



CONSENSUS CONFERENCE 2020

VENICE, ITALY

JANUARY 31, 2020

www.ilts.org

PROGRAM



DCD, LIVER PRESERVATION & MACHINE PERFUSION

EDUCATIONAL GOALS

- DCD livers have been seen to be an important additional source of organs for transplantation; nonetheless, they carry additional risk relative to standard DBD grafts. The first goal of this conference is to discuss both the opportunities and challenges of DCD liver transplantation.
- Machine perfusion is a rising technique for ex situ preservation of liver allografts to help improve their quality and assess and even recover grafts that were previously discarded. The second goal of this conference is to evaluate the use and outcomes of the current machine perfusion techniques. We will also focus on the design of future clinical trials in liver perfusion.

LEARNING OBJECTIVES

DCD Liver Transplantation

1. Understand the importance of the course and duration of donor warm ischemia and relevant measures of significant liver hypoperfusion (i.e., functional warm ischemia).
2. Understand relevant donor and recipient risk factors in DCD liver transplantation and matching strategies aimed at achieved optimal post-transplantation outcomes.
3. Understand current definitions used for early allograft dysfunction and their relevance and applicability in DCD liver transplantation.

4. Understand key complications following DCD liver transplantation (e.g., primary non-function, ischemic cholangiopathy, acute kidney injury) and common and acceptable rates for each.
5. Understand how DCD regulatory and retrieval practices vary between different countries and standards for practices according to different legislative and ethical constructs.

Liver Perfusion

6. Understand the most relevant perfusion devices and techniques that are currently in use or under investigation, including clinical evidence that has been published to date and with particular focus on application and outcomes in DCD livers.
7. Understand the potential and most relevant markers for viability testing during liver perfusion.
8. Understand how future clinical trials in liver perfusion should be designed, with particular focus on relevant clinical endpoints and how different techniques of liver perfusion should be compared.



**CONSENSUS
CONFERENCE 2020**

VENICE, ITALY
JANUARY 31, 2020



DCD, LIVER PRESERVATION & MACHINE PERFUSION

07:30 – 08:30 Breakfast

08:30 – 12:20 Consensus Conference Lectures

08:30 – 08:50 Introduction

Amelia Hessheimer, MD *Hospital Clínic Barcelona, Spain*

Marit Kalisvaart, MD, PhD *University Hospital Zurich, Zurich, Switzerland*

08:30 – 10:10 DCD Liver Transplantation

Chairs:

Paolo Muiesan, MD *The Queen Elizabeth Hospital, Birmingham, UK*

Robert Porte, MD, PhD *University Medical Center Groningen, Groningen, The Netherlands*

08:30 – 08:50 Donor warm ischemia time (DWIT)

Peter L. Abt, MD *Hospital of the University of Pennsylvania, Philadelphia, PA, USA*

08:50 – 09:10 Donor and recipient selection in DCD

Kristopher P. Croome, MD *Mayo Clinic, Jacksonville, FL, USA*

09:10 – 09:30 Early allograft dysfunction and complications

Constantino Fondevilla, MD, PhD *Hospital Clínic, Barcelona, Spain*

09:30 – 09:50 Predicting outcomes and graft assessment in DCD

Andrea Schlegel, MD *The Queen Elizabeth Hospital, Birmingham, UK*

09:50 – 10:10 Regulations and procurement surgery in DCD

Diethard Monbaliu, MD, PhD *UZ Leuven, Leuven, Belgium*

10:10 – 10:30 Coffee Break

10:30 – 12:20 Machine Perfusion and Clinical Trials Session

Chairs:

Philipp Dutkowski, MD *University Hospital Zurich, Zurich, Switzerland*

Constantino Fondevilla, MD, PhD *Hospital Clínic, Barcelona, Spain*

10:30 – 11:00 Overview of machine liver perfusion technology: which grafts require machine perfusion?

