/user34777304, watch all video presentations of 3rd iFAD:
- https://vimeopro.com/user34777304/ifad13 Post your comments on the IFAD Blog: http://www.fluidacademy.org/blog/

Faculty List 2015 – Final as on 15-11-15 Djillali ANNANE, Paris, France DJIIIali ANNANE, Paris, France
Karim ASEHNOUNE, Nantes, France
Pietro CAIRONI, Milan, Italy
Maurizio CECCONI, London, United Kingdom
Davide CHIUMELLO, Milan, Italy
Inneke DE LAET, Antwerp, Belgium
Rudi DE PAEP, Antwerp, Belgium Paul ELBERS, Amsterdam, The Netherlands
Luciano GATTINONI, Milano, Italy
Diederik GOMMERS, Rotterdam, The Netherlands
Robert HAHN, Linköping, Sweden
Dirk HIMPE, Antwerp, Belgium
Pieter-Jan HOFKENS, Antwerp, Belgium Can INCE, Amsterdam and Rotterdam, The Netherlands Alexandre JOOSTEN, Brussels, Belgium

Philippe JORENS, Antwerp, Belgium Daniel LICHTENSTEIN, Paris, France
Dileep LOBO, Nottingham, United Kingdom
Manu MALBRAIN, Antwerp, Belgium
Xavier MONNET, Paris, France
David MUCKART, Durban, South Africa
Monty MYTHEN, London, United Kingdom Azriel PEREL, Tel Aviv, Israel AZTIEI PEREL, 161 AVIV, ISTABI
Anders PERNER, Copenhagen, Denmark
Jan POELAERT, Brussels, Belgium
John PROWLE, London, United Kingdom
Daniel REUTER, Hamburg, Germany
Jeoffrey SCHOUTEN, Sint-Niklaas, Belgium
Michel SLAMA, Amiens, France Mike SMET, Antwerp, Belgium
Willem STOCKMAN, Roeselare, Belgium
Niels VAN REGENMORTEL, Antwerp, Belgium
Guy VERMEIREN, Antwerp, Belgium
Antoine VIEILLARD-BARON, Paris, France Jean-Louis VINCENT, Brussels, Belgium Adrian WONG, Oxford, United Kingdom

Faculty List Nursing Critical Care Quiz
Ingrid BAAR, Antwerp, Belgium
Stijn BLOT, Ghent, Belgium
Kurt BOEYKENS, Sint-Niklaas, Belgium
Erik DE VADDER, Antwerp, Belgium
Cindy LAFAIRE, Antwerp, Belgium
Rogier NIEUWENDIJK, Antwerp, Belgium
Baudewijn OOSTERLYNCK, Bruges, Belgium
Niels VAN REGENMORTEL, Antwerp, Belgium
Rick VFRHAGF. Antwerp. Belgium Rick VERHAGE, Antwerp, Belgium Mike Verschueren, Antwerp, Belgium

Meeting Venue

The Hilton Antwerp Hotel
Congress and Conference Centre Groenplaats 32 B-2000 Antwerp Belgium www.placeshilton.com/antwerp Fax: +32 3 / 204 12 12 Fax: +32 3 / 204 86 88 e-mail: antwerp.reservations@hilton.com Contact: Kelly Vermeiren Kelly.Vermeiren@Hilton.com Tel: +32 3 / 204 82 84 Level 3: Rooms Belle Epoque, Foyer, Lijn and Teun, Groenplaats Level 2: Business centre, Rooms Tiffany, Sancy and Floren-

Congress Secretariat

Intensieve Therapie Eenheid, ITE (B3) ZNA Stuivenberg Lange Beeldekensstraat 267 B-2060 Antwerp Belaium

Tel.: +32 3 / 217 70 92 Fax: +32 3 / 217 75 74 e-mail: info@imerit.org

Congress Organiser Sylvester Productions NV

Dijkstraat 44 B-3150 Wespelaar (Haacht) Belgium http://www.sylvesterproductions.be Tel. +32 16 / 61 80 80 Fax +32 16 / 61 80 88 e-mail: info@sylvesterproductions.be Contact: Mr. Andreas De Boever (andreas@sylvesterproductions.be)

Interactie Groep Horapark 9 6717 LZ Ede The Netherlands Tel. +33 318 693 501 http://www.interactie.org/ e-mail: info@interactiegroep.nl Contact: Mr. Niels Luiten (niels.luiten@interactie.org)

All participants and exhibitors must wear the official congress badges. These badges allow access to the scientific sessions, the exhibitions area, the lunches and coffee breaks as indicated in the program.

Lunch & Coffee

The lunches and coffee breaks - as indicated in the program are included in the registration fee.

Mobile phonesWe ask all participants to have the courtesy to switch off their mobile phones when they enter a meeting room.

TransportationFrom Central Railway Station: The Hilton hotel is easily accessible from the Central Railway Station, which is one of the main stations in Antwerp. Take subway number 9 or 15, direction Linkeroever, to Groenplaats, where the Hotel is located. By taxi the journey normally takes around 10

From Antwerp Airport: Exit the airport onto the Luchthavenlei. On entering Antwerp, turn right onto Vosstraat, left onto Diksmuidelaan, left onto Borsbeekbrug, right onto Binnen-singel (R10) and then left onto Plantin en Mortuslei. Continue along Van Eycklei (N184) then onto Maria Henriettalei (N184), Frankrijklei (N184), Bourlastraat and turn right at Leopoldplaats. Continue along Leopoldstraat, turn right at Leopolapiaats. Continue along Leopolastraat, turn right at Komedieplaats onto Huidevetterstraat at the end left to the Schoenmarkt and you will arrive in front of Groenplaats and the Hilton Antwerp hotel. By taxi the journey normally takes around 20 minutes. Bus (line 51,52 and 53) brings you to station Berchem, from there you can take tram line 8 to the Groenplaats. From Brussels Airport: Take the A201 and exit at junction 4 onto the Ro. Exit at junction E19 (direction Mechelen) and continue along the E19/A1. Exit at junction 5a (direction Brugge and Gent) onto the R1. When you reach Antwerp, exit at junction 5a Schelde, Hoboken and carry on to the Brusselstraat, then Bolivarplaats. Turn right on the Amerikalei, which changes to Britselei, take the first left to the Bourlastraat and turn right at Leopoldplaats. Continue along Leopoldstraat, turn right at Komedieplaats onto Huidevetterstraat at the end left to the Schoenmarkt and you will arrive in front of Groenplaats and the Hilton Antwerp hotel. By taxi the journey normally takes around 45 minutes. A brand new direct train connection between Brussels National Airport and the Antwerp Central Station brings you to and from the airport in just 30 minutes! A bus runs also at every hour between Zaventem Airport and Antwerp Central station

Parking

Parking Groenplaats is just next to the Hilton Hotel The hotel offers self-parking at 17.25€ per day, valet parking is not available.

Groenplaats - B - 2000 Antwerpen Tel. +32 3 / 232 30 42 Fax +32 3 / 234 24 30

Congress Hotel

Located in the heart of historic Belgium, the Hilton Antwerp hotel offers the most central location in vibrant Antwerp on the popular Groenplaats and is an ideal base to discover the beautiful and historic city. Combining old-world charm and stylish sophistication, the Hilton Antwerp hotel overlooks the city's historic town square and Belgium's finest architecture. Discover Antwerp's finest retailers and the largest diamond trading center in the world with ease from the Hilton Antwerp hotel. Enjoy Belgian cuisine at the hotel's bistro-style Terrace Café and experience spectacular views of the Cathedral of Our Lady. Host an event in the stunning Belle Epoque Ballroom, the largest hotel ballroom in the whole of Belgium or discuss business in one of the 13 meeting rooms. After exploring the stunning city of Antwerp, relax with a refreshing cocktail or a malt whisky at the nautical themed Maritime

Bar or indulge in high tea served in the refined Lobby Lounge. Rejuvenate in the fitness center or retire to a comfortable guest room with 32-inch LCD TVs, WiFi and bathrooms with separate bath and shower. Upgrade to an Executive Room to enjoy access to the Executive Lounge with a private outdoor terrace overlooking the historic city. The Hilton Antwerp hotel also has a variety of stylish and spacious suites available, with separate dining and seating areas.

