



Annual report 2018

University Hospital Zurich Transplantation Center

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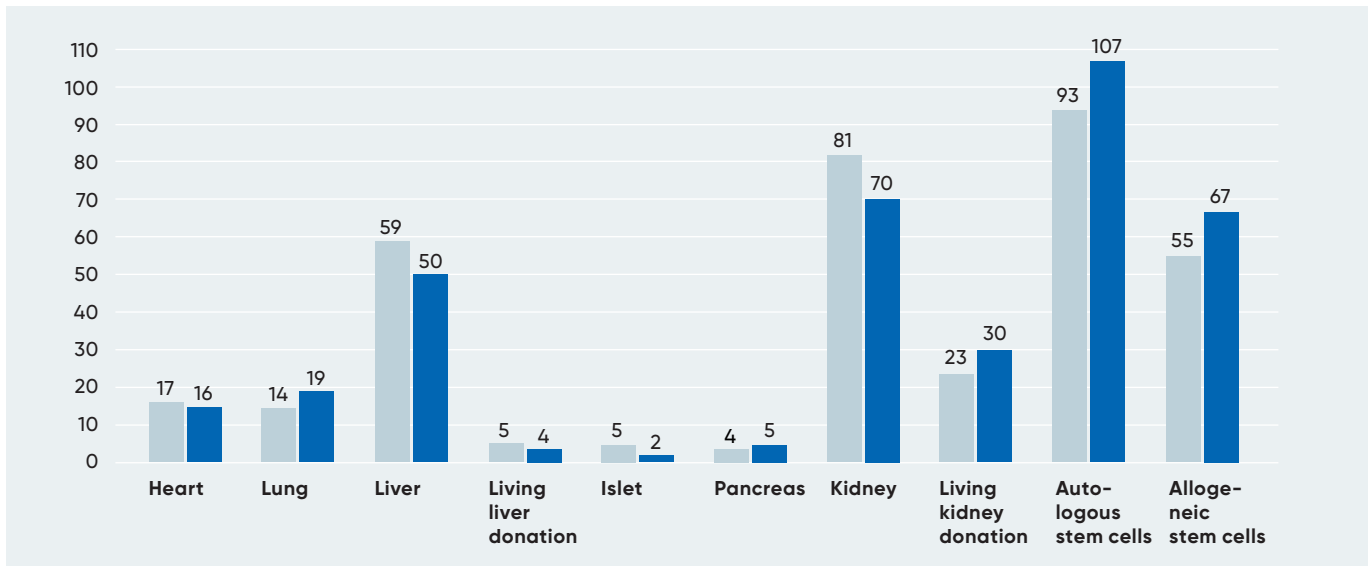
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1 The Transplantation Center in its 12th year of operation

Prof. Nicolas Müller – Head of the Transplantation Center

Number of Transplantation Center transplants in 2017 and 2018



In 2018, there were a total of 196 solid organ transplantations (2017: 208); 32 patients died while on the waiting list for organ transplantations (2017: 31).

Transplantation Center

A high number of transplantations were carried out again in 2018. The further increase in allogeneic and autologous stem cell transplantations is striking.

Boards and authorities

All solid transplantation programs are due for re-approval in 2019. The FOPH has tasked Swissmedic with carrying out the inspection. JACIE is also due for reaccreditation (stem cell transplantation).

Research and training

The center was highly successful once again this year with 50 publications. The first successfully enrolled patient in the tolerance protocol is particularly noteworthy.

Objectives for 2019

- First use of CAR-T cell therapies
- Resubmission for FOPH hand and facial transplantations, expanding the collaboration with the University of Pennsylvania
- Successful passing of the FOPH/Swissmedic inspection
- Funding of randomized trials
- Developing an evaluation scheme for foreign living donors and recipients

2 Center-specific and integrative functions

2.1. Transplant coordination

Lea Kinteh-Vischherr, Head of Transplant Coordination

2018 was marked by the consolidation and development of the team. Some long-term employees left the team. In response, the search for new personnel was intensified and additional positions were approved. In mid-August, the new head took up its post.

However, the new colleagues had not yet been experienced enough to perform coordination tasks on their own. Therefore, high demands were placed on the experienced personnel. Nevertheless, program leadership and organ coordination were functional at all times. The team handled this trying period very well and we are all happy to see it fully staffed again. We will now be working actively on the team culture and further development. New projects will be taken on and, last but not least, the large accrual of overtime hours will be reduced.

We saw an encouraging increase in living donor registrations in 2018. The number of evaluations in the living donor liver and kidney programs were roughly at the same level as last year. The cooperation between nephrologists, patients and coordinators continued to play a very important role. Several kidney evening info sessions as well as a barbecue evening for living donors were organized for this reason. These events are always very well received by patients as well as their relatives.

Particular emphasis was placed on the further training of individual team members. Two coordinators successfully completed the TPM course in Barcelona. Team members were offered several training sessions and courses at Careum, Waid City Hospital, UHZ and ZINA. One highlight was the integration of the Swiss Donation Transplant Association (SDTA) symposium into the structures of the STS meeting in Thun.

The project and process optimization for linking the Access database with the UHZ clinical information system (KISIM) will continue to move forward. Over the course of the year, all old files from organ recipients were also digitized.

Human resources

Nine persons were employed in transplant coordination as of the end of December 2018:

- At the end of 2018, this meant coverage of between 2 and 4 FTEs for the on-call service. This on-call service extends over 24 hours / 365 days per year.
- In total, 1,032 hours were coordinated in 2018.

Patient care

The following figures were recorded for patient care:

Living donor kidney donations

Stage I and II evaluations	91
Transplantations	30

Living donor liver donations

Stage I and II evaluations	10
Transplantations	4

Liver evaluations

Evaluations	77
Transplantations	50

Patients accepted to the waiting list

Added to the 2018 waiting list by TPL coordinators

Heart	20
Lungs	24
Liver	56
Pancreas + kidney	7
Islet cells after kidneys	1
Islet cells + kidney	1
Liver + kidney	2
Kidney	93
Total	204

Project work

- University Hospital Zurich (UHZ) SOAS data transfer,
- Database Access into Kisim
- STATKO
- SDTA
- STALOS
- Quality management (audit of heart, liver, kidney and lung program)

Presentations

- Classes at Careum
- ZINA
- Waid City Hospital Nephrology
- Various training sessions on UHZ wards

Learner support

- Interviews for nursing, diploma and matura completion projects

Ongoing professional development

- Thun STS
- EDTCO Munich
- TPM Barcelona
- UHZ Transplantation Center fall symposium
- Lucerne winter symposium
- Various grand rounds

2.2. Interdisciplinary HLA Typing Laboratory

Jakob Nilsson, Senior Attending Physician, Transplantation Immunology and Barbara Rüsi-Elsener, Head BMA, HLA Typing Laboratory

Completed analyses

In 2018, the HLA Typing Laboratory continued to provide the UHZ Transplantation Center with the highest international standard of transplantation and immunological lab analyses. A total of 5,702 clinical samples were received by the laboratory, for which 1,593 transplant-related HLA typings and 5,303 bead-based analyses of anti-HLA antibodies were carried out. The laboratory is available around the clock, ensuring the rapid HLA typing of organ donors and enabling the allocation of donated organs within the Swiss Organ Allocation System (SOAS). In 2018, we carried out HLA typing on 48 deceased organ donors. We also assisted with cross-matching a further 82 deceased organ donors. We supported the stem cell transplantation program by carrying out immunological transplantation tests on 153 potential stem cell recipients and HLA typing on 213 potential donors.