Cristiano Quintini, MD *Cleveland Clinic, Cleveland, OH, USA*

11:00 – 11:20 Normothermic regional perfusion

Gabriel Oniscu, MD *Royal Infirmary of Edinburgh, Edinburgh, UK*



DCD, LIVER PRESERVATION & MACHINE PERFUSION

- 11:20 – 11:40 Hypothermic machine perfusion
 Philipp Dutkowski, MD *University Hospital Zurich, Zurich, Switzerland*
- 11:40 – 12:00 Normothermic machine perfusion
 Christopher J. E. Watson, MD *Cambridge University Hospitals, Cambridge, UK*
- 12:00 – 12:20 Special considerations and pitfalls in clinical trials using machine perfusion
 Paulo Martins, MD, PhD *The University of Massachusetts Medical School, Worcester, MA, USA*
- 12:20 – 12:25 ILTS Update
 Claus Niemann, MD *University of California San Francisco, San Francisco, CA, USA*
- 12:20 – 13:30 Lunch Break

13:45 – 16:15 Afternoon Working Groups

- 13:30 – 13:45 Introduction
 Federica Dondero, MD *Beaujon Hospital, Paris, France*
 Paulo Martins, MD, PhD *The University of Massachusetts Medical School, Worcester, MA, USA*

DCD Liver Transplantation

Working Group 1: Donor warm ischemia time (DWIT)

Working Group Leaders:

Marit Kalisvaart, MD, PhD *University Hospital Zurich, Zurich, Switzerland*
 Peter L. Abt, MD *Hospital of the University of Pennsylvania, Philadelphia, PA, USA*

Working Group Members:

Kristopher P. Croome, MD *Mayo Clinic Jacksonville, FL, USA*
 Roberto Hernandez-Alejandro, MD *University of Rochester Medical Center, Rochester, NY, USA*
 Jacques Pirenne, MD, MSc, PhD *UZ Gasthuisberg, Leuven, Belgium*
 Miriam Cortés Cerisuelo, MD, PhD *King's College Hospital, London, UK*
 Eduardo Miñambres, MD, PhD *Hospital Universitario Marques de Valdecilla, Santander, Spain*

- 1.1. Defining definitions of (functional) DWIT
- 1.2. Importance of SpO2 and hemodynamic parameters
- 1.3. Acceptable thresholds for DWIT and extraction time to proceed with transplantation



**CONSENSUS
CONFERENCE 2020**

VENICE, ITALY
JANUARY 31, 2020



DCD, LIVER PRESERVATION & MACHINE PERFUSION

Working Group 2: Donor and recipient selection and risk prediction in DCD

Working Group Leaders:

Andrea Schlegel, MD *The Queen Elizabeth Hospital, Birmingham, UK*

Burcin Taner, MD *Mayo Clinic, Jacksonville, FL, USA*

Working Group Members:

Juan Carlos Garcia-Valdecasas, MD, PhD *Hospital Clinic, University of Barcelona, Barcelona, Spain*

Luciano Riccardo de Carlis, MD *Chirurgia Generale e dei Trapianti Ospedale Niguarda Ca Granda, Milan Italy*

David Foley, MD *University of Wisconsin School of Medicine and Public Health, Madison, WI, USA*

Nigel Heaton, MB, BS, FRCS *King's College Hospital, London, UK*

Eric Savier, MD *Université Pierre et Marie Curie, Paris France*

- 2.1. Defining thresholds for donor age, donor body mass index (BMI) and cold ischemia time
- 2.2. Defining thresholds for recipient age, BMI and MELD Score
- 2.3. Should we use DCD livers for any recipient disease and condition?
- 2.4. Summary and discussion from published risk scores in DCD

Working Group 3: Early allograft dysfunction and complications

Working Group Leaders:

Cristiano Quintini, MD *Cleveland Clinic, Cleveland, OH, USA*

Constantino Fondevila, MD, PhD *Hospital Clinic, Barcelona, Spain*

Working Group Members:

Pierre-Alain Clavien, MD, PhD *FACS University Hospital Zurich, Zurich Switzerland*

