



2021 ILTS-SETH CONSENSUS CONFERENCE

Non-hepatic Cancer and Liver Transplantation: Shifting the Paradigm. Dropping the Cancer Stigma.

INTRODUCTION

A significant and growing number of patients in need of liver transplantation (LT) have a history of cancer. Management of these patients is challenging, as history of a pre-transplant malignancy (PTM) in remission has long been considered a relative contraindication due to the concern that immunosuppression required to prevent graft rejection would allow the growth of dormant malignant cells in these patients. Recommendations for listing transplant candidates with PTM were based primarily on the recurrence rates in kidney transplant recipients derived from the Israel Penn International Transplant Tumour Registry (IPITTR, previously known as the Cincinnati Transplant Tumour Registry), a voluntary database of transplant recipients with malignancies. Data from the IPITTR indicated that the recurrence rate of PTM was 21% or a rate of 5.6 cancer recurrences per 100 person/year of follow-up, and that most recurrences (53%) occurred in those transplanted within two years of a cancer diagnosis or treatment. However, these studies were done decades ago, and several more recent population-based cohort studies and systemic reviews with meta-analyses have reported markedly lower rates of recurrence in recipients with PTM.

Currently, guidelines for the selection of liver transplant candidates generally recommend minimum wait-times before

transplantation for patients with PTM that range from no wait-time for some in situ malignancies to more than five years for melanoma, bladder, colorectal, and breast cancer, provided that the neoplasms have been eradicated and that the oncologic expected survival is superior to the survival expected after LT. Unfortunately, most of the guidelines are based on data from the kidney transplantation arena and do not take substantial recent improvements in cancer therapy (including immunotherapy) into consideration.

In addition, as older donors are increasingly utilized, the risk of non-liver cancer in some of these donors, either in the past medical history or found incidentally after donation has also increased, and it must be established how to manage recipients transplanted with these organs.

Finally, de novo cancer is one of the most frequent causes of death in liver transplant recipients with studies showing an association between cumulated immunosuppression and risk of cancer.

In essence, the increasing number of liver transplant candidates with a history of cancer, and that of recipients who develop cancer post-transplantation, together with the improvement in oncology therapy, calls for a more thorough evaluation of the risk of post-transplant cancer development as well as management of these patients.

ILTS President

Claus Niemann, MD
UCSF, San Francisco, USA

ILTS President-Elect 2020-21

Marina Berenguer, MD
La Fe University
Hospital, Valencia,
Spain

ILTS President-Elect 2021-22

Mohamed Rela, MS,
FRCS, DSc
Dr. Rela Institute
and Medical Center,
Chennai, India

ILTS-SETH 2021 Consensus Conference Topic Coordinators:

Kymberly Watt, MD
Mayo Clinic, Rochester, USA

Jordi Colmenero, MD, PhD
Hospital Clinic Barcelona,
Barcelona, Spain

SETH President

José Antonio Pons,
MD, PhD
Virgen de la Arrixaca
University Hospital,
Murcia, Spain

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In this Consensus Conference, we will discuss:

- How to evaluate the presence of malignancies in liver transplant candidates;
- The risk and post-LT surveillance for those with a history of pre-transplant malignancy in remission;
- Who is safe to donate a liver with a history of cancer (deceased or live donor/cancer detected during donor work-up) and what could be done if the recipient develops a malignancy transmitted from a donor;
- Factors that increase the risk of post-transplant non-hepatic malignancies and how to manage immunosuppression and onco-specific therapies in these patients;
- Whether surveillance is cost-beneficial in high-risk individuals;
- Whether the data applies to pediatrics.

LEARNING OBJECTIVES

1. Understand the gap between current practice and future transplant-related oncology.
2. Update selection criteria and prediction models in candidates with a history of prior malignancy in remission.
3. Identify when it is safe to donate a liver from a candidate with a history of cancer or with cancer detected during the transplant work-up.
4. Identify novel biological, chemotherapeutic, radiological, and immunotherapeutic approaches for patients with de novo cancer developing after liver transplantation.