Hotel highlights: Located on Groenplaats – historic town square in Antwerp city center. Only 20 minutes from Antwerp International Airport (Deurne). Fitness center. Brasserie-style restaurant, Lobby Lounge, and Maritime Bar. Belle Epoque Ballroom, 13 meeting rooms and business center

Endorsing societies

- AARL: Association of Anaesthesiologists and Reanimatologists of Latvia (http://www.anest.lv)
- BESEDIM: Belgian Society of Emergency and Disaster Medicine (http://www.besedim.be)
 BVAR/SBAR: Belgian society of Anesthesia and Reanimation (http://www.sarb.be)
- DGAI: German Society of Anesthesia and Intensive Care (http://www.dgai.de)
- DIVI: Deutsche Interdisziplinäre Vereinigung für Intensiv- und Notfallmedizin (http://www.divi-org.de)
 EACTA; European Association of Cardiothoracic Anaesthesiologists (http://www.eacta.org)
- ESA: European Society of Anesthesia
- (http://www.euroanesthesia.org)
- ESICM: European Society of Intensive Care Medicine
- EUSEM: European Society of Emergency Medicine (http://www.esicm.org)
 GSACCM: Georgian Society of Anesthesiology
- (http://www.gsaccm.ge)
- HSICM: Hellenic Society of Intensive Care Medicine
- (http://www.icu.gr)
 ICS: Intensive Care Society (http://www.ics.ac.uk)
 IPACCMS: International Pan Arab Critical Care Medicine Society (http://www.ipa-ccms.org)
- ISICEM: International Symposium on Intensive Care and Emergency Medicine (http://www.intensive.org)
- MAITT: Hungarian Society of Anesthesiology and
- Intensive Therapy (http://anesztinfo.hu)
 MAPAR: Mise Au Point en Anesthésie Réanimation
 (http://www.mapar.org) NVA: Nederlandse Vereniging voor Anesthesiologie
- (http://www.anesthesiologie.nl)
 NVIC: Nederlandse Vereniging voor Intensive Care
- (http://www.nvic.nl)
- OEGARI: Austrian Society of Intensive Care Medicine (http://www.oegari.at)
 PTAIIT: Polish Society of Intensive Care (http://www.ptaiit.org)
 SARM: Society of Anesthesiology and Reanimatology,

- Republic of Moldova (http://www.ati.md)
- SASA: South African Society of Anaesthesiologists
- (http://www.sasaweb.com)
 SEMICYUC: Spanish Society of Intensive Care
 (http://www.semicyuc.org)
 SFAR: Société Française d'Anesthésie et de Réanimation (http://www.sfar.org)
- SGAR-SSAR: Schweizerischen Gesellschaft für Anästhesiologie und Reanimation (http://www.sgar-
- ssar.ch) SGI-SSMI: Schweizerische Gesellschaft für Intensivmedizin (http://www.sqi-ssmi.ch)
- SIZ: Belgian Society Intensive Care (http://www.siz.be)
- SRLF: Société de Réanimation de Langue Française (http://www.srlf.org)
- SPCI: Portuguese Society of Intensive Care
- (http://www.spci.pt)
 SRATI: Romanian Society of Intensive Care Medicine (http://www.srati.ro)
- SZAIM: Slovenian Society of Intensive Care Medicine (http://www.szaim.org)
- SWESEM: Swedish Society for Emergency Medicine
- (http://www.swesem.org)
 UAIS: Serbian Association of Anaesthesiologists and Intensivists (http:// http://www.uais.rs)
 WFSICCM: World Federation of Societies of Intensive
- and Critical Care Medicine (http://www.world-critical-
- care.org)
 WSACS: World Society on Abdominal Compartment syndrome (http://www.wsacs.org)



Top ten things to see and do in Antwerp

The Hilton Antwerp hotel is set on Groenplaats, Antwerp's most famous town square and is surrounded by a variety of Antwerp attractions. Guests staying at the Hilton Antwerp hotel will find top attractions including Antwerp Zoo, the National Maritime Museum and the Cathedral of Our Lady on their doorstep. Visit the MAS Museum and Rubens House Museum or discover Antwerp's best fashion retailers and the fashion museum. Located in the vibrant center of Antwerp, this hotel boasts easy access to Antwerp's finest shops and restaurants and the exclusive Diamond District and Diamond Museum.

De Koninck

Established in 1833 De Koninck is the only brewery in the famous city of Antwerp, it is the name of the brewery and also the name of its main product. De Koninck is Antwerp's everyday beer. No other city in Belgium has such a close relationship with its local beer and no other city in Belgium has such a speciality beer to call its own. The De Koninck brewery has been renovated, expanded and modernized several times over the years but the pride, passion an crafts-manship of the original brewmasters has not been affected. Today, five generations later, the Van den Bogaert family maintains this noble tradition. The unique glass is known as a 'bolleke' in Antwerp the name is synonymous with De Koninck beer. In fact throughout the world the special ball shaped glass is linked to De Koninck.

City of Diamonds

Let the beauty and history of Antwerp's Diamond District impress you! Antwerp World Diamond Centre is not just a slogan. 'Ántwerp quality' and 'Antwerp cut' are international trade terms synonymous with perfect processing and flawless beauty. Antwerp has a long and magnificent tradition as a diamond city. Since the 15th Century the city has played an important role in the diamond trade and industry. After the port, the diamond industry is the second pillar of commercial activities. Some 1,500 diamond companies are concentrated in the city centre. In less than one square kilometer nearby Central Station, more than half of all cut diamonds pass through a network of diamond cutting shops, diamond bourses and selling centers.

City of Fashion and Shopping

of the fashion city Antwerp owes its reputation to the pioneers of the fashion movement, the so-called 'Antwerp Six': Walter Van Beirendonck, Ann Demeulemeester, Dries Van Noten, Dirk Van Saene, Dirk Bikkembergs and Marina Yee travelled to Londen and Paris together in the Eighties as well as Martin Margiela (the seventh). Together they conquered the fashion world with their very distinct vision of fashion. Shopping areas are close by with The Meir street and the Huidevettersstraat. The Hilton Antwerp offers you the perfect location with the shopping district starting just at the exit of the hotel.

Harbour tour

The Scheldt, a life line through the ages. The romantic Victorian images of cruise ships, ladies with parasols and gentlemen in top hat and tails disembarking onto cobbled streets from cruise liners has never left the Port of Antwerp. The echoes are loud and continue to shape the City as it is today. The saying goes 'The Scheldt River owes its existence to God, Antwerp owes its existence to the Scheldt River', it is hard to imagine Antwerp without the River Scheldt.

The city's prosperity has ebbed and flowed with the mighty Scheldt giving the city its international outlook. As the most important European port and one of the most productive ports worldwide Antwerp rubs shoulders with the top ten global ports. Its expansive 13, 500 hectares crown the north of the city, lying in wait to be discovered by you either on foot, by boat, car or bike. Stroll along the quays in the city centre to explore the history that oozes from the cobbles. Hear the laughter of excited passengers, hold someone's hand as you sit under the lights on the promenade. Gaze across the water watching the changing colors reflecting on the ripples. The skyline silhouetted against the sunset, takes you back to the age of romance, cruise ship travel and the allure of foreign lands. Antwerp Tourism & Convention has information on how to discover Antwerp's millennial port history.

Red Star Line Museum

Open from 28th September 2013, this jewel covers the emigration boom from Europe to America starting in 1800. The Red Star Line Museum invites you on an eventful journey in the footsteps of the emigrants. Become acquainted with the passengers and accompany them on their trip from their

native village to Antwerp. The ocean steamers of the Red Star Line are docked on the quay ready to depart for the New $\,$ World. Exciting and personal stories accompany you across the ocean. On the other side of the ocean you say goodbye to your fellow passengers.

Aquatopia

Aquatopia is like living under the ocean in the future. Here a huge collection of exotic fish, animals, sharks, piranhas, rays and octopuses live in 35 aquariums. Aquatopia, shows us the real beauty and diversity of nature. Visit the tropical rainforest, along rivers, through underwater caves and coral reefs to the bottom of the ocean, with fish and other water creatures leading the way. Children and adults of all ages can learn about our wondrous underwater world through educational programs and interactive museum displays.

The Zoo

The Antwerp ZOO is one of the oldest and best-known zoos in Europe. It will take you and your parents at least half a day to see and do it all! The penguins live in Vriesland with their own arctic enclosure, elephants and giraffes are as tall as the Egyptian temple they stay in and hippopotamuses goof around in a pink villa. 950 different species and 5000 animals live at the zoo, that's more than all the sweets you'll ever eat all in one place! Antwerp ZOO is also a very special place because it has a program to help save animals that are endangered such as bonobos and okapi. What are they? You may ask – well come and visit the zoo to see who's who! The Zoo's beautiful buildings and garden have been listed as monuments and when it was built in 1843, more than 150 years ago it was just outside of the city's walls. Now – the city has grown so much that the ZOO is now in the middle of town and is a green oasis next to Central Station

The MAS museum located at the river Scheldt offers an impressive exhibition, topped with a stunning view over the city. The MAS is more than a museum. It also includes a Visible Storage, a museum square, contemporary art, a well-thought architecture, ... Mission statement: The MAS is a ground-breaking museum that tells the story of the people, the past, present and future of the city of Antwerp and the world. The MAS is more than a museum. It is a new city centre; a new meeting place where there is always something to see and do. As well as being a museum, the MAS is a striking monument in Antwerp.

Discover the Rubens House and experience the soul of Peter Paul Rubens' former home and studio. The rich collection of The Rubens House will be complemented this autumn with a few remarkable, long-term loans from private collections. Rubens is one of the greatest painters of all time. His works can be found all around the world. Don't forget to visit the studio. Most of Rubens's works were created in this studio. On the work floor, he demonstrated his talent as artist and organiser. Pupils, assistants and colleagues assisted him in the production of more than 2,500 'Rubens paintings'. The art room: in seventeenth-century Antwerp, some prosperous citizens had accumulated large collections of art. Rubens's collection was the largest in the city in his time. The courtyard and the porch: enter the Rubens House in the way Rubens intended: through the main door that leads to the elegant courtyard. A city garden: during the restoration that took place in the 1940's, the garden of the Rubens House was completely re-laid.