Waiting list for organ transplantation

The HLA Typing Laboratory carries out ongoing immunological transplantation tests to ensure that the waiting lists for an organ transplantation are always up to date.

As of January 1, 2019, 351 patients were on the waiting list for a donor kidney. Of these, 94 were newly registered in 2018. During the same period, 100 patients received a new kidney at UHZ (30 of which came from living donors). In terms of lung transplantations, we carried out 49 immunological transplantation evaluations for potential recipients in 2018, and 19 patients received a new lung at UHZ. As of January 1, 2019, 18 patients were on the waiting list for a lung transplant. We also carried out the immunological characterization of 23 potential candidates for a heart transplant, 16 of whom underwent transplantations at UHZ in 2018. As of January 1, 2019, 16 patients were on the waiting list.

Key changes in laboratory tests

Over the course of 2018, several changes were made to laboratory routines. We have developed a method for a virtual cross-matching (vXM), which we have been using in clinical practice for kidney transplantations since the beginning of 2018. In 2018, 37 recipients underwent transplantations using our vXM method. The retrospective CDC crossmatching came back negative for all patients. A vXM method for thoracic organ transplantation is also in development and will be introduced in 2019. In 2018, we also stopped performing serological HLA typing. Since then, we have been using HLA typing only with molecular biological methods. For the typing of human platelet antigens (HPA), we have been using a real-time PCR method since 2018 that is speeding up our analysis time.

Additional information

In 2018, we hired two additional BMAs (Vanessa Stutz und Tizian Camarotta) for the lab team. Silvana Hohl has left the laboratory and Anne-Rose Schlauffer retired. In 2018, the European Federation of Immunogenetics (EFI) also carried out an inspection of our lab and the EFI accreditation was renewed successfully with an excellent quality score. The laboratory also supported the Swiss Transplant Cohort Study (STCS) in 2018 by processing 562 clinical samples of transplanted patients as well as receiving and dispatching stored samples for other studies analyzed by STCS.

2.3. Prizes

Prizes/awards received by the TPLZ or by the clinics in relation to organ transplantations:

- Somogyi Award 2018 of the Hungarian Diabetes Association, April 20, 2018 (highest distinction in the field of diabetes in Hungary)
- Prof. Roger Lehmann, "Beta-cell replacement of treatment of severe hypoglycemia: long-term comparison between islet-kidney vs. pancreas-kidney transplantation." *Diabetologia Hungarica* 2018, 26 (4):207-220

- Dr. P. Schreiber, Swiss Transplantation Society Award: “Metagenomic virome sequencing in living donor-recipient kidney transplant pairs revealed JC Polyoma-virus transmission”, CID, 2018
- Dr. X. Muller, Swiss Transplantation Society Award, “Defining benchmarks in liver transplantation”, Ann Surg. 2018
- Dr. P. Kron, Swiss Transplantation Society Award “Hypothermic oxygenated perfusion for fatty livers”, J Hepatol 2018

Prizes/awards given out by TPLZ: Clinical trial prize 2018 from Zurich Transplantation Center

- Dr. Xavier Muller
“Outcomes of DCD liver transplantation using organs treated by hypothermic oxygenated perfusion before implantation”
- Dr. Corinne Widmer
“Transient paraproteinemia after allogeneic hematopoietic stem cell transplantation is an underexplored phenomenon associated with graft versus host disease”
- Zurich Transplantation Center 2018 Merit Award: POZH – Projekt Organspende Zürich (UZH medical students)

2.4. Collaboration in national and international

Nicolas Müller

- President, Swiss Society of Infectious Diseases
- Member, IVHSM Specialist Body
- Chairman of the Scientific Committee of the Swiss Transplant Cohort Study
- Member of the Scientific Committee of the Swiss Society of Transplantation
- Editorial Board of Xenotransplantation; Transplant Infectious Diseases

Christian Benden

- ISHLT, Governance Committee Member
- ISHLT, Scientific Program Committee Past Chair
- ERS, Transplantation Group Chair
- TTS, Heart and Lung Committee Member

Journals:

- Journal of Heart and Lung Transplantation, Editorial Board Consultant
- Clinical Transplantation, Associate Editor

Kuno Betschart

- Member of Swiss Nurse Leaders
- Member of the Swiss Transplant Nurses Network

Olivier de Rougemont

- Member of the Boards: STAN, STALOS, STAPS (President)
- Member of the Swisstransplant Medical Committee
- Scientific committee: Swiss Transplant Cohort Study
- Member of MERH (Center for Medicine – Ethics – Law Helvetiae)

Philipp Dutkowski

- President of STAL
- President of STAPT
- Member of the Comité médical
- Member of the DCD Working Group Swiss Transplant
- Member of the ILTS Special Interest Group DCD/ Machine liver perfusion

Andreas Flammer

- President elect of the Swiss Society of Cardiology Working Group Heart Failure
- Fellow of the European Society of Cardiology (FESC)
- Fellow of the European Heart Failure Association (FHFA)
- Member of HFA Diagnosis Committee and Working Group for Heart Failure Imaging
- Member of the Working Group Heart of Swisstransplant (STAH)

Josef Jenewein

- President of the Swiss Society of Consultation-Liaison Psychiatry (SSCLP)
- Board Member of the European Association of Psychosomatic Medicine (EAPM)

Lea Kinteh-Vinschherr

- Member of OKT (core operations team) CNDO (National Committee for Organ Donation)
- Member of STATKO (Swisstransplant working group of coordinators)

Roger Lehmann

- Former President of the Central European Diabetes Association (FID) 2013–2018
- Board Member of the European Pancreas and Islet Transplant Association 2013–2019
- Scientific committee: Swiss Transplant Cohort Study

Thomas Müller

- Member of the Boards/Scientific Committees (STAN, STALOS)
- Scientific Committee (Swiss Transplant Cohort Study, Swiss National Science Foundation member evaluation body)
- Member of UZH Ethics Committee
- Board Member of DICG (Declaration of Istanbul Custodian Group)
- Board Member of Swiss Kidney Paired Donation Groups

Mjriam Nägeli

- Academic Secretary of SCOPE (Skin Care in Organ Transplant Patients Europe)
- Scientific Committee Swiss Transplant Cohort Study
- Member of ITSCC (International Transplant Skin Cancer Collaborative)

Jakob Nilsson

- Fellow of the Transplant Society
- Fellow of the European Federation of Immunogenetics
- Associate editor Frontiers in Immunology

Jan Plock

- Member of the Basic Science Committee ESOT, since 2015

Cécile Robinson

- Member of the Swiss Working Group for CF
- Member of ISHTL

Urs Schanz

- President of Swiss Blood Cell Transplantation (SBST)
- Member of the Allogeneic Stem Cell Transplantation Commission (KAT)
- Board of Directors, Swiss Transfusion SRC
- Member of the EBMT Nuclear Accident Committee (NAC)
- Senior editor: Transfusion and Apheresis Science (2013–2015)
- Editorial Board Member of Transfusion and Apheresis Science since 2016

Peter Steiger

- Steering Group Peer Review of QMI (Quality Medicine Initiative)