EXPECTED EDUCATIONAL OUTCOMES

The participants will be able to review and discuss research regarding non-hepatic malignancy in the candidate, the donor or the recipient, including selection criteria/indications, prognostic models, surveillance strategies, novel therapies and management. The participants will gain insight into innovations that lead to improvement in the field of liver transplantation in candidates or donors with a history of malignancy, and in recipients with de novo cancer, both in adult and pediatric populations.

TARGET AUDIENCE

- Surgeons
- Hepatologists
- Pathologists
- Radiologists
- Oncologists
- Scientists
- Nurses



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JANUARY 28-30, 2021

2021 ILTS-SETH CONSENSUS CONFERENCE

Non-hepatic Cancer and Liver Transplantation: Shifting the Paradigm. Dropping the Cancer Stigma.

Scientific Program | Thursday, January 28, 2021

13:00 - 18:10 Consensus Conference Lectures

(Open to all participants)

13:00 - 13:10

Introduction

José Antonio Pons, MD, PhD *Virgen de la Arrixaca University Hospital, Murcia, Spain*

13:10 - 14:40

General Concepts

Chairs:

Marina Berenguer, MD *La Fe University Hospital, Valencia, Spain*

José Antonio Pons, MD, PhD *Virgen de la Arrixaca University Hospital, Murcia, Spain*

13:10 - 13:25

Liver transplantation outcomes and current candidates profile

Nazia Selzner, MD, PhD *University of Toronto, Toronto, Canada*

13:25 - 13:40

Outlining the current approach to non-hepatic cancer in LT

John Roberts, MD *UCSF, San Francisco, USA*

13:40 - 13:55

Role of immunosuppression in cancer

Manuel Rodríguez-Perálvarez, MD, PhD *Reina Sofia University Hospital, Cordoba, Spain*

13:55 - 14:10

New anti-cancer therapies: Beyond the conventional multidisciplinary cancer care

Milind Javle, MD *University of Texas MD Anderson Cancer Center, Houston, USA*

14:10 - 14:40

Q&A

14:40 - 14:55

Break

14:55 - 16:10

Pre-transplant Considerations: Work-up for Recipient and Donor Candidates

Chairs:

Itxarone Bilbao, MD *Vall d'Hebron University Hospital, Barcelona, Spain*

Mohamed Rela, MS, FRCS, DSc *Dr. Rela Institute and Medical Center, Chennai, India*

14:55 - 15:10

How to manage LT candidates with a history of cancer/newly diagnosed cancer during pre-transplant work-up?

Sergio A. Acuna, MD, PhD *University of Toronto, Toronto, Canada*

15:10 - 15:25

How to proceed with deceased donors with a history of cancer/cancer-like lesions found at the time of procurement?

Beatriz Domínguez-Gil, MD, PhD *National Transplant Organization, Madrid, Spain*

15:25 - 15:40

How to proceed with living donors with a history of cancer or precancerous lesions/early-stage cancer found at the time of evaluation?

Dong-Hwan Jung, MD, PhD *Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea*

15:40 - 16:10

Q&A

16:10 - 16:25

Break



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16:25 - 17:55

Post-transplant Considerations: De Novo Malignancies in LT Recipients

Chairs:

Gonzalo Crespo, MD *Hospital Clinic de Barcelona, Barcelona, Spain*

Mark Ghobrial, MD, PhD, FRCS *Houston Methodist Hospital, Houston, USA*

16:25 - 16:40

Incidence and risk factors

Kymberly Watt, MD *Mayo Clinic, Rochester, USA*

16:40 - 16:55

Screening strategies after liver transplantation

José Ignacio Herrero, MD *University Clinic of Navarra, Pamplona, Spain*

16:55 - 17:10

Treatment for solid tumors

Gonzalo Sapisochin, MD *UHN - Toronto General Hospital, Toronto, Canada*

17:10 - 17:25

Treatment for post-transplant lymphoproliferative disorders (PTLD)

Dok Hyun Yoon, MD *Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea*

17:25 - 17:55

Q&A

17:55 - 18:10

Presidential address

Claus Niemann, MD *UCSF, San Francisco, USA*



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Scientific Program | Friday, January 29, 2021

13:00 - 16:30 Afternoon Working Groups

(Working Group participation is limited to 30 pre-registered participants per group. Final selection will be made by the Topic Coordinators)