Cathedral of Our Lady
The Roman Catholic Cathedral Of Our Lady, featuring works
by Rubens, is located in the heart of the "Groenplaats". As
Father Louis Van Lommel stated: "Not only is our cathedral the largest Gothic church in the Low Countries, it also tells a story of glory and prosperity – and even more so one of sorrow and disaster. This is the story of people who built dreams, people who expressed their allegiance to God and their fellow men. For over a thousand years, Mary has been the patroness of this Cathedral and of the city of Antwerp; each year thousands of people come and express their love and sorrow to Mary. This church is much more than just a museum filled with valuable treasures, it is still an active place of worship. Time and again, we feel the need to have this story being told. However, we cannot do this alone. The Province of Antwerp and the Flemish Region both donate substantial amounts of money for the restoration of the Cathedral. Yet, daily maintenance of the Cathedral alone costs 1.5 million Euros each year: this makes your entry fee indispensable. We would like to continue welcoming our average of 320,000 visitors each year under the best conditions possible and let them enjoy the beauty of this building this is a place where light and stones all tell a story.

Further Information

The Antwerp tourist office recommends the following areas: Central Station Area to visit central station and the city Zoo/Aquatopia. The Diamond Area with the diamond muse-

The historical city centre with lots of Musea (Rubenshome, Plantin en Moretus, Fashion museum); 5 monumental churches amongst which the Cathedral of our Lady; the Central Marketplace with the historical Town Hall and "The Steen" building along the river Schelde. The Area around the "little Island", called "Het Eilandje" with the MAS (Museum At the River) and the Red Star Line museum.

You can download a PDF with the Antwerp city map via: http://www.visitantwerpen.be/docs/Stad/Bedrijven/Actieve_s tad/as_tnc/Stadsplan_A4_2.pdf

Contact details:

Didier Janssens | visitors centre

Citu of Antwerpen | Antwerpen Tourism & Congress Grote Markt 13 | 2000 Antwerpen tel + 32 3 232 01 03 (monday to Friday between 9:00-17:45) toerisme@stad.antwerpen.be | www.visitantwerpen.be

Join us for a special gala evening and networking event on Friday Nov 27th 20:00 — 24:00

The beautiful city of Antwerp, one of the biggest sea-harbours in the World and famous for it's fashion designers, beer and diamonds is located in the North of Belgium. The shores alongside the river "Schelde" offer a peaceful and inspiring environment.

VERDI: Our ship, the Verdi is a Passenger boat with a seating capacity of 350 people. We will board at the old Steen museum at the banks of the river "Schelde", and you will take part in Rivertours' guided boat tour with the other 5th Anniversary iFADparticipants. Our captain will take you through the most beautiful spots on our Antwerp waterways, along the rivers, canals and docks of Antwerp Harbour. You will enjoy a meal on board and celebrate the 5th iFAD in style. We offer this not-to-be-missed exclusive gala evening and networking event to all participants and friends at a reduced rate of only 55 EUR.



DIAMOND SPONSORS

Baxter GAMBRO. PULSION MAQUET

Medical Systems GETINGE GROUP

SILVER SPONSORS





BRONZE SPONSORS



STANDARD SPONSORS





















WITH SYMPATHY SPONSORS











Meeting Rooms :: 3rd Floor

Room Teun

Industry Exhibition, Coffee and Lunch Breaks

Room Lijn

Friday: Parallel Sessions (Industry Satellite Symposia, Tutorials and Oral and Poster Presentations),

Saturday: Parallel Sessions, Oral and

Poster Presentations

Belle Epoque Foyer

Registration, Industry Exhibition, Scientific Societies,

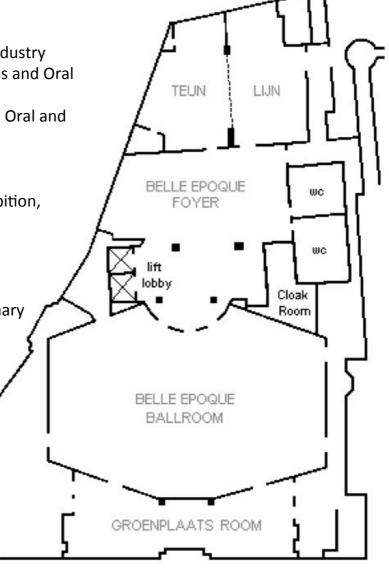
Coffee and Lunch Breaks

Room Belle Epoque

Main Symposium Hall, Plenary Sessions, Industry Satellite Symposia and Tutorials on Friday, Oral and Poster Presentations on Friday and Saturday,

Room Groenplaats

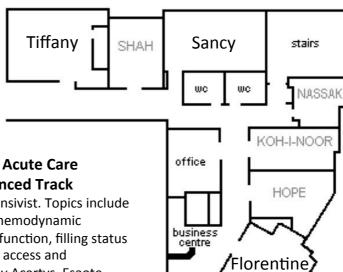
Thursday: Nursing Session and ICU Quiz



Meeting Rooms :: 2nd Floor

Room Sancy :: Course on Acute Care ultrasound (3rd CACU) – Beginners Track

Basic echo course for the intensivist. Topics include: introduction to BLUE protocol, lung, abdominal, and cardiac ultrasound.



Room Florentine :: Course on Acute Care ultrasound (3rd CACU) – Advanced Track

Advanced echo course for the intensivist. Topics include in depth LUCI and BLUE protocol, hemodynamic assessment of left and right heart function, filling status and fluid responsiveness. Vascular access and transcranial doppler. (Supported by Acertys, Esaote, General Electric, Philips, Sonosite Fujifilm)

Room Tiffany + Shah :: Handson Sessions

Handson sessions with life models alternating between basic and advanced participants. (Supported by Acertys, Esaote, General Electric, Philips, Sonosite Fujifilm)









lobby

Industry Exhibition Plan

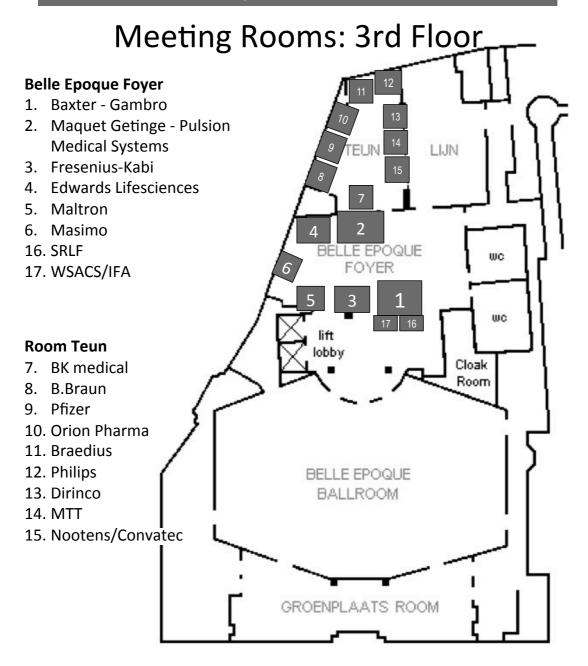


Figure. Overview of the sponsor booths on the congress floor plan (3rd floor)

Sponsor categories

Diamond: Baxter, Gambro, Maquet Getinge Pulsion Medical Systems.

Silver: Fresenius Kabi, Edwards Lifesciences,

Bronze: Maltron,

Standard: BBraun, BK Medical, Braedius, Convatec, Dirinco, Gambro, Masimo, MTT, Nootens, Orion Pharma, Pfizer, Philips.

With sympathy: Acertys, Bellco, Cytosorbents, CAF-DCF, Dräger, Esaote, GE healthcare, Sonosite Fujifilm

Company profiles

ACERTYS

Acertys Group operates in the fields of consultancy, sales and integration, training, and technical support of medical technology, hardware, software, and equipment for healthcare, industrial, emergency services, disaster control, fire brigade, police, and defense force applications. It offers surgical instruments, including open surgery, minimal invasive surgery, and diathermia instruments; supplies and accessories, such as monitoring, ventilation, diagnostics, and maternal and infant care products; hospital technologies; and information management systems, including OR management, critical care, anesthesia, labor and delivery, cardiology, and interfacing. The company provides medical services and products for ambulance services, occupational health, business assistance services, external prevention services, pharmaceutical firms, general practitioners, health organizations, medical offices, research centers, rest and care establishments, swimming pools and sports centers, and hospitals; and fire-fighting products and services, including absorption, breathing protection, treatment of burns, gas detection, skin protection, clothing, rescue, signaling equipment, tents, test and cleaning equipment, guardrails, lighting and accessories, and infrared camera and accessories, as well as foot, hand, and head protection. It offers federal and local police products and services, such as drugs tests, first aid, forensic products and services, such as drugs tests, first aid, forensic products, interview rooms design, clothing, measuring equipment, maintaining order, signaling and traffic control, and safety equipment; and defense products and services. The company provides field repair and preventive maintenance services. Acertys Group was founded in 2007 and is based in Aartselaar, Belgium.

BAXTER

Baxter develops, manufactures and markets products and therapies that save and sustain the lives of people with hemophilia, immune disorders, cancers, kidney disease, malnutrition and other acute medical conditions. As a global, diversified healthcare company, Baxter applies a unique combination of expertise in pharmaceuticals, biotechnology and medical devices to create products that advance patient care worldwide.