Markus Wilhelm

- President of the Working Group Heart of Swisstransplant (STAH)
- President of the Swisstransplant Medical Committee
- Member of the Working Group for Procurement and Transportation of Swisstransplant (STAPT)
- Member of the Board of Representatives of the Swiss Transplant Cohort Study (STCS)
- Member of the Working Group Heart Failure of the Swiss Society for Cardiology
- Member of the Mechanical Circulatory Support Counsel of the International Society for Heart and Lung Transplantation

Marco Zalunardo

- SGAR: Member/President of Working Groups: Evaluation of Teaching Centers (2), Non-Anesthetist Analgosedation

SGAR: Committee: Visitation

SGAR: Committee: Education

SIWF: Executive Board Member

SIWF: Member of the Education Grant Jury

2.5. Professional development

Prof. Nicolas Müller – Member of the TNT Organizing Committee

Our seminar “Hot Topics in Transplantation” (TNT Annual program 2018) once again showed the range of scientific activities under way at local and international level, as reflected in the list of internationally renowned speakers. This was only possible with generous sponsorship (Astellas Pharma AG, MSD AG, Novartis Pharma Schweiz AG, Pfizer AG, Sanofi, Amgen and BMS), and we would like to take this opportunity to express our sincere gratitude to them.

“Limits and chances”, the 12th Annual Meeting of the Transplant Center held on November 16, 2018, with participation of the International Advisory Board was a huge success. During this annual meeting, Prof. Halloran gave the Borel-Stähelin Lecture titled “Molecular diagnostics in transplantation – lessons learned and added value.”

On the following day, he led the workshop “Added Value of the Molecular Microscope”, which saw a lot of active participation.

2.6. Swiss Transplant Cohort Study (STCS)

Prof. Nicolas Müller, Chairman of the STCS Scientific Committee

So far, 137 nested projects have been evaluated, resulting in 57 publications, all with the involvement of UHZ. Zurich is responsible for the highest share of the patients enrolled: of 7,013 patients in total, 2,413 or one-third received transplants at the Zurich Transplantation Center. Ensuring that sample and data collection is performed as effectively as possible represents a major logistical challenge. Sincere thanks are due to all those involved.

International collaborations were initiated in the STCS, such as the intercohort collaboration with PERSIMUNE (www.persimune.dk), Prof. Jens Lundgren.

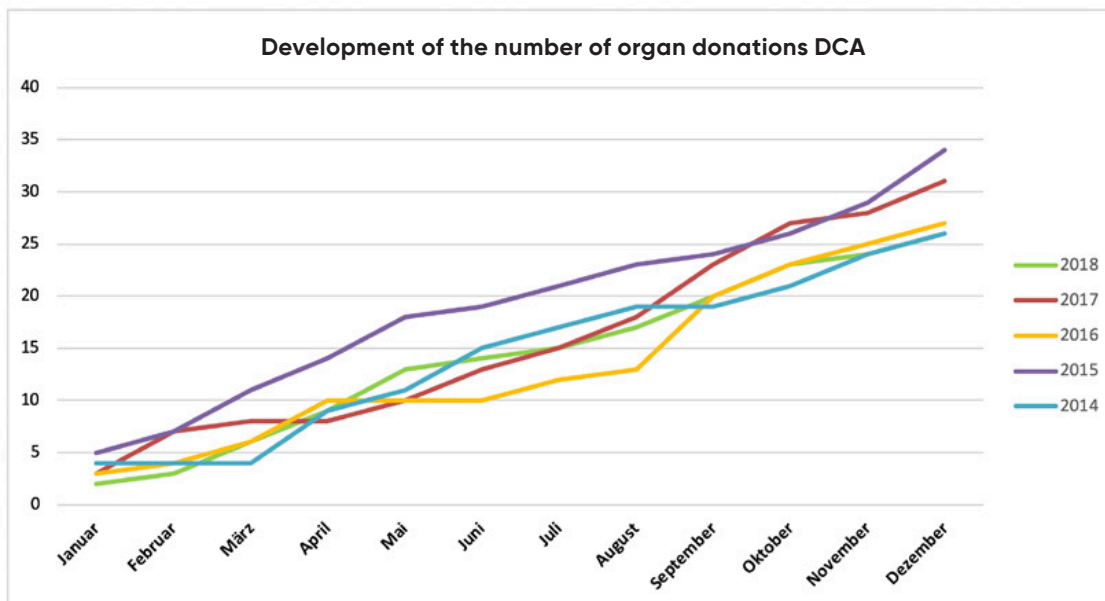
3 Organ donation network

3.1. Organ donation campaigns 2018

Once the first stage of the “More organs for transplantation” plan of action was completed, Organspende Schweiz saw an increase in the number of postmortem donations (158), which is the equivalent of 18.6 per million residents.

The number of DCA donors was 26, of whom 20 were after primary brain death (DBD) and 6 after cardiac death (DCD). Despite fewer donors compared to the previous year (31), 81 organs instead of 79 organs were harvested.

A donor at Zollikerberg Hospital was identified for the first time since DCA has been available. (This information was taken from the 2018 annual report released by the Donor Care Association DCA).



Source: 2018 annual report of the Donor Care Association DCA, page 2

4 General care of transplant recipients at the Transplantation Center

4.1. Anesthesiological aspects of transplantation

Prof. Marco P. Zalunardo, Dr. Rolf Schüpbach

4.1.1. Organization

The algorithm introduced last year for liver TPL patients requiring a perioperative kidney replacement procedure proved successful. No unresolved issues remain.

The process for liver TPL consultations for urgent patients has now been reorganized. These patients will be referred by the departments directly to the TPL coordinators so that everything can be entered and taken care of in KISIM (coordination track F-OP) clearly and transparently, just as with all elective consultations.

4.1.2. Clinic

Following the joint waiting list consultations, 24 patients were added to the waiting list for lung transplantations, 56 patients for liver transplantations and 93 patients for kidney transplantations.

For the cumulative (lung and liver) 100 listed patients, the TPL team from Anesthesiology carried out 128 consultations.

There was a significant increase in the number of lung transplantations/recipients in 2018 (19 vs. 14 in 2017). The number of liver transplantations dropped slightly from 64 in 2017 to 54 for the reporting period.

The number of kidney transplantations, which peaked in 2017 at 104, remained steady at 100 transplantations. Special focus is given to secondary cardiac diseases in these patients. For this reason, special meetings are held once or twice each month and organized jointly by the departments of Nephrology, Cardiology, and Anesthesiology.

4.2. Nursing care at the Transplantation Center

Kuno Betschart, Head of Nursing MB AST

Ramona Odermatt, Specialist Nurse MB AST

4.2.1. Transplantation nursing care

Patients who have been called in for a transplantation are received in the East E III ward and prepared for the upcoming surgery. They then receive postoperative care and assistance following a lung, liver, kidney, pancreas and islet cell transplantation or combined transplantation. To coordinate the discharge and treatment in the best way possible, interprofessional meetings are held weekly for liver transplant patients and bi-weekly for lung transplant patients. These consultations are conducted by nursing care experts.

The focus of nursing care in the case of all transplant patients is to enable self-management. All transplant patients are offered structured patient education, which is adjusted to the individual situation and, on request, can take place together with the patient's family members. To plan and carry out these educational sessions in a timely manner, changes were made to the supporting structures within the nursing team.

For the sake of systematically implementing the latest treatment standards for all patients from the time they are admitted, the therapy standards saved in the patient documentation system have been updated in several places in cooperation with the responsible doctors and therapists.