13:00 - 13:15

Introduction

Topic coordinators:

Jordi Colmenero, MD, PhD *Hospital Clinic Barcelona, Barcelona, Spain*

Kymerly Watt, MD *Mayo Clinic, Rochester, USA*

Working Group 1: Non-hepatic Cancer in LT Candidates

Working Group Coordinators:

Magdalena Salcedo, MD, PhD *Gregorio Marañón General University Hospital, Madrid, Spain*

Pål-Dag Line, MD, PhD *Rikshospitalet, Oslo, Norway*

Working Group Members:

Milind Javle, MD *University of Texas MD Anderson Cancer Center, Houston, USA*

María Traperó, MD, PhD *Autonomous University of Madrid, Madrid, Spain*

Francisco Javier Bustamante, MD *Cruces University Hospital, Bilbao, Spain*

Carmen Vinaixa, MD *La Fe University Hospital, Valencia, Spain*

Paolo de Simone, MD *University of Pisa Medical School Hospital, Pisa, Italy*

1.1. Evaluation of candidates. Timing to transplantation (tumor staging, treatments...)

1.2. Immunotherapy before the transplant: Specific measures at transplantation

1.3. Management after liver transplantation (immunosuppression, lifestyle and habits)

1.4. Specific considerations for each type of cancer

Working Group 2: De novo Malignancies after LT

Working Group Coordinators:

Jordi Colmenero, MD, PhD *Hospital Clinic Barcelona, Barcelona, Spain*

Kymerly Watt, MD *Mayo Clinic, Rochester, USA*

Working Group Members:

Manuel Rodríguez-Perálvarez, MD, PhD *Reina Sofia University Hospital, Cordoba, Spain*

José Ignacio Herrero, MD *University Clinic of Navarra, Pamplona, Spain*

Sherrie Bhoori, MD *National Cancer Institute of Milan, Milan, Italy*

Marco Senzolo, MD *University Hospital of Padua, Padua, Italy*

Prashant Bhangui, MBBS, MS *Institute of Liver Transplantation and Regenerative Medicine, Medanta, Gurgaon, India*

2.1. Epidemiology, risk factors and survival

2.2. Preventive strategies, surveillance of extrahepatic cancers

2.3. Management of immunosuppression in patients with de novo cancer



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Working Group 3: Prevention and Management of Donor-derived Malignancies after LT (Deceased and Living Donors)

Working Group Coordinators:

Beatriz Domínguez-Gil, MD, PhD *National Transplant Organization, Madrid, Spain*

François Durand, MD, PhD *University Paris VII, Paris, France*

Working Group Members:

María Trinidad Serrano, MD, PhD *Lozano Blesa University Hospital Clinic, Zaragoza, Spain*

José Manuel Asencio, MD, PhD, FACS *Gregorio Marañón General University Hospital, Madrid, Spain*

Marieke Van Rosmalen, MD *Eurotransplant International Foundation, Leiden, The Netherlands*

Julie Heimbach, MD *Mayo Clinic, Rochester, USA*

Taizo Hibi, MD, PhD, FACS *Kumamoto University Graduate School of Medical Sciences, Kumamoto, Japan*

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

- 3.1. Epidemiology and risk factors – surveillance
- 3.2. Diagnostic tests (histology, radiology, molecular biology...)
- 3.3. Management, including early retransplantation
- 3.4. Differences between live donor and deceased donor
- 3.5. Risk and management based on individual cancer type

Working Group 4: Non-hepatic Cancer in Pediatric Population

Working Group Coordinators:

Itxarone Bilbao, MD *Vall d'Hebron University Hospital, Barcelona, Spain*

Mohamed Rela, MS, FRCS, DSc *Dr. Rela Institute and Medical Center, Chennai, India*

Working Group Members:

Francisco Hernández-Oliveros, MD, PhD *University Hospital La Paz, Madrid, Spain*

Jesús Quintero, MD *Vall d'Hebron University Hospital, Barcelona, Spain*

Paolo Muesan, MD *Elizabeth Hospital Birmingham, Birmingham, UK*

Mureo Kasahara, MD *National Center for Child Health and Development, Tokyo, Japan*