BBRAUN

Introducing new concepts for infusion therapy. With innovative and state of the art products focused on clinical safety, B.Braun leads the changing demands in health care around the world. From the infusion solution to venipuncture – all components are designed in an integral modular system keeping patient safety as our first priority. Welcome to B. Braun Belgium, your partner in healthcare. Innovative, competent and reliable. For more than 175 years, the B.Braun group is a quality partner in healthcare. The development of innovative medical and pharmaceutical products and services is our is our core business with the sole aim of improving the treatment of patients at all stages of treatment, from hospital to back home.

BELLCO

Bellco offers worldwide therapeutic systems for blood purification in Dialysis, Intensive Care, and Cardiology. Since 1972, Bellco has continually been developing highly reliable, sophisticated products aimed at renal treatments. The current product range for advanced haemodiafiltration treatments shows that the company is steering towards becoming even more specialised in personalised products dedicated to specific renal conditions.

BK MEDICAL

Analogic Benelux NV is a subsidiary of the company Analogic Corp. Analogic 's ultrasound group designs and manufactures ultrasound systems and specialized medical transducers for under the brand name BK Ultrasound. BK Ultrasound offers ultrasound technology for all medical subdisciplines, focusing on the surgical applications in the broadest sense of the word

BRAEDIUS

Braedius Medical BV was established in 2011. Its mission is to develop tools allowing the clinician to assess the microcirculation in an easy way. To achieve this goal Braedius has, as a first step, developed a video camera with accompanying analysis software. It is a true European project. Hardware has been developed by Dutch engineers, optics come from Germany. The imaging software is being developed by Kitware SAS from France. However, Braedius management is responsible for design and architecture of both hardware and software. Final assembly and testing is being done in the Netherlands. To further develop its product a close cooperation with medical research groups is being built. Braedius has expanded its operation in the USA with an office in Wilmington, Delaware. For more information please contact: sales@braedius.com. Braedius Medical BV, Bikbergerweg 18, 1272 PM Huizen, The Netherlands, Phone: +31-8876100, www.braedius.com.

CAF-DCE

A cooperative society with limited liability formed under Belgian law, the Central Fractionation Unit of the Red Cross (C.A.F.-D.C.F.) specialised in blood plasma fractionation and the preparation of stable plasma derivatives: coagulation factors, immunoglobulins and albumin solutions. Plasma drawn from volunteer and unpaid donors is used as the basis for these plasma derivatives for the Belgian health care services. The use of this blood plasma drawn from donors and the preparation of products intended for patients are the cornerstone of a "human-to-human approach".

CONVATEC

ConvaTec is a leading developer and marketer of innovative medical technologies that have helped improve the lives of millions of people worldwide. With four key focus areas – Ostomy Care, Wound Therapeutics, Continence and Critical Care and Infusion Devices – ConvaTec products support healthcare professionals from the hospital to the community health setting. For more information, please visit: www.convatec.com

CYTOSORBENTS

Corporation is a critical care focused immunotherapy company using blood purification to modulate systemic inflammation - with the goal of preventing or treating multi-organ failure in life-threatening illnesses. Its purification technology is based on biocompatible, highly porous polymer beads that can actively remove toxic substances from blood and other bodily fluids by pore capture and adsorption. http://www.cytosorbents.com

DIF

DIF Media is a leader in the field of (interactive) congress support through use of the latest techniques, materials, audiovisual and (social) media. We combine years of experience in various industries combined with passion, creativity, inventiveness and flexibility. Information: www.difmedia.nly inventiveness must be supported by the support of th

 ${\sf rode-ZNA-ARVAL-Fresenius\ Kabi-RIVM-VVP-NOVO\ Nordisk-VUB-Topigs-UNIZO\ }$

DIRINCO

Dirinco is supplying and producing medical equipment, disposables and (hemofiltration) fluids for extracorporeal therapies, like CRRT. In our 26 years of existence, our main focus goes to Intensive Care and Dialysis Departments. Amongst others, we supply a full range of products in the field of CRRT.

DRAGER

"We do everything we do with passion – and we do it for life." (Stefan Dräger, Executive Board Chairman). As an international leader in medical and safety technology, Dräger develops innovative equipment and solutions that people all over the world over trust when lives are on the line. Our medical division's product range covers anesthesia workstations, ventilation equipment for intensive care, emergency, neonatal and mobile ventilation units, warming therapy equipment for infants, patient monitoring equipment, IT solutions, architectural systems and gas management systems.

EDWARDS LIFESCIENCES

Edwards Lifesciences specializes in products for hemodynamic monitoring and hemofiltration. The Swan-Ganz™ PAC and Vigilance™ Monitor are the leading brands in hemodynamic monitoring. Today, Edwards is proud to announce the introduction of the FloTrac™ Sensor and Vigileo™ monitor, with the PreSep™ ScvO₂ catheter. Additional leading critical care products include TruWace™ transducers, and Multi-Med™ & Vantex™ catheters. Edwards Lifesciences innovative approach to acute blood purification therapies has resulted in a full range of CRRT product including the Aquarius™ ABP System Hardware. Edwards Lifesciences recently acquired BMEYE and now provides a noninvasive solution for the measurement of cardiac output (CO) and other advanced hemodynamic parameters via the ccNexfin monitor. Helping to advance the care of the critically ill for over 40 years, Edwards Lifesciences seeks to provide the valuable information you need, in the most appropriate platform given patient complexity. Through continuing collaboration with you, ongoing education and our never-ending quest for advancement, our goal is to deliver clarity in every moment.

ESAOTE

Esaote is one of the world's leading producers of medical diagnostic systems. It is well established as a Europe-based leading ultrasound manufacturer, and internationally acknowledged to be the world leader in dedicated MRI. The Esaote Group is also one of the main players in the sector of Information Technology for healthcare.

FRESENIUS KABI

Fresenius Kabi is the leader in infusion therapy and clinical nutrition in Europe and in most important countries of Latin America and Asia Pacific. Within I.V. generic drugs, Fresenius Kabi counts among the leading suppliers in the U.S. market. All over the world more than 24,000 employees are committed to improving the quality of life of critically and chronically ill patients with innovative products for patients in hospitals and outpatients.

GAMBRO

The critical condition of the ICU patient requires sage, efficient and flexible therapeutic options. Gambro has used its know how in blood purification to develop innovative concepts to offer treatments for renal and liver failure. Gambro is now fully integrated within Baxter.

GENERAL ELECTRIC - GE HEALTHCARE

GE Healthcare provides transformational medical technologies and services to meet the demand for increased access, enhanced quality and more affordable healthcare around the world. GE works on things that matter, great people and technologies taking on tough challenges. From medical imaging, software and IT, patient monitoring and diagnostics to drug discovery, biopharmaceutical manufacturing technologies and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients.

MALTRO

Maltron is a leading manufacturer of Bio-electrical and Electrical Impedance Tomography used in the assessments of Body and Abdominal Composition, Malnutrition, Fluid Monitoring and for monitoring lung diseases bedside by leading hospitals and institute worldwide. The company focus is on the research, development, manufacture and marketing of innovative products. Maltron products are well known for quality, reliability and consistent reproducibility providing reliable assessment of Body Composition and hydration in a simple, safe and scientific manner.

MASIMO

Masimo is a global medical technology company responsible for the invention of award-winning non-invasive technologies, medical devices, and sensors that are revolutionizing patient monitoring, including Masimo SET®, Masimo Rainbow® Pulse-CO-Oximetry™, non-invasive and continuous haemoglobin (SpHb®), acoustic respiration rate (RRa™), Masimo Patient SafetyNet™, SedLine® (EEG-based) brain function monitors, and Phasein™ respiratory monitors.

MAQUET GETINGE

Maquet, a trusted partner for hospitals and physicians for more than 175 years, is a global leader in medical systems. The company offers innovative therapy solutions and infrastructure capabilities for high-acuity areas within the hospital - including the operating room, hybrid OR, and intensive care unit - as well as intra- and inter-hospital patient transport. Additionally, Maquet develops intelligent and sustainable room concepts that exceed the expectations of modern hospitals, working in close cooperation with customers, production engineers and architects to integrate high quality products and services. Headquartered in Rastatt, Germany, Maquet is the largest subsidiary of the publicly listed Getinge Group AB of Sweden. Maquet generated about 1.55 billion Euros in 2014, representing more than half of the Getinge Group's annual revenue of 2.93 billion Euros. Maquet has around 7,000 employees and provides 53 international sales and service organizations. Maquet is The Gold Standard. For more information, please visit www.maquet.com.

мтт

Medical Technology Transfer is founded in 1993 and has the ambition to effectively support medical practice and medical treatment with carefully selected, evidence based technologies. MTT focuses on the introduction, delivery and maintenance of directly applicable clinical measuring, monitoring and respiratory equipment and related systems with high added value. Neonatology, developmental care and optimal care of the heart and lung function are focus points. At the same time is an excellent support to both doctors and nurses as well as medical physicists and medical technicians a high priority. Hereto MTT offers training standard with procurement of a system and a telephone helpline 24 hours, seven days a week available for user questions and emergency support. Also the short and long term rental of systems belongs to the possibilities. The "budget save rent" is developed together with some major clients and is frequently asked for nowadays. MTT supports medical research and promotes the exchange of knowledge and experience between users and manufacturers. MTT is specialised in noninvasive monitoring of ventilation and perfusion. The evidence based monitoring technology for hemodynamic opti-

mization of ICU and OR patients, the Oesophageal Doppler

Monitor ODM. Please contact us, info@mttnl.com, to demonstrate the CardioQ ODM or introduce you to the substantial high quality evidence base that reveals both clinical and economic grounds for use of ODM-guided fluid management.