4.2.2. Swiss Transplant Care Network

The Swiss Transplant Care Network was founded in 2010 and is currently headed by Ramona Odermatt, Specialist Nurse MB AST. In spring 2018, the members, nursing care professionals from all transplantation centers and other institutions, all came to Bern to discuss developing a set of best practices for medication regimes for patients as well as principles for practice development in nursing care.

4.2.3. "Kidney transplantation" APN

Autorin: Patrizia Zala, Specialist APN, kidney transplantation

APN care consultations

One-off training and advice for all new transplant recipients: as part of the advanced practice nurse (APN) care consultations, a total of 404 training, information and advice sessions were provided by the APN to post-kidney transplant patients. Relatives were included in some of these consultations. The information brochures for those involved before and after a kidney transplant were revised. Printed brochures 1 and 2 – redesigned and expanded – are available in German. The new content was integrated into the existing brochures for the Italian-language version. The new edition of brochure 3 will follow later in the course of the UHZ redesign.

Peer referral

Three patients on the waiting list for a kidney or combined kidney-pancreas transplantation were each referred to a transplant recipient (peer) to discuss their experiences.

Transition program

As part of a transition afternoon organized together with the Children's Hospital Zurich, seven young people were moved into adult medical services – one person with chronic renal insufficiency and six who had undergone kidney transplantations. Each of them received a status review and consultation (with a parent or caregiver if requested). According to individual requirements, they continue to be accompanied by an ANP.

"ANP health behavior education program" study

The analysis of the quantitative section of the study "Impact of an advanced nursing practice education program on weight gain, mobility and medication intake for

patients in the first year after kidney transplantation" is complete. The corresponding article has not yet been published. For the sub-study on the qualitative evaluation of the interventions from the patient perspective, 13 semi-structured interviews were conducted and evaluated.

Symposia

Zala, P. (February 2, 2018): APNs in the field of renal transplantation. Oral presentation at the inter-professional symposium "Neue Berufsrollen an der Schnittstelle Pflege und ärztlicher Dienst" [New professional roles at the intersection of nursing and medical services"], University Hospital Zurich, Zurich.

4.2.4. Liver transplant nursing consultations

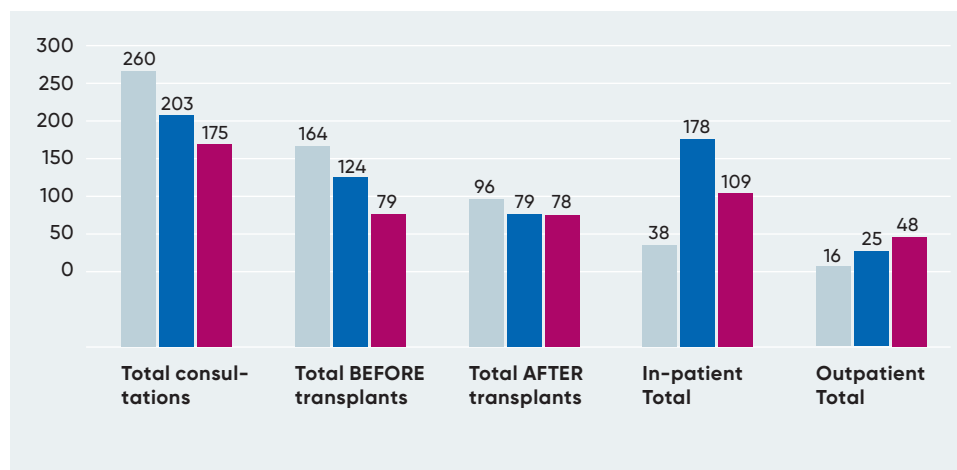
Autorin: Andrea Pfister Koch, Specialist APN, liver transplantation

The liver transplant nursing consultations offer patients and family members advisory services before and after transplantation. The consultations are delivered by a specialist APN in inpatient and outpatient settings. The objective is to offer the best possible support for patients and family members in preparing for life with a new organ and to strengthen self-reliance in relation to the disease. The content and approach of the consultations are adapted to the individual requirements of those affected. The focal points are:

- Before the transplantation: symptom management, waiting list procedure, health (e.g. quitting smoking, maintaining nutrition levels and getting exercise), emotional handling of the situation
- After the transplantation: medication intake, prevention of infection, self-monitoring, rejection reactions, sun protection, health behavior

Liver transplant nursing consultations

■ 2016 ■ 2017 ■ 2018



Information brochures

In addition to the consultations, patients and family members receive the following brochures: "Preparing for a liver transplant" and "Life after a liver transplant". The brochures also form the basis for the structured inpatient training. Since 2017, the brochure, "Living liver donors – what donors and recipients need to know" has also been handed out.

Cooperation

Inter-professional cooperation within the UHZ and beyond was further expanded in 2018.

- At UHZ: Consultations and structured inpatient education during hospital stays after transplantation are planned and delivered in conjunction with the ward nursing teams. The weekly inter-professional case meetings allow the treatment team, which comprises staff from the nursing department, APN, medical service, psychiatrist, dietitian, physical therapist and Social Services, to quickly attend to the patient's individual needs and to coordinate the discharge in a timely manner.
- Davos-Clavadel Zurich rehabilitation clinic: The collaboration with the nursing and medical team has become established in terms of the structured education following transplantation. There is regular communication about patients being treated by both clinics. A training day was held at the Davos-Clavadel rehabilitation clinic in November 2018 to offer a content refresher as well as an orientation for new staff members.
- St. Gallen Cantonal Hospital (KSSG): Patients who primarily receive pre- and post-transplant medical care at St. Gallen Cantonal Hospital also attend consultations with KSSG's specialist APN hepatology nurses. Close collaboration enables a seamless transition between the institutions. Open questions from previous consultations can be handed over to the expert APN of the hospital in question.

Presentations

- Beckmann S. and Pfister A. (2018). "Advanced practice nurse collaboration enables an integrated, patient-centered care process in liver transplantation across hospitals", Enhancing Practice Conference, Basel, Switzerland (August 22, 2018)
- Beckmann, S. and Pfister A. "Die Pflegesprechstunde Lebertransplantation – Versorgungsqualität durch Kontinuität und Unterstützung im Selbstmanagement", 27th annual convention of the German Transplant Society (DTG), Berlin, Germany (November 9, 2018)

4.3. Infectious disease control for transplant patients

Prof. Nicolas Müller, Infectious disease

Our service recorded 1,806 infectious disease consultations including follow-up consultations for patients in connection with transplants in 2018. This corresponds to approximately one-fourth of all infectious disease consultations held at UHZ. It underlines the importance of infectious disease treatment and prevention in recipients of new organs or stem/islet cells. In addition to this on-call service, all new patients on the waiting list for kidney, pancreas or islet cell transplants were routinely checked for serology, history of infections and vaccination status.

Regular participation in weekly visits to stem cell recipients and patients who recently received a new kidney or pancreas ensures continuous care and close cooperation. The visits for liver transplant patients implemented since 2013 have become an important part of post-operative care. Optimal infectious disease management is also achieved through the regular revision of various guidelines.