- 4.1. Extrahepatic solid tumors before pediatric LT
- 4.2. Leukemia, lymphoma and other hematologic disturbances before pediatric LT
- 4.3. Malignancies following pediatric LT, different approaches to post-transplant lymphoproliferative disorder

Working Group 5: Onco-specific Therapies after LT

Working Group Coordinators:

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

Parissa Tabrizian, MD, MSc *Icahn School of Medicine at Mount Sinai, New York, USA*

Working Group Members:

Gonzalo Sapisochin, MD *UHN - Toronto General Hospital, Toronto, Canada*

Sonia Pascual, MD *HGU Alicante, Alicante, Spain*

David James Pinato, MD, PhD *Imperial College London, London, UK*

David Al-Adra, MD, PhD *University of Wisconsin School of Medicine and Public Health, Madison, USA*

Henrik Petrowsky, MD, FACS *University Hospital Zurich, Zurich, Switzerland*

- 5.1. Surgical management
- 5.2. Oncological medical therapy including immunotherapy post LT
- 5.3. Radiological therapies post LT

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Scientific Program | Saturday, January 30, 2021

13:00 - 16:00 Working Group Presentations

(Open to all participants)

13:00 - 14:30 Working Group Presentations with Summarizing Statements

13:00 - 13:30 Working Group 1 - Summarizing Statements and Q&A

13:30 - 14:00 Working Group 2 - Summarizing Statements and Q&A

14:00 - 14:30 Working Group 3 - Summarizing Statements and Q&A

14:30 - 14:45 Break

14:45 - 15:45 Working Group Presentations with Summarizing Statements

14:45 - 15:15 Working Group 4 - Summarizing Statements and Q&A

15:15 - 15:45 Working Group 5 - Summarizing Statements and Q&A

15:45 - 16:00 Consensus Conclusion



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The International Liver Transplantation Society (ILTS) and Spanish Liver Transplantation Society (SETH) jointly prepared this Consensus Conference:

Topic Coordinators:

- **Jordi Colmenero, MD, PhD** *Hospital Clinic Barcelona, Barcelona, Spain (SETH)*
- **Kymberly Watt, MD** *Mayo Clinic, Rochester, USA (ILTS)*

Steering Committee Members:

- **José Antonio Pons, MD, PhD** *Virgen de la Arrixaca University Hospital, Murcia, Spain (SETH)*
- **Magdalena Salcedo, MD, PhD** *Gregorio Marañón General University Hospital, Madrid, Spain (SETH)*
- **Itxarone Bilbao, MD** *Vall d'Hebron University Hospital, Barcelona, Spain (SETH)*
- **Mikel Gastaca, MD** *Cruces University Hospital, Bilbao, Spain (SETH)*
- **Prashant Bhangui, MBBS, MS** *Institute of Liver Transplantation and Regenerative Medicine, Medanta, Gurgaon, India (ILTS)*
- **Eleonora de Martin, MD** *Hospital Paul Brousse, Villejuif, France (ILTS)*
- **Roberto Hernandez-Alejandro, MD, FACS, FRCSC** *University of Rochester Medical Center, Rochester, USA (ILTS)*
- **Mina Komuta, MD** *Keio University, Tokyo, Japan (ILTS)*

ILTS President 2019 – 2020:

- **Claus Niemann, MD** *UCSF, San Francisco, USA*

ILTS President-Elect 2020 – 2021:

- **Marina Berenguer, MD** *La Fe University Hospital, Valencia, Spain*

ILTS President-Elect 2021 – 2022:

- **Mohamed Rela, MS, FRCS, DSc** *Dr. Rela Institute and Medical Center, Chennai, India*



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TIME AND DATE

Consensus Conference Lectures

January 28, 2021

13:00 - 18:10

Working Groups

January 29, 2021

13:00 - 16:30

Working Group Presentations with Summarizing Statements / Consensus Conclusions

January 30, 2021

13:00 - 16:00

Time Zone

CET (Central European Time)

Check corresponding international time zones [here](#).

REGISTRATION

Please register [here](#) by January 28, 2021.

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

E-mail: registration-consensus@ilts.org

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ILTS HEADQUARTERS

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