Mikel Gastaca, MD *Cruces University Hospital, Bilbao Spain*

Jeroen de Jonge, MD, PhD *Erasmus University Rotterdam, Rotterdam, Netherlands*

Olivier Detry, MD, PhD *University of Liege, Liege, Belgium*

Paolo Muiesan, MD *Queen Elizabeth Hospital, Birmingham UK*

- 3.1. Discussion of the current EAD definition and development of new models (EAD, L-Graft, EASE score)?
- 3.2 Define acceptable complication rates after DCD liver transplantation
- 3.3 Potential strategies to reduce complication rates
- 3.4 Post-transplant follow-up for ischemic cholangiopathy



**CONSENSUS
CONFERENCE 2020**

VENICE, ITALY
JANUARY 31, 2020



DCD, LIVER PRESERVATION & MACHINE PERFUSION

Working Group 4: Regulations and procurement surgery in DCD

Working Group Leaders:

Amelia Hessheimer, MD *Hospital Clínic, Barcelona, Spain*

Wojciech Polak, MD, PhD *Erasmus MC, Rotterdam, The Netherlands*

Working Group Members:

Diethard Monbaliu, MD, PhD *UZ Leuven, Leuven, Belgium*

Gabriel Oniscu, MD *Royal Infirmary of Edinburgh, Edinburgh, UK*

Federica Dondero Pozzo, MD *Beaujon Hospital, Paris, France*

Daniel Maluf, MD *UT/Methodist Transplant Institute Memphis, TX, USA*

Corinne Antoine, MD, MSc *Agence de la biomédecine, Saint Denis, France*

- 4.1. The impact of ethical regulations on DCD liver donation and procurement in different countries
- 4.2. Define the standard liver retrieval techniques today and relevant technical considerations
- 4.3. Options for normothermic regional perfusion (NRP) in DCD
- 4.4. DCD after euthanasia

Machine Perfusion

Working Group 5: Role and types of machine perfusion

Working Group Leaders:

Robert Porte, MD, PhD *University Medical Center Groningen, Groningen, The Netherlands*

Philipp Dutkowski, MD *University Hospital Zurich, Zurich, Switzerland*

Working Group Members:

Christopher J. E. Watson, MD *Cambridge University Hospitals, Cambridge, UK*

James Guarrera, MD, FACS *New Jersey Medical School, Newark, NJ, USA*

Xiaoshun He, MD, PhD *Organ Transplant Center, The First Affiliated Hospital, Sun Yat-sen University, Guangzhou, China*

David Nasralla, MA, MRCS *University of Oxford, Oxford, UK*

- 5.1. What are the most relevant perfusion devices and techniques that are currently explored?
- 5.2. What is the clinical evidence of different perfusion techniques (NRP, NMP and HMP) in DCD liver transplantation?
- 5.3. What are relevant markers used and current evidence for viability testing during the different types (NRP, NMP and HMP) of machine perfusion?



DCD, LIVER PRESERVATION & MACHINE PERFUSION

Working Group 6: Clinical trial design

Working Group Leaders:

Michael Rizzari, MD *Henry Ford Transplant Institute, Detroit, MI, USA*

Paulo Martins, MD, PhD *The University of Massachusetts Medical School, Worcester, MA, USA*

Working Group Members:

Rajiv Jalan, MD, PhD, MBBS, FRCPE, FRCP, FAASZD *University College London, London, UK*

Peter Friend, MD, FRCS *Oxford Transplant Centre, Oxford, UK*

Ina Jochmans, MD, PhD *UZ Leuven, Leuven, Belgium*

Davide Ghinolfi, MD, PhD *Universita di Pisa, Pisa, Italy*

6.1. Which preservation techniques should be compared in the next randomized trials?

6.2. What are clinically relevant trial endpoints?

6.3 Which grafts should be included?

6.4. Update on clinical trials

16:15 – 16:30

Coffee Break

16:30–19:00 Working Group Presentations

16:30 – 18:30

Working group presentations with summarizing statements

18:30 – 19:00

Consensus summary



DCD, LIVER PRESERVATION & MACHINE PERFUSION

This consensus meeting was prepared by the [ILTS Special Interest Group DCD, Liver Preservation & Machine Perfusion](#).