4.4. Follow-up care among transplant patients in the Department of Dermatology

Dr. Mirjam Nägeli

Recipients of solid organs and bone marrow/stem cells are seen as part of specialized consultations for immunosuppressed patients at the Department of Dermatology. Led by Dr. Mirjam Nägeli, there were more than 3,192 specialized consultations in 2018, with a total of 1,917 patients (an additional 100 patients compared to 2017). The main focus is on prophylaxis, early detection and treatment of white skin carcinoma (spinocellular skin carcinoma), which is the most common malignant tumor resulting from long-term immunosuppression. Existing tumors are detected and removed as part of the pre-transplant assessment. At the same time, transplant patients are advised on the risk of basal-cell carcinoma and are taught prevention measures such as habit-change, clothing, application of sunscreen and early detection.

Information brochures

In addition to advice, new patients receive the brochure titled "Suppressed immune defenses in the skin".

Studies

As part of a multi-center European study, we are monitoring how many of our patients are affected by skin cancer

metastases and which factors present an increased risk. We thereby hope to identify patients with the greatest need at an early stage and tackle this in a targeted manner.

Collaboration in international committees

Close collaboration with transplant dermatologists through Skin Care in Organ Transplant Patients Europe (SCOPE) and the International Transplant Skin Cancer Collaborative (ITSCC) in the USA.

In 2018, M. Nägeli and G. Hofbauer organized the very successful annual SCOPE Meeting in Zurich with 55 international attendees.

Presentations in 2018

- Nägeli M, Hofbauer G: local organizer 18th annual meeting SCOPE in Zurich, April 19–22, 2018
- Nägeli M: Checkpoint inhibitors in sOTR: experiences. Oral presentation. ITSCC Biennial Scientific Retreat, September 27–30, 2018, Essex, MA
- Nägeli M, Mangana J: 2018 checkpoint inhibitors in sOTR. Oral presentation. 12th Annual Symposium of the Transplant Center Zurich, November 16, 2018

Publications

- Gassmann D, Weiler S, Mertens J, Reiner C, Vrugt B, Nägeli M, Mangana M, Müllhaupt B, Jenni F, Misselwitz B (2018). Liver Allograft Failure After Nivolumab Treatment – A Case Report With Systematic Literature Research. *Transplantation Direct* 2018 Jul 20;4(8):e376
- Dantal J, Morelon E, Rostaing L, Goffin E, Brocard A, Tromme I, Broeders N, Del Marmol V, Chatelet V, Dompmartin A, Kessler M, Serra A, Hofbauer GFL, Kamar N, Pouteil-Noble C, Kanitakis J, Roux A, Decullier E, Euvrard S; TUMORAPA Study Group. Sirolimus for Secondary Prevention of Skin Cancer in Kidney Transplant Recipients: 5-Year Results. *J Clin Oncol*. 2018 Sep 1;36(25):2612–2620.

4.5. Psychosocial care for transplant patients

Dr. Andre Richter, Advisory and Liaison Psychiatric Services

Every transplant patient is offered psychiatric care and psychotherapy. This begins with the first consultation and continues during the waiting period and after surgery during their hospital stay. Later, the same expert is kept whenever possible. Relatives are also integrated into the treatments. Psycho-social evaluations of donors are also

carried out. A total of 846 consultations for 479 patients were carried out in the wards. 157 patients received care at our outpatient clinic. They underwent 626 consultations in total. The team members also took part in interdisciplinary case discussions in the departments and the waiting list colloquia.

The team is part of the Advisory and Liaison Psychiatric Services division of the UHZ Clinic for Psychiatry and Psychosomatic Medicine. Prof. Josef Jenewein handed over directorship of the department to Dr. Sebastian Euler in the summer. The team consists of three FMH-certified attending physicians specializing in psychiatry and psychotherapy with additional qualifications in consultative and liaison psychiatry or psychosocial medicine (1.80 FTE) and one specialist psychologist for psychotherapy (0.6 FTE). Dr. Andre Richter has been representing the service on the Directorate of the Transplantation Center since September 2018.

5 Individual transplant programs

5.1. Allogeneic stem cell transplantation

Urs Schanz, Department of Hematology

The allogeneic transplantation figures hit a new high at 67 (2017 n=55, 2016 n=56, 2015 n=58). The most common indications for allogeneic stem cell transplantation remained myeloid neoplasms (67% in total; acute myeloid leukemia n=31, myelodysplastic syndrome and myeloproliferative neoplasms n=14). The cumulative transplant-related one-year mortality rate remained encouragingly low at 8%.

The total number of transplants increased: the number of transplants with unrelated donors was 33 (2017 n=28) and related donors was 34 (2017 n=27), with the latter group of donors including 23 HLA-identical siblings and 11 donors who were haploidentical children, parents or siblings (2017 n=6). Thus, haploidentical transplantations showed the biggest increase and we are interested to see whether this trend will continue next year. The number of reduced intensity conditioning cases remained roughly the same at 68% (2017: 73%).

Once again, there was an increase in evaluations and supplying transplants from healthy, voluntary donors for other centers in Switzerland and around the world. In 2017, we supplied 36 of these unrelated donor transplants, and 43 in the reporting year.

5.2. Autologous stem cell transplantation

Dr. Antonia Müller, Klinik für Hämatologie

2018 was also a very successful year for autologous stem cell transplantations, with transplantations likewise at a new high (n=107). The well-established and successful collaboration with Triemli Hospital in the field of autologous stem cell transplantation continued in 2018. As in the previous year, the main indication for high-dose chemotherapy with autologous re-transfusion was plasma cell myeloma (n=42 patients, 26 of whom received a tandem transplantation due to their cytogenetic high-risk situation).

The second most common indications remained non-Hodgkin's (n=19) and Hodgkin's (n=4) lymphomas. In addition, patients with acute myeloid leukemia and germ cell tumors underwent per protocol transplants.

What has changed over previous years is that we received approval from the FOPH's Federal Medical Services Commission (FMSC) in July 2018 to treat multiple sclerosis patients with maximum immune modulation through high-dose chemotherapy with autologous stem cell transplantation. In close cooperation with Professor Roland Martin (Department of Neurology) and his group, we set up a registry study that specifically defines the preliminary and follow-up examinations. Treatment decisions are made accordingly during the monthly Neuroimmunology and Hematology Committee meetings. FOPH approval is initially granted for a limited period, is restricted to Zurich and requires the respective enrollment of the patients in this specific registry study. Since July 2018, we were able to perform an autologous stem cell transplantation for a total of 9 multiple sclerosis patients by the end of the year. Overall, the treatment was well tolerated but, due to the thymocyte globulin and consecutive severe T-lymphocyte depletion resulting from this modified high-dose treatment protocol, one patient developed a severe CMV disorder.

Staffing of the team for autologous applications remained stable. There has been an autologous stem cell coordinator since 2018. With the transfer of all administration and SOPs to the area of hematological diagnostics, the changes and restructuring affecting the stem cell laboratory that started in 2017 were completed in the course of 2018. A Swissmedic inspection of the stem cell laboratory and umbilical cord program wrapped up the year successfully in November 2018.

Although it is to be treated as a separate treatment modality, it should be mentioned that our hospital has been certified to perform treatments with chimerical antigen receptor T cells since November 2018. This involves having autologous lymphocytes collected from the patients, cryopreserved, and sent for genetic modification externally (currently in the USA) so that the T-lymphocytes carry a chimerical antigen receptor. Then they are sent back to the treatment center and given to the patients there. Kymriah® is the first cellular therapy of its kind available in Switzerland and is approved for patients with relapsed, refractory diffuse large-cell B-cell lymphomas.