NOOTENS

In the early 50's, Mr Henry Nootens was already active in the World of the hospitals. In 1957 he founded the company named H. Nootens SA. Those days, the fundamentals of the gamma of hospitalization were made. The range of products contained needles and syringes, sterilization boxes, urologic catheters, endotracheal tubes, all kinds o bandages etc. In 1968 the surgical department is created and offers a range of products for the use in the OR: surgical instruments, instruments for thoracic drainage, orthopedic en ophthalmologic implants. These days, our team of 12 specialized representatives visits the hospitals on daily basis. The group Hospiplan-Nootens was founded in 1996 to adapt the activities better to the reality of the European market. Thanks to a good management of our stock, we are able to supply most of our orders of common products to the hospitals in a small amount of time. During 2004, efforts in the area of Quality Care made it possible to acquire the certificate ISO 9001-2000 and EN 13485:2003.

ORION PHARMA

Orion is a globally operating Finnish company developing pharmaceuticals and diagnostic tests, a builder of well-being. Orion develops, manufactures and markets human and veterinary pharmaceuticals, active pharmaceutical ingredients and diagnostic tests. The company is continuously developing new drugs and treatment methods. Pharmaceutical R&D focuses on central nervous system drugs, oncology and critical care drugs, and Easyhaler ® pulmonary drugs.

PFIZER

Pfizer Inc, founded in 1849, is dedicated to better health and greater access to healthcare for people and their valued animals. Our purpose is helping people live longer, healthier, happier lives. Our route to that purpose is through discovering and developing breakthrough medicines; providing information on prevention, wellness, and treatment; consistent high-quality manufacturing of medicines, consumer products; and global leadership in corporate responsibility. Every day we help 38 million patients, employ more than 100,000 colleagues, utilize the skills of more than 12,000 medical researchers, and work in partnership with governments, individuals, and other payers for healthcare to treat and prevent illnesses—adding both years to life, and life to years.

PHILIPS

Philips Medical Systems consists of patient monitoring and clinical information systems, automated external defibrilla-tors, such as HeartStart, and electrocardiography. These products are targeted at health providers including hospitals, outpatient clinic, physician offices, emergency rooms, and home-health services.

PULSION MEDICAL SYSTEMS

Founded more than 20 years ago in Munich Germany, Pulsion has become a leading specialist in haemodynamic monitoring and provides the clinician with a variety of technologies to optimise the haemodynamic management of patients in ICU and in the OR; transpulmonary thermodilution technique for cardiac output, preload and lung water measurements (PiC-CO); fibreoptic continuous measurement of the central venous oxygen saturation via standard CVC (CeVOX); noninvasive evaluation of the liver function and splanchnic perfusion with indocyanine green dye (LiMON); non-calibrated CO trend measurement via standard arterial line (ProAQT); and the PulsioFlex monitoring platform with the modular concept

to enable patient centered flexibility. Pulsion Medical Systems is now fully integrated within Maquet Getinge Group.

SONOSITE FUJIFILM

ionoSite, Inc. (www.sonosite.com), a subsidiary of FUJI-FILM, is the innovator and world leader in bedside and pointof-care ultrasound and an industry leader in ultra highfrequency micro-ultrasound technology and impedance cardiography equipment. Headquartered near Seattle, the company is represented by ten subsidiaries and a global distribution network in over 100 countries. SonoSite's small, lightweight systems are expanding the use of ultrasound across the clinical spectrum by cost-effectively bringing highperformance ultrasound to the point of patient care. Size is everything for SonoSite. The firm makes handheld ultrasonic imaging devices that health care providers can use outside traditional imaging facilities, for instance, in the ER, at a patient's bedside, or in the doctor's office. Its fourth- and fifth-generation systems include the handheld NanoMaxx tool and the M-Turbo and Edge portable consoles that produce imaging quality comparable to larger cart-based systems. Its S Series of products feature customized interfaces for different clinical applications, including the ER or the ICU.

Endorsing societies

IFA International Fluid Academy

Founded in 2011 during the 1st International Fluid Academy Day (iFAD) meeting the goals of the IFA are to foster education and promote research on fluid management, and thereby improve the survival of critically ill patients by bringing together physicians, nurses, and others from a variety of clinical disciplines. The primary goal of the IFA is to establish an international collaboration group with the final aim to improve and standardize care and outcome of critically ill patients with an emphasis on fluids, fluid management, monitoring and organ support. This can be achieved by collaborative research projects, guideline development, joint data registration and international exchange of health care workers and researchers. The acquired knowledge and results of research will be published in Anaesthesiology and Intensive Therapy (http://czasopisma. viamedica.pl/ait), and shared with his peer group each year during international scientific meetings like the iFAD.

SRLF Société de Réanimation de la Langue Française

The French Intensive Care Society (FICS) is a learned society founded in 1971. Today it has 3500 members and operates in two main areas: continuing medical education and post-university teaching, and promotion of clinical research and assessment of hospital-based intensive care. Through these two objectives, the FICS, together with all those involved in intensive care, has a fundamental aim: to give intensive care its rightful place in the health system.

WSACS World Society on Abdominal Compartment Syndrome The WSACS has been founded to serve as a peer-reviewed forum an educational resource for all health care providers as well as industry that have an interest in the diagnosis, prevention and treatment of abdominal compartment syndrome (ACS). The mission is to foster education, promote research, improve survival of patients with intra-abdominal hypertension and ACS by bringing together physicians, nurses and others worldwide from a variety of cynical disciplines. For more information and download of educational material check our website (www.wsacs.org). Become a member during the iFAD and benefit from reduced rates for the 7th World Congress on Abdominal Compartment Syndrome (WCACS) in 2015, taking place in "Het Pand" in the city of Ghent in Belgium, on May 28-30.

Advertorials and AKIP's (abstracts on key innovative products)

BAXTER

Baxter Healthcare has a diversified portfolio. Baxter develops, manufactures and markets products and therapies that save and sustain the lives of people with hemophilia, immune disorders, cancers, kidney disease, malnutrition and other acute medical conditions. As a global, diversified healthcare company, Baxter applies a unique combination of expertise in pharmaceuticals, biotechnology and medical devices to create products that advance patient care worldwide.

BELLCO

Acute respiratory distress syndrome (ARDS) is a respiratory disorder characterized by an acute onset, bilateral infiltrates on a chest Xray ,pulmonary artery wedge pressure <18 mmHg or absence of clinical evidence of high left atrial pressure, and a PaO2/FiO2 ratio ≤200 [1, 2]. The incidence of ARDS is 30-40 cases per 100,000, and the syndrome can develop following a wide range of clinical conditions (e.g. pneumonia, trauma, massive transfusion, pancreatitis). In this kind of patients, gas exchange is impaired and mechanical ventilation is needed. The use of low tidal volumes is more lung protective but can be associated with hypercapnia and respiratory acidosis. Extracorporeal CO2 removal (ECCO2-R) is a therapeutic option to correct pH and enhance lung protection allowing low tidal volume for the treatment of adult ARDS. ABYLCAP is a therapeutic strategy aimed to reduce intubation incidence and time, two important factors in improving patient survival. Reducing the need for orotracheal intubation also reduces related side effects, including, but not limited to: trauma of the upper airways, speech and swallowing impairment; and especially pneumonia, which has a 30% incidence on mortality. The system consists of a paediatric polymethylpentene hollow fiber membrane oxygenator. The oxygenator and the incorporated heat exchanger are coated with a nonthrombogenic phosphoryl-choline coating. ABYLCAP therapy is able to work continuously for 4 consecutive days with a blood flow (QB) comprised in the range of 200-400 ml/min and 100% O2 flow (QG: 0.5-8 L/min). Recent clinical experiences and animal model demonstrate the feasibility and by is able to work continuously for 4 consecutive days with a safety of the device. In 2012 Turani et al [3] enrolled ten patients in a pilot study. In this trial, before starting the Extracorporeal CO2 removal, in order to minimize VILI (ventilator-induced lung injury) all patients were ventilated as suggested by the ARDS Network (ARDS Net) [4] with tidal volume (VT) between 4–6 mL/kg and peak pressure >35 cmH2O. A femoral vein cannulation with a double-lumen catheter was used to connect the patients to the extracorporeal system. The mean value of pH raised from 7,24 \pm 0,06 at the beginning to 7,41 \pm 0,07 after four days of the treatment with reduction of PaCO2 value from 70 \pm 5 to 52 \pm 3. CO2 removal by membrane oxygenator ranged from 56 to 37 ml/minute. All patients survived to the treatment and 7/10 were weaned from the ventilator at the end of ECCO2 removal. Only one oxygenator was used for every patient without clotting of the circuit or any major bleeding problem. A second pilot study have been done by Eloot et al [5] in 2013. They presented a case of 56-year-old man with ARDS. The patient was treated for seven consecutive days with ECCO2 removal. Every 24 h blood samples were taken at the Abylcap inlet and outlet, under different conditions of blood (QB: 200-400 mL/min) and 100% O2 flow (QG: 0.5-8 L/min). Blood samples were analysed for total CO2 content, partial O2 tension, O2 saturation and haemoglobin concentration. Acidosis and oxygenation parameters gradually improved during the support period of 7 days. For a fixed QG, CO2 transfer linearly increased with QB (i.e. from 59 to 101 mL/min for QB 200-400 mL/min and QG7 L/min). For a fixed QB, CO2 transfer non-linearly increased with QG and flatted for QG≥6 L/min. Gas transfer remained constant over 5 days: for QB = 400 mL/min and QG = 6 L/min, CO2 transfer was 99 \pm 6 mL/min and O2 transfer was 45.5 \pm 0.3 mL/min. Also in this case the ECCO2-R with ABYLCAP seems to be a promising therapy when treating patients with ARDS. In conclusion Abylcap removes CO2 quickly, easily and effectively with utmost safety while at the same time optimizing mechanical ventilation and protecting the patient's lungs. Bellco proposes this method to treat patients suffering from ALI (Acute Lung Injury) and ARDS (Acute Respiratory Distress Syndrome) triggered by other diseases such as sepsis, MOF (Multi Organ Failure), COPD (Chronic Obstructive Pulmonary Disease) and multi-trauma