Topic Coordinators:

- Amelia J. Hessheimer, MD *Hospital Clínic, Barcelona, Spain*
- Marit Kalisvaart, MD, PhD *University Hospital Zurich, Zurich, Switzerland*

Steering Committee Members:

- Federica Dondero Pozzo, MD *Beaujon Hospital, Paris, France*
- Philipp Dutkowski, MD *University Hospital Zurich, Zurich, Switzerland*
- Constantino Fondevila, MD, PhD *Hospital Clínic, Barcelona, Spain*
- Paulo Martins, MD, PhD *University of Massachusetts, Massachusetts, USA*
- Paolo Muiesan, MD *Queen Elizabeth Hospital, Birmingham, UK*
- Wojciech Polak, MD, PhD *Erasmus Medical Center Rotterdam, Rotterdam, The Netherlands*
- Robert Porte, MD, PhD *University Medical Center, Groningen, The Netherlands*
- Cristiano Quintini, MD *Cleveland Clinic, Cleveland, USA*

ILTS President 2019 – 2020:

- Claus Niemann, MD *University of California San Francisco, San Francisco, CA, USA*



DCD, LIVER PRESERVATION & MACHINE PERFUSION



EACCME
European Accreditation Council
for Continuing Medical Education

CONTINUING MEDICAL EDUCATION (CME) CREDITS

The **ILTS 2020 Consensus Conference on DCD, Liver Preservation & Machine Perfusion, Venice, Italy, 31/01/2020-31/01/2020** has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) with **8** European CME credits (ECMEC®s). Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity.

Through an agreement between the Union Européenne des Médecins Spécialistes and the American Medical Association, physicians may convert EACCME® credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME® credit to AMA credit can be found at www.ama-assn.org/education/earn-credit-participation-international-activities.

Live educational activities, occurring outside of Canada, recognised by the UEMS-EACCME® for ECMEC®s are deemed to be Accredited Group Learning Activities (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada.



ILTS Consensus Conference: DCD, Liver Preservation & Machine Perfusion is now compliant with the MedTech Europe Code of Ethical Business Practice. Click [here](#) for details.



CONSENSUS
CONFERENCE **2020**

VENICE, ITALY
JANUARY 31, 2020



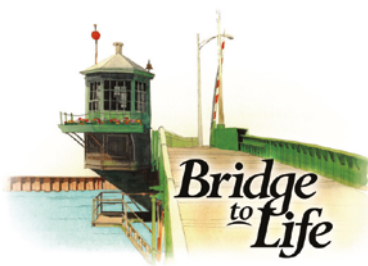
DCD, LIVER PRESERVATION & MACHINE PERFUSION

ILTS ACKNOWLEDGES THE GENEROUS SUPPORT OF

PLATINUM SPONSOR



GOLD SPONSOR



SILVER SPONSOR





**CONSENSUS
CONFERENCE 2020**

VENICE, ITALY
JANUARY 31, 2020



DCD, LIVER PRESERVATION & MACHINE PERFUSION

ILTS Headquarters

K.I.T. Group GmbH
Association & Conference Management
Kurfürstendamm 71
10709 Berlin, Germany
Phone: +49 (0) 30 24603 349
Fax: +49 (0) 30 24603 200
E-mail: ilts@ilts.org

Conference Venue

San Servolo Residential and Study Centre
Isola di San Servolo n.1
30124 Venice, Italy

<https://sanservolo.servizimetropolitani.ve.it/en/congresses/>

Phone: + 39 041 2765001

Fax: +39 041 276 5402

E-mail: congressi@servizimetropolitani.ve.it

Registration

Please register [here](#) by January 30, 2020

23:59 CET (GMT+2)

Should you require further assistance please don't
hesitate to contact the ILTS Registration Department:

E-Mail: ilts-consensusregistration@kit-group.org

Hotline: +49 (0) 30 24603 410

Accommodation at Conference Venue Hotel

All participants are responsible for their own accommodation.
Please contact the hotel and let them know that you wish to
book a room out of the contingent. To book a room, please fill
in the [Accommodation Form](#) and sent it to the following E-mail:
reception@servizimetropolitani.ve.it

Reservation hotline: + 39 041 2765001

Alternative Accommodation

Please visit the official Venice Hotel website for further
choices: www.venicehotel.com