5.3. Heart transplantation

Prof. Markus Wilhelm, Cardiovascular surgery

Dr. Andreas Flammer, Cardiology

In 2018, the number of heart transplantations (16) was close to the previous year's record of 17 heart transplantations. Compared internationally, the post-surgery heart transplant survival rate is above average. One-third of the 16 patients who received a heart transplant in 2018 had previously had a heart support system until their heart transplant, three patients with a left ventricular assist device (LVAD), one patient with a bi-ventricular assist device (BVAD) and one patient with extra-corporeal circulatory support (ECLS).

There was a slight rise in implantations of heart support systems in 2018 over the previous year (Fig. 1). Ten patients received a left-ventricular support system (Fig. 2) and three patients were given a bi-ventricular heart support system (Fig. 3). Five of these patients (38%) were changed from extracorporeal life support (ECLS) to a heart support system due to being high-risk cases.

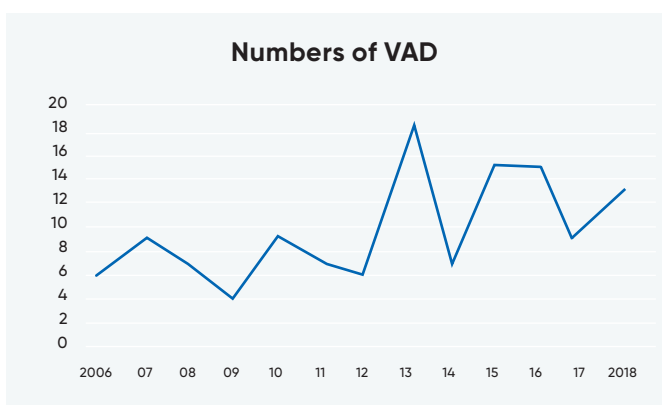
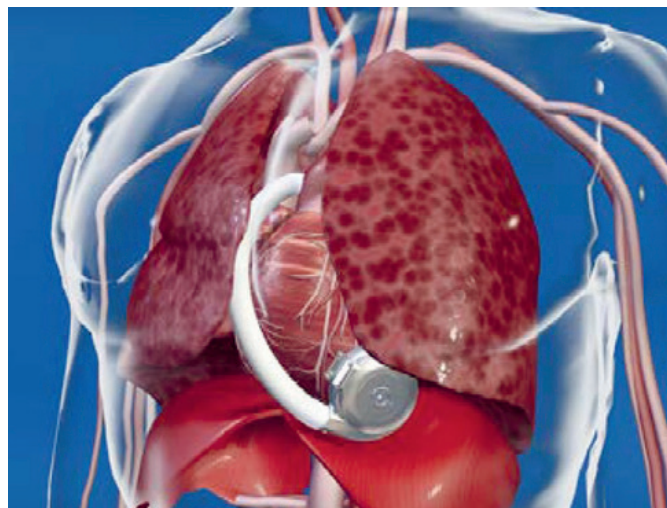


Fig. 1: Implantations of heart support systems (VAD) since 2006

Fig. 2: Left-ventricular support system (HeartWare®)



The number of ECMO (ExtraCorporeal Membrane Oxygenation) and ECLS (ExtraCorporeal Life Support) implantations used for therapy for refractory acute pulmonary or cardiovascular failure increased significantly once again over the previous year, totaling 150 in 2018 (Fig. 4).

Approximately 80% of the implantations were carried out as ECLS in cardiogenic shock, 20% as ECMO in lung failure. The transfer of patients with ECMO/ECLS reached a new record in 2018. 40 patients were given ECMO/ECLS in external hospitals and subsequently transported to ECMO/ECLS at University Hospital Zurich.

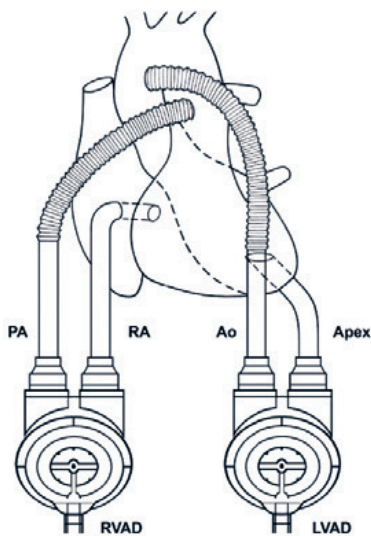
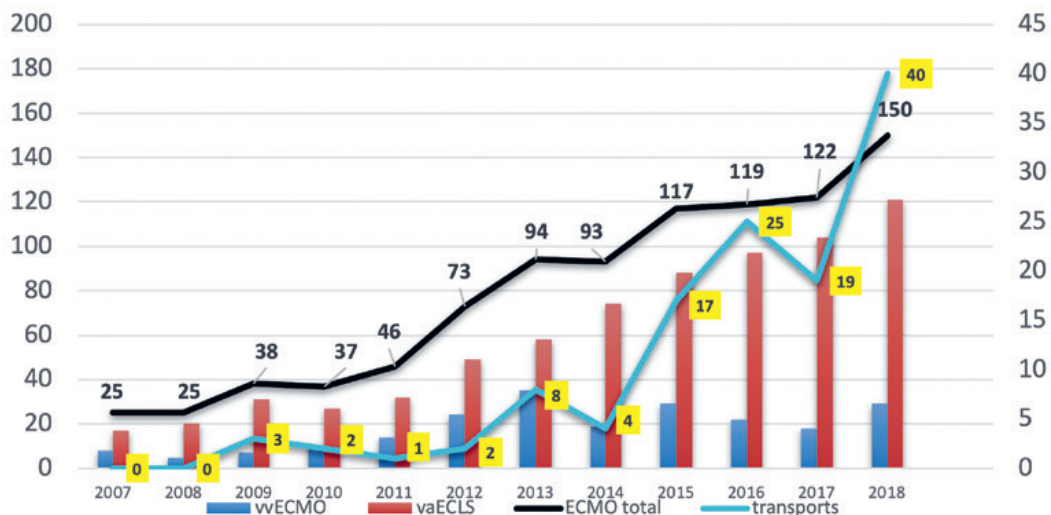


Fig. 3: Bi-ventricular heart support system (Berlin Heart EXCOR®)

Fig. 4: Number of ECLS/ECMO implantations since 2007



5.4. Lung transplantation

Dr. Sven Hillinger, Thoracic Surgery
Dr. Cécile Robinson, Pneumology

For the 2018 reporting year, a total of 19 lung transplants were performed, one of which was pediatric, mainly using perioperative ECMO.

44 patients were evaluated for lung transplantation, of which 3 were for heart-lung transplantation and 2 were children. A total of 23 patients were added to the waiting list. Significantly more patients were referred for evaluation than in the previous year. The proportion of patients with cystic fibrosis remains very low because, thanks to new CFTR modulator treatments, it is often possible to stabilize or even improve the state of health, even for patients with severe CF pneumopathy. The lung transplantation benchmarking project was completed.

In 2018, a contractual partnership was arranged between Quartier Bleu, a practice specializing in CF at Lindenhospital in Bern, and the adult CF center at UHZ for the care of patients with advanced CF lung disease and for transplantation evaluation.