References:

- Bernard GR, Artigas A, Brigham KL, et al.: The American-European Consensus Conference on ARDS. Definitions, mechanisms, relevant outcomes, and clinical trial coordination. Am J Respir Crit Care Med 1994, 149(3 Pt 1):818-824.
 Artigas A, Bernard GR, Carlet J, et al.: The American-European
- Artigas A, Bernard GR, Carlet J, et al.: The American-European Consensus Conference on ARDS, part 2. Ventilatory, pharmacologic, supportive therapy, study design strategies and issues related to recovery and remodelling. Intensive Care Med 1998, 24(4):378-398.
- Turani F, Martini S, Marinelli A, et al. ECCO2 removal with a phosphorylcholine-coated membrane oxygenator in difficult respiratory weaning patients. Critical Care 2013; 17 (Suppl 2):P129
- Network TA: Ventilation with lower tidal volumes as compared with traditional tidal volumes for acute lung injury and the acuterespiratory distress syndrome. The Acute Respiratory Distress Syndrome Network. N Engl J Med 2000; 342:1301– 1308
- Peperstraete H, De Somer F, Claus S, Dhondt A, Vanholder R, Hoste E, Eloot S: ABYLCAP as promising device to treat patients with acute respiratory distress syndrome (ARDS). Int J Artif Organs 2014; 37 (8): in press

CONVATE

With the UnoMeter™ Abdo-Pressure™ Intra-Abdominal Pressure (IAP) Monitoring System and the AbViser™ Auto-Valve™ IAP Monitoring System, ConvaTec is a global leader in IAP Monitoring. The UnoMeter™ Abdo-Pressure™ IAP Monitoring System is a simple, reliable and cost-effective diagnostic tool. The AbViser™ Auto-Valve™ IAP Monitoring System provides accurate and reproducible IAP measurements by measuring the hydrostatic pressure in the urinary bladder [6]. These devices can be used by clinicians that are concerned about managing Intra-Abdominal Hypertension (IAH) in their patients in their efforts to prevent Abdominal Compartment Syndrome (ACS). Using protocols based on the guidelines from the World Society on Abdominal Compartment Syndrome, this easily obtained data allow clinicians to monitor IAP in patients at risk and intervene in order to improve patient outcomes [1,2,4,5,7]. Management of patients according to an algorithm including both operative and nonoperative interventions has been shown to increase patient survival whilst reducing ICU and hospital length of stay [3]. ™UnoMeter and Abdo-Pressure are trademarks of Unomedical a/s and ™AbViser and AutoValve are trademarks of ConvaTec Inc.

References:

- Cheatham ML, Malbrain, ML, Kirkpatrick, A et al. Results from the International Conference of Experts on Intra-abdominal Hypertension and Abdominal Compartment Syndrome. II.Recommendations. Intensive Care Med 2007; 33: 951–962.
- Cheatham ML. Nonoperative Management of Intraabdominal Hypertension and Abdominal Compartment Syndrome. World L Surg 2000; 22(6): 1116–1122
- J Surg 2009; 33(6): 1116–1122.
 3. Cheatham, ML, Safcsak RN. Is the evolving management of intra-abdominal hypertension and abdominal compartment syndrome improving survival? Crit Care Med 2010; 38(2): 402–407.
- De Keulenaer BL, De Waele JJ, Malbrain ML. Nonoperative management of intra-abdominal hypertension and abdominal compartment syndrome: evolving concepts. Am Surgeon 2011; 77(Suppl 1): S34–41.
- De laet I, Malbrain ML. ICU management of the patient with intra-abdominal hypertension: what to do, when and to whom? Acta Clin Belg 2007; 62(Suppl 1): 190–199.
- Kimball EJ, Mone MC, Wolfe TR, et al. Reproducibility of bladder pressure measurements in critically ill patients. Intensive Care Med 2007; 33: 1195–1198.
 Malbrain ML, Cheatham M, Sugrue M, Ivatury R. The Ab-
- Malbrain ML, Cheatham M, Sugrue M, Ivatury R. The Abdominal Compartment Syndrome. In: O'Donnell JM, Nácul FE, eds. Surgical Intensive Care Medicine. Springer, New York, USA: 2010 Dp 607–627.
- Malbrain ML, Cheatham ML, Kirkpatrick A, et al. Results from the International Conference of Experts on Intra-abdominal

Hypertension and Abdominal Compartment Syndrome. I. Definitions. Intensive Care Med 2006; 32: 1722-1732

CYTOSORBENTS

Regain control in SIRS and SEPSIS. The CytoSorb Therapy goals: Controlled containment of the systemic inflammation. Štabilization of hemodynamics. Avoidance and limitation of organ failure. Modulation of the immune response. Cytosorb® is a unique extracorporeal therapy. Whole blood perfusion, easy to combine with other extracorporeal therapies such as renal replacement therapy, ECMO or cardiopulmonary bypass [1]. Quick and sustained reduction of excessive cytokine levels and removal of substances like myoglobin, bilirubin and free hemoglobin [2]. Excellent hemo- and biocompatibility [3]. Heparin- or citrate anticoagulation applicable. Easy-to-use and setup within minutes. imple to integrate into routine processes. Cytosorb® allows Stabilization of hemodynamics: Improves hemodynamics (macro- and micro-circulation) [2]. Significantly reduces need for catecholamines. Cytosorb® allows avoidance and limitation of organ failure. Positive effect on capillary leak syndrome. Stops and prevents cytokine- and mediator-induced organ injury [5,7]. Cytosorb® modulates the immune response. Effective reduction of excessive cytokine plasma concentrations [2]. Controlled containment of the overactive inflammatory immune response [4]. Decreased de novo synthesis of inflammatory mediators [5,6]. Re-targeting of the cellular immune response [4].

References:

- Mitzner SR et al. Blood Purif. 2013;35(4):314-5.
- Peng ZY et al. Crit Care Med. 2008 May;36(5):1573-7 2.
- Kellum JA et al. Crit Care Med. 2008 Jan;36(1):268-72
- Namas RA et al. Mol Med. 2012 Dec 20;18:1366-74 Peng ZY et al. Kidney Int. 2012 Feb;81(4):363-9 4
- 5. 6.
- Kellum JA et al. Crit Care Med. 2004 Mar;32(3):801-5
- Mikhova KM et al. J Thorac Cardiovasc Surg. 2013 Jan;145(1):215-24

DRAGER

The unique PulmoVista 500 "Making ventilation visible" A breakthrough for mechanical ventilation. Until now it has not been possible to determine the regional distribution of ventilation continuously at the bedside. Providing therapy which addresses different lung conditions has therefore been very challenging. That is where the PulmoVista® 500 comes into play: A new window to dynamic pulmonary monitoring becomes possible directly at the bedside, continuous and non-invasive imaging [1-5].

References:

- Adler A, Amato MB, Arnold JH, et al. Whither lung EIT: where are we, where do we want to go and what do we need to get there? Physiological Measurement 2012; 33: 679–694.
- Bellani G, Mauri T, Pesenti A. Imaging in acute lung injury and acute respiratory distress syndrome. Curr Opin Crit Care 2012;
- Grivans C, Lundin S, Stenqvist O, Lindgren S. Positive endexpiratory pressure-induced changes in end-expiratory lung volume measured by spirometry and electric impedance tomography. Acta Anaesthesiol Scand 2011; 55: 1068-1077
- Karsten J, Luepschen H, Grossherr M, et al. Effect of PEEP on regional ventilation during laparoscopic surgery monitored by electrical impedance tomography. Acta Anaesthesiol Scand 2011; 55: 878-886.
- Lundin S, Stenqvist O, Electrical impedance tomography: potentials and pitfalls. Curr Opin Crit Care 2012;18:35-41.

EDWARDS LIFESCENCES

Clarity through advanced hemodynamic monitoring for your moderate to high-risk surgery. A choice of hemodynamic monitoring options to meet your clinical needs. Deviations from hemodynamic stability increase with more invasive procedures and/or more severe clinical conditions. As a result, your hemodynamic monitoring needs and preferences may vary with the complexity of each procedure and patient. Edwards provides a range of monitoring options that can be used in Perioperative Goal-Directed Therapy (PGDT) protocols to hemodynamically optimize your moderate to high-risk

surgery patients. Each provides the clarity to make more informed decisions. Select your procedure; assess the patient risk factors and the chosen access. The procedures can either be cardiac, colo-rectal, gynecological, hepatobiliary, major general, orthopedic, trauma, upper GI, urological, or vascular. Patient risk factors can be previous severe cardio-respiratory illness, acute myocardial infarction, chronic obstructive pulmonary disease or stroke, late-stage vascular disease involving aorta, age >70 years, extensive surgery for carcinoma, acute abdominal catastrophe with hemodynamic instability, acute massive blood loss >8 units, septicemia, positive blood culture or septic focus, respiratory failure, acute renal failure, obese patients, diabetic patients, or pregnant women. If the patient is hemodynamically unstable chose for invasive monitoring with a PAC (Swan-Ganz catheter), that allows collection of CCO, RVEDV, RVEF, and SvO₂. If the patient has some major risk factors but is stable then choose for less invasive monitoring with an a-line and connect a FloTrac sensor for monitoring CO, SV, SVR, and SVV. If the patient has minor risk factors or does not have an a-line or PAC then chose for uninvasive monitoring with ccNexfin that allows to obtain cBP, CO, SV, SVR, and SVV. The Clear-SightTM system extends continuous hemodynamic monitoring to a broader patient population, including moderate to high-risk patients. By leveraging proven ccNexfinTM system technology, the ClearSight system provides clinicians clarity without the barriers of complexity or invasiveness. The ClearSight system is a simple, noninvasive approach to monitoring key hemodynamic parameters [1–7]:
• Stroke Volume (SV)

- Stroke Volume Variation (SVV)
- Cardiac Output (CO)
- Systemic Vascular Resistance (SVR)
- Continuous Blood Pressure (BP)

The ClearSight system quickly connects to the patient by wrapping an inflatable cuff around the finger, giving you continuous noninvasive hemodynamic information. Used as the standard for monitoring in space for decades, ccNexfin noninvasive technology (volume clamp, Physiocal) has been extensively validated against gold standard monitoring technologies.The ClearSight system enables you to expand advanced hemodynamic monitoring to your moderate to high-risk surgery patients — including elderly or obese patients — enabling you to make more informed decisions regarding volume administration.

- Penáz J. Photoelectric measurement of blood pressure, volume and flow in the finger. 1973; Dresden 1973. p. 104
- Wesseling KH, De Wit B, Van der Hoeven GMA, Van Goudoever J, Settels JJ. Physiocal, calibrating finger vascular physiology for Finapres. Homeostasis. 1995; 36: 67-82.
- Wesseling KH. A century of noninvasive arterial pressure measurement: from Marey to Penáz and Finapres. Homeostasis, 1995; 36: 2-3
- Martina JR, Westerhof BE, van Goudoever J, et al. Noninvasive continuous arterial blood pressure monitoring with Nexfin. Anesthesiology 2012; 116(5): 1092-1103
- Bogert LW, Wesseling KH, Schraa O, et al. Pulse contour cardiac output derived from non-invasive arterial pressure in cardiovascular disease. Anaesthesia 2010; 65(11): 1119-1125.
- Chen G, Meng L, Alexander B, et al. Comparison of noninvasive cardiac output measurements using the Nexfin monitoring device and the esophageal Doppler. J Clin Anesth. 2012; 24(4): 275-283
- Bubenek-Turconi SI, Craciun M, Miclea I, Perel A. Noninvasive Continuous Cardiac Output by the Nexfin Before and After Preload-Modifying Maneuvers: A Comparison with Intermittent Thermodilution Cardiac Output. Anesth Analg. 2013; 17(2):366-372

FRESENIUS KABI

Infusion Therapy: For infusion therapy, Fresenius Kabi offers products for fluid and blood volume replacement. Moreover, Fresenius Kabi's product portfolio includes a broad range of infusion technologies as well as disposables for the delivery of medication for all pharmaceuticals administered via the vein. The company also provides the transfusion technology blood banks and blood donation units use to produce blood products. Clinical Nutrition: Within Clinical Nutrition. Fresenius Kabi is one of the few companies worldwide to offer parenteral nutrition (administered intravenously) and enteral nutrition (administered as sip or tube feed via the gastrointestinal tract), as well as nutrition pumps and infusion disposables. Intravenously Administered Drugs: Fresenius Kabi offers a broad range of intravenously administered generic drugs across a wide array of therapeutic categories: oncology, anesthesia, analgesia and critical illness. For the administration of these products, the company provides the related medical devices.

MALTRON INTERNATIONAL LTD

The important role of BioScan 920-II a Bio-electrical Impedance (BIA) with FDSA+ technology for monitoring Fluid balance in Critically ill patients. The impact of positive fluid balance on morbidity and mortality has been well established. However, little is know about how to monitor fluid status and fluid overload. BioScan 920-II helps identify high risk patients quickly using its totally non-invasive, non-intrusive technology with important clinical relevancies providing additional information relating to Malnutrition status, Dry Weight, GFR and Body Composition assessment.

References:

- Manu LNG Malbrain, Johan Huygh, Joost Wauters et al. Bioimpedance Monitoring of Fluids Monitoring. ICU. Volume 14 - Issue 3 - Autumn 2014
- Cader RA, Gafor HA, Mohd R, Kong NC, Ibrahim S, Wan Hassan WH, Abdul Rahman WK et al. Assessment of fluid status in CAPD patients using the body composition monitor. J Clin Nurs. 2013 Mar 22(5-6):741—748
- Chen W, Guo LJ, Wang T et al. Extracellular water/intracellular water is a strong predictor of patient survival in incident peritoneal dialysis patients. Blood Purif 2007, 25:260-266.
- S Robert, B J Zarowitz, R Hyzy, M Eichenhorn, E L Peterson, J Popovich Jr et al. Bioelectrical impedance assessment of nutritional status in critically ill patients. Am J Clin Nutr June 1993 Vol. 57 no. 6 840–844 Shime N, Ashida H, Chihara E, Kageyama K, Katoh Y, Yamag-
- ishi M, Tanaka Y. et al. Bioimpedance Monitoring of Fluids Crit Care Med. March 2002 – Volume 30 – Issue 3 – pp 518–520.
- Digant Gupta, Carolyn A Lammersfeld, Pankaj G Vashi, Jessica King, Sadie L Dahlk, James F Grutsch and Christopher G Lis et al. Bioelectrical impedance phase angle in clinical practice implications for prognosis in stage IIIB and IV non-small cell lung cancer. BMC Cancer 2009, 9:37.

The EIRUS™ - continuous glucose and lactate monitoring is a unique, microdialysis-based platform specially designed for the needs of critical care. Its multipurpose central venous catheter provides normal venous access (Triple Lumen Catheter) as well as metabolic monitoring, reducing the need for additional lines. In addition to truly continuous glucose measurement and display, EIRUS also offers continuous monitoring of lactate, enabling early risk assessment, diagnosis and therapy, which can potentially improve outcomes. As you might also expect of a CGM system adapted for critical control of the cal care, EIRUS is highly accurate, compact, and easy to learn and use. In short, EIRUS is raising the bar for what continuous glucose management could be. So you can set the standard for what it should be.

References:

- Capes SE et al. Lancet 2000;355:773-8. 1.
- Capes SE et al. Stroke 2001;32:2426-32 2.
- Fahy BG et al. Crit Care Med 2009;37:1769-76.
- Van den Berghe G et al. N Engl J Med 2001;345:1359-67. 4.
- Finfer S et al. N Engl J Med 2009;360:1283–97.
 De La Rosa G Del C et al. Crit Care 2008;12:R120. 5. 6.
- Bakker J et al. Annals of Intensive Care 2013;3(1):12.
- Pölönen P et al. Anesth Analg 2000;90:1052-9. Jansen TC et al. Am J Respir Crit Care Med 2010;182:752-61. 9
- 10. Puskarich MA et al. Chest 2013; 143(6):1548-53.
- Aragon D. Am J Crit Care. 2006 Jul;15(4):370-7 11.
- Kalfon P et al. Poster presented as part of the International 12. Symposium on Intensive Care and Emergency Medicine (ISICEM), Brussels, 20-23 March, 2012.
- Divander MB et al. Poster presented at the 8th World Feder 13. ation of Critical Care Nurses (WfCCN), Sibenik, 12-15 April,
- Möller F et al. J Diabetes Sci Technol. 2011 5(5):1099–107.

- Blixt C et al. Poster presented as part of the Annual Congress of the European Society of Intensive Care Medicine
- (ESICM), Berlin 1–5 October, 2011. Kalfon P et al. Poster presented as part of the International Hospital Diabetes Meeting, Barcelona, 17-19 Nov, 2011.
- Rooyackers O et al. Acta Anaesthesiol Scand. 2013 17. Feb;57(2):214-19.
- 18. Rooyackers O et al. Acta Anaesthesiol Scand. 2010 Aug;54(7):841–7. Schierenbeck F et al. Diabetes Technol Ther. 2013
- 19 Jan;15(1):26-31
- Schierenbeck F et al. Manuscript in preparation. 20.