Once again in 2018, the team attended various international conferences where they gave presentations and participated in international committees and editorial boards. Prof. Benden served as Program Chair for the organization of the annual conference of the International

Society for Heart and Lung Transplantation (ISHLT) in Nice. Lung transplantation continues to be a key focus of research at UHZ.

In the area of research, we were able to recruit Dr. Citak Necati, a thoracic surgeon from Turkey, who is working closely with Prof. Inci and Dr. Iskender on the topic of ex vivo lung perfusion.

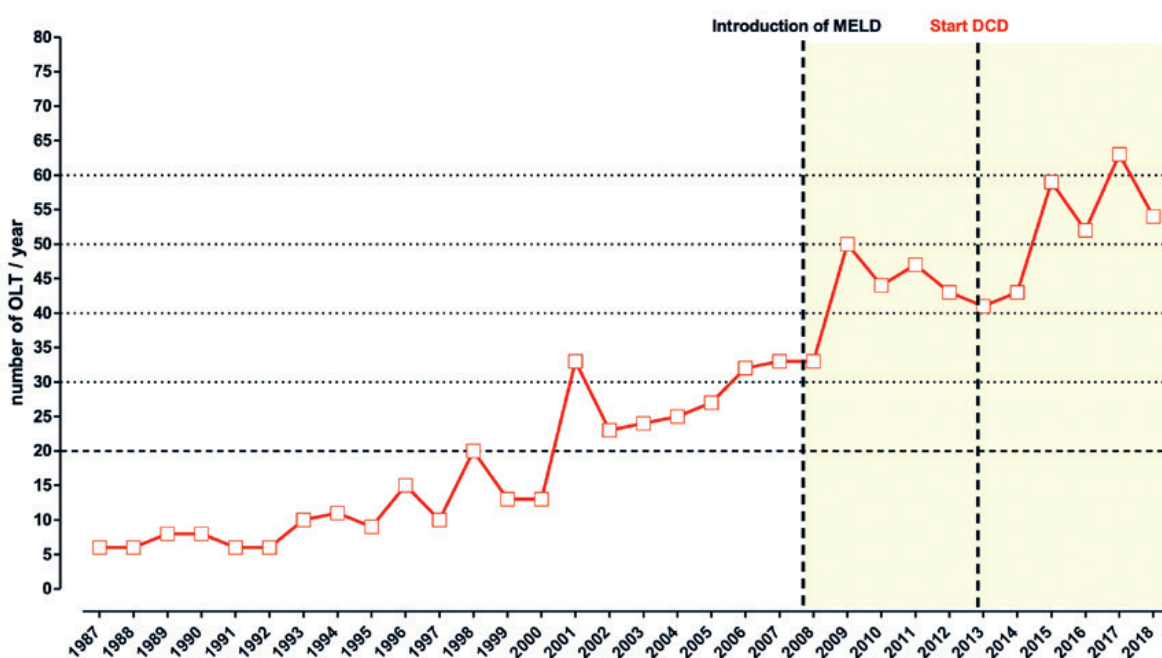
Dr. Macé Schuurmans was appointed Head of Pneumology at Kantonsspital Winterthur. We thank Dr. Schuurmans for the many years of work he has devoted to lung transplant patients and his outstanding contribution to the implementation of treatment standards and broad scope of research in this field. His successor is Dr. Carolin Steinack. Dr. Christian Benden was awarded a titular professorship at the University of Zurich on August 24, 2018.

5.5. Liver transplantation

Prof. Philipp Dutkowski, Visceral Surgery
Prof. Beat Müllhaupt, Gastroenterology

In 2018, 54 liver transplantations were performed in Zurich (a total of 156 liver transplantations performed in all of Switzerland), of which 12 were performed after circulatory death (DCD) and 4 were living liver transplantations. All DCD livers are routinely optimized in Zurich using an ex vivo liver perfusion (Hypothermic Oxygenated Perfusion, HOPE).

Liver transplantation UHZ 1987–2018



5.6. Kidney transplantation

Prof. Thomas Müller, Nephrology

Dr. Olivier de Rougemont, Visceral Surgery and Transplant Surgery

A total of 100 kidneys were transplanted at University Hospital Zurich in 2018. This means that we were able to keep pace with last year's high numbers, which requires a lot of work on the part of the staff. In recent years, all waiting list preparations and consultations have been carried out by just two specialists. The cooperation with the referring nephrologists remains outstanding. Twice a year (once at UHZ and once in Ticino), we conduct referral meetings that are very well received by our colleagues.

A total of 30 living kidney transplants were performed, marking a significant increase over 2017.

For patients on the waiting list, we held two information evenings at UHZ and one in Ticino last year. The events were each attended by around 100 participants and proved to be an effective platform for sharing experiences. Information evenings for patients will also be organized for 2019.

One highlight was also our event for living donors, their organ recipients and family members, which was held for the third time and included presentations, discussions and a barbeque for everyone.

The results from the transplant program were presented on both the national (SGN, STS, SGC) and international (TTS) level.

5.7. Pancreas transplantation

Dr. Olivier de Rougemont, Department of Visceral Surgery and Transplant Surgery

Five combined pancreas/kidney transplantations were performed in 2018. This means that we are still on par with the European average. The surgical standards were upheld despite low case numbers.

In 2018, no patients had to undergo further surgery after undergoing a combined transplantation; all organs began functioning immediately. Much like the singular kidney transplants, the team's stability is essential for achieving these good results.

5.8. Islet cell transplantation

Prof. Roger Lehmann, Endocrinology and Diabetology

5.8.1. Islet cell transplantation for reporting year

In 2018, we only performed two islet cell transplantations. These were combined kidney islet cell transplantations.

5.8.2. New regulations for pancreas allocation

Despite new allocation rules for pancreas and islet cell transplantation, which were implemented by the FOPH in November 2017 and standardize organ allocation for patients on the waiting list for beta cell replacement, no more transplantations could be performed because most of the organs available were considerably older and the donors had multimorbidities. In addition, thanks to modern treatment methods for type 1 diabetes, most patients do not develop renal insufficiency or do so only at an age when a transplant is out of the question. Diabetic medicine has made huge leaps in recent years.

5.8.3. Diabetes care

Interdisciplinary collaboration between the three departments of Visceral Surgery and Transplant Surgery, Nephrology and Endocrinology at the Transplantation Center focusing on care of islet or pancreas and kidney transplants works extremely well. Patients are discussed and evaluated jointly before being listed for transplantation. The latest technology is also used in treatment, with continuous blood sugar measurements and a sensor-equipped pump that enables the hypoglycemia rate to be further reduced through the insulin pump's predictive hypo-stoppage coupled with a glucose sensor (Minimed 640G and now with the 670G).

In addition, state-of-the-art semi-automatic insulin pumps (Medtronic 670G), which secrete insulin depending on the glucose levels measured by the glucose sensor and automatically increase insulin secretion when blood sugar values are elevated, offer a much better way to control blood sugar. Blood sugar levels can be kept in the target range much more reliably (75% of the values are between 3.9 and 10 mmol/l). Later complications can be avoided when these methods are administered successfully at an early stage.