Masimo is world leader in Pulse Oximetry. Now there is the power of Masimo SET®with a smart mobile device. Clinically proven results. Features industry-leading Masimo SET® Measure-through Motion and Low Perfusion™ pulse oximetry - SpO2, pulse rate (PR), and perfusion index (PI). Validated by more than 100 independent and objective studies providing clinicians with unmatched sensitivity and specificity to make critical patient care decisions. Supports assessment of adult and pediatric patients. Flexible and easy-to-use. Intuitive operation with a free, downloadable mobile app for iOS® and Android™ OS. Compact design for portability. Use of Masimo reusable and/or adhesive sensors with the M-LNCS™ connector. Spot-checking capability. Integrated help menu and Quick Start Guide. Real-time display of pleth waveform with Signal IQ® for low measurement confidence. Integrated communication of measurement results. Share measurement and trend data via smart mobile device email application. Facilitates remote assessment and management of patients Masimo's technology board innovation has continued with reduced size and power consumption, allowing Masimo SET® performance to be integrated in the "board in cable" iSpO2 Rx which is externally connected to the smart mobile device.

MTT

Medical Technology Transfer bv (MTT bv)

ALung An innovative, dialysis-like alternative or supplement to mechanical ventilation. The Hemolung RAS (Respiratory Assist System) is the world's first fully-integrated system for Respiratory Dialysis, a simple approach to extracorporeal CO2 removal (ECCO2R). The system removes carbon dioxide and delivers oxygen directly to the blood, allowing the pa-tient's lungs to rest and heal. Applications of the Hemolung RAS include avoidance of intubation and facilitation of protective ventilation. The Hemolung RAS was designed from the ground up with one thing in mind: simple, effective extracorporeal CO2 removal. Your Solution for All Stages of Respiratory Failure. Respiratory Dialysis is a simple, minimally invasive approach to extracorporeal CO2 removal for patients with acute hypercapnic respiratory failure. The Hemolung RAS is specifically designed to provide Respiratory Dialysis. The system can remove 30% - 50% of metabolically produced CO2, allowing its use in patients who are either failing non-invasive ventilation (e.g. COPD exacerbation) or who are already invasively ventilated. In either case, the Hemolung RAS results in the correction of acidosis and permits the de-escalation of ventilator support, allowing the lungs to rest and heal.

The CardioQ-ODM+ is the world's first fluid management and cardiac output monitoring system to measure both flow and pressure directly. An exciting new upgrade to the proven Doppler technology, the monitor combines the proven Car-dioQ-ODM Doppler measurement of blood flow with Pulse Pressure Waveform Analysis (PPWA). This provides users with a proven, highly sensitive "Flow Monitoring Mode" to guide intervention and the simplest calibration of a "Pressure Monitoring Mode" for extended continuous monitoring yet devised. The CardioQ-ODM+ has a Pulse Pressure Waveform (PPWA) mode which is quickly and easily calibrated from the Doppler signal and provides continuous monitoring in post-operative and medical patients in critical care. In sedated patients, the PPWA algorithm can be recalibrated at any time from the Doppler waveform.

Previous cardiac output monitors have either been ideal intervention devices, fast precise responsive flow based measurement but non-continuous or less responsive pressure based continuous monitors, requiring complex calibration

and frequent recalibration to be effective. Designed for intensive care and high risk surgical applications, the CardioQ-ODM+ brings together simple, minimally invasive oesophageal Doppler monitoring (ODM) flow based technology with a proven PPWA system. The CardioQ-ODM+ provides an unparalleled range of functional haemodynamic parameters. Patients can be continuously monitored for extended periods between intervention and calibration episodes. The CardioQ-ODM+ is designed to allow clinicians to guide fluid and drug administration during critical care. The monitor is highly responsive in tracking changes in Stroke Volume and Cardiac Output during intervention. Only oesophageal Doppler has been shown to have the precision to drive the 10% Stroke Volume Optimisation algorithm, widely acknowledged as the basis for Intraoperative Fluid Management (IOFM)

References:

- full guidelines available are http://guidance.nice.org.uk/MTG3
- Mythen MG, Webb AR. Perioperative plasma volume expansion reduces the incidence of gut mucosal hypoperfusion during cardiac surgery. Arch Surg 1995; 130: 423-9
- Sinclair S, James S, Singer M. Intraoperative intravascular volume optimisation and length of hospital stay after repair of proximal femoral fracture: randomised controlled trial. Br Med J 1997; 315: 909-12
- Conway DH, Mayall R, Abdul-Latif MS, Gilligan S, Tackaberry C. Randomised controlled trial investigating the influence of intravenous fluid titration using oesophageal Doppler monitoring during bowel surgery. Anaesth 2002; 57: 845-9
- Gan TJ, Soppitt A, Maroof M, El-Moalem H, Robertson KM, Moretti E, Dwane P, Glass PSA. Goal-directed intraoperative fluid administration reduces length of hospital stay after major surgery. Anesthesiol 2002; 97: 820-6
- Venn R, Steele A, Richardson P, Poloniecki J, Grounds M, Newman P. Randomized controlled trial to investigate influence off the fluid challenge on duration of hospital stay and perioperative morbidity in patients with hip fractures. Br J Anaesth 2002; 88(1): 65-71
- Wakeling HG, McFall MR, Jenkins CS, Woods WGA, Miles WFA, Barclay GR, Fleming SC. Intraoperative oesophageal Doppler guided fluid management shortens postoperative hospital stay after major bowel surgery. Br J Anaesth 2005; 95(5): 634-642

PULSION

PiCCO2 advanced hemodynamic monitoring technology: get the complete picture. The PiCCO Technology provides the complete haemodynamic picture through the measurement of cardiac output as well as its determinants: preload volume, afterload and cardiac contractility. Furthermore the PiCCO provides quantification of pulmonary oedema. This complete advanced haemodynamic monitoring approach enables the physician to set-up early goal directed therapy more easily, more adequately and more appropriately. Furthermore the valuable information that the PiCCO-technology provides is of great assistance in solving therapeutic conflicts, a challenge that is encountered regularly in the complex intensive care setting [1--4].

References:

Bein B, Worthmann F, Tonner PH, Paris A, Stenfarth M, Hedderich J, Scholz J. Comparison of esophageal Doppler, pulse contour analysis, and real-time pulmonary artery thermodilution for the continuous measurement of cardiac output. J Cardiothorac Vasc Anesth 2004; 18 (2): 185-189.

- Monnet X, Anguel N, Osman D, Hamzaoui O, Richard C, Teboul JL. Assessing pulmonary permeability by transpulmonary thermodilution allows differentiation of hydrostatic pulmonary edema from ALI/ARDS. Intensive Care Med 2007; 33 (3): 448-453
- Sakka SG, Reuter DA, Perel A. The transpulmonary thermodilution technique. J Clin Monit Comput 2012; 26: 347-353
- Tagami T, Kushimoto S, Yamamoto Y, Atsumi T, Tosa R, Matsuda K, Oyama R, Kaeaguchi T, Masuno T, Hirama H, Yokota H. Validation of extravascular lung water measurement by single transpulmonary thermodilution: human autopsy study. Crit Care 2010, 14: R162

FUJIFILM SONOSITE

X-Porte®, the world's first ultrasound kiosk – one look and the difference is clear! Introducing a new chapter in ultrasound visualization technology. Extreme Definition Imaging (XDI): Challenging unwanted phantom echoes from side-lobe beams. Onboard Education: Watch 3D learning animations concurrently with live scans for real-time comparisons and guidance. Fully customizable: Multi-gesture touch-screen interface. Sealed to facilitate cleaning and infection control. Industry-leading five-year warranty. X-Porte® delivers a type of image clarity never before seen in point-of-care ultrasound systems. Learn more today by downloading the X-Porte® app. Or better still, request a démonstration to experience X-Porte® yourself. Email nicolas.assumani@sono-site.com www.sonosite.co.uk/products/x-porte

References:

- Rocha, R. (2014, April 9). The Latest on Ultrasound Use. Retrieved November 1, 2014.
- Kohanteb, A., Mandavia, D. & Seif D. (2014). Rapid Bedside Diagnosis of Pyomyositis with Ultrasound-Guided Needle Aspiration. International Journal of Diagnostic Imaging, 2, 1, p. 24-28.

Oral and Poster Sessions

The Oral and Poster Sessions will take place in Room Belle Epoque and in Room Lijn on Friday ¹ 14:30—15:10 and on Saturday November 27 November 28th 13:00–13:40. There will be no physical posters. A panel of 6 international judges will score the presentations. Each presenter will prepare a Powerpoint presentation of maximum 10 slides for Oral (8 minutes presentation time followed by 2 minutes discussion) or 5 slides for Poster (5 minutes presentation time followed by 1 minute discussion). All oral and poster presenters must be present during the whole session and the award ceremony. We invite all participants to attend the abstract presentation sessions for interaction and discussion. Aggregate with the results and prize awards on November 28th at 17:00 PM at the end of the meeting in Room Belle Epoque. A detailed program of the oral and poster sessions in listed in the Final Program section.