5.8.4. Key aspects of the islet cell transplantation program in the coming years

a) Autotransplantation of islets

Together with the Department of Gastroenterology (Dr. Chr. Gubler), more patients with chronic pancreatitis are to be informed about the possibility of a total pancreatectomy. It can eliminate the chronic pain that often leads to patients being unable to work. The auto-transplantation of isolated islets from the person's own pancreas preserves the body's own ability to produce insulin. The information events at various hospitals are intended to provide information about this possibility, meaning that more referrals for this transplant modality can be expected in the future.

b) Pseudo-islets

The project to optimize the production of pseudo-islets got off to a successful start. In collaboration with Kugelmeiers (manufacturers of the "Spherical plate 5D" patented by us), the function of pseudo-islets (artificially separated and re-combined islets) will be investigated (i.e. their oxygen consumption and mitochondrial function).

A clinical trial is in the works to improve transplant results by using pseudo-islets. It is a multi-center, randomized pilot study (Leiden (NL), Lille (F), Geneva and Zurich) in which the outcomes of conventional islet transplants will be compared with pseudo-islet transplants. If the safety of these plates can be demonstrated for islet transplantation, they may also be available for the stem cell transplantation with pseudo-islets.

On the research level at the University of Zurich, we carry out experiments with national and international partners, focusing in particular on cell-based immune modulation and the minimization of drug immunosuppression. There are new aspects in the exploration of nerve regeneration in transplanted extremities and controlling vasculopathy. We were the first group in the world to demonstrate an effect of mesenchymal stromal cells on the development of chronic rejection in allograft tissues.

Specific efforts for introducing programs for hand and face transplantation are under way at University Hospital Zurich in collaboration with the Transplantation Center and with the support of various international centers.

5.9. Reconstructive transplantation

Prof. Jan Plock

The history of reconstructive transplantation is now approaching the 20-year mark after the first successful hand transplant. The success over the past two decades has shown that the functional and immunological outcome is good overall, and the long-term graft survival rate is even better than with solid organ transplantation. However, these are reconstructive transplantations that do not save lives. All the more reason to pursue greater stability with minimal immune suppression.

6 Appendix

6.1. Staffing structure of the Transplantation Center 2017

Area	Directorate	Board of Trustees
Management	Head Prof. Nicolas Müller	Chairman Prof. Pierre-Alain Clavien
Heart	Prof. Frank Ruschitzka Dr. Andreas Flammer Prof. Markus Wilhelm	Prof. Frank Ruschitzka Prof. F. Maisano
Lungs	Dr. Macé Schuurmans Dr. Cécile Robinson Dr. Sven Hillinger	Dr. Christian Benden Prof. Walter Weder
Liver	Prof. Philipp Dutkowski vacant	Prof. Beat Müllhaupt Prof. Pierre-Alain Clavien
Kidney	Prof. Thomas Müller Dr. Olivier de Rougemont	Prof. Rudolf Wüthrich Prof. Pierre-Alain Clavien
Pancreas and islet cells	Prof. Roger Lehmann Dr. Olivier de Rougemont	Prof. Felix Beuschlein Prof. Pierre-Alain Clavien
Small bowel and multi-visceral transplantation	vacant	Prof. Pierre-Alain Clavien
Stem cells	Dr. Urs Schanz Dr. Antonia Müller	Prof. Markus Manz
Reconstructive transplantations	Prof. Jan Plock	
Palliative care	Prof. Nicolas Müller, Infectiology Dr. Mirjam Nägeli, Dermatology Prof. Josef Jenewein, Psychiatry Dr. Andre Richter	PD Urs Schwarz
Anesthesiology	Prof. Marco Zalunardo	Prof. Donat Spahn
Immunology/ HLA Typing	Dr. Jakob Nilsson	Prof. Onur Boyman
Care	Béatrice Biotti Kuno Betschart	Prof. Rebecca Spirig / vacant
Intensive care	Dr. Peter Steiger Dr. Stephanie Klinzing	Prof. Reto Schüpbach
Transplant coordination	Werner Naumer Lea Kinteh-Vinscherr	
Research	Prof. Rolf Graf	
Data and quality management	Uschi Schäfer	
Clinic manager	Karl-Heinz Heidenreich	
Dean		Prof. Rainer Weber

International Advisory Board

Heart	Prof. Mandeep R. Mehra, USA
Lungs	Prof. John Dark, UK
Liver	Prof. Xavier Rogiers, Belgium
Kidney	Prof. Prof. Christophe Legendre, France
Pancreas and islet cells	Prof. Eelco de Koning, Netherlands
Stem cells	Prof. Ernst Holler, Germany
Anesthesiology and intensive care	Univ. Prof. Michael Hiesmayr, Austria

Local Advisory Board of the Transplantation Center

Bellinzona	Ospedale San Giovanni	Prof. Claudio Marone
Chur	Cantonal/Regional Hospital	Dr. Reto Venzin
Faltigberg-Wald	Züricher Höhenklinik Wald	Dr. Matthias Hermann
Frauenfeld	Cantonal Hospital	Dr. Markus Hugentobler
Gais	Klinik Gais AG	Dr. Angelika Bernardo
Lucerne	Cantonal Hospital	Dr. Dominique Criblez
Seewis	Rehabilitation Center	Dr. Willhard Kottmann
St. Gallen	Cantonal Hospital	Dr. David Semela
Winterthur	Cantonal Hospital	Dr. Thomas Kistler
Zollikerberg	Zollikerberg Hospital	Dr. Jörg Bleisch
Zurich	Waid City Hospital	Prof. Patrice Ambühl

6.2. Transplant activities 2009–2018

Organ	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Heart total	9	12	14	11	10	16	14	10	17	16
Heart and kidney	0	0	0	0	1	1	0	0	0	0
Lung total	26	26	30	33	28	32	31	23	14	19
– of which DCD	0	0	0	2	5	5	5	3	2	3
Liver total	50	45	47	43	41	43	59	52	64	54
NBHD single-liver	44	41	39	39	27	28	44	34	37	37
– of which DCD	0	0	1	3	9	12	12	6	21	12
Living donor liver	4	2	7	4	2	2	2	7	5	4
Liver and kidney	2	2	1	0	2	1	1	4	1	1
Liver and small intestine	0	0	0	0	1	0	0	1	0	0
Kidney total	85	88	100	84	87	84	96	88	104	100
NBHD single-kidney	47	44	57	47	47	44	62	48	54	58
– of which DCD	0	0	6	9	6	11	6	9	18	4
Living donor kidney	29	30	32	22	22	22	23	22	23	30
Kidney and pancreas	7	9	9	10	11	5	3	4	4	5
Kidney and islet cells	0	3	1	1	1	1	1	1	3	2
Kidney and heart	0	0	0	0	1	0	0	0	1	0
Kidney and liver	2	2	1	0	2	1	1	4	1	1
Pancreas total	7	9	11	12	15	7	3	4	4	5
Pancreas only	0	0	1	2	3	2	0	0	0	0
Pancreas and kidney	7	9	9	10	1	5	3	4	4	5
Pancreas/small	0	0	1	0	1	0	0	0	2	0
Islets total	5	9	6	5	5	6	3	6	5	2
Islet cells only	5	6	5	4	4	5	2	4	2	0
Islet cells and kidney	0	3	1	1	1	1	1	1	3	2
Small	0	0	1	0	1	0	0	0	0	0
Stem cells total	–	119	147	128	139	151	150	150	148	174
– autologous	not in	65	95	34	34	34	34	34	34	34
– allogeneic	TPLZ 34	54	52	51	47	53	58	56	55	107

Multi-organ donations at UHZ	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Donors from UHZ	2	7	5	12	18	17	24	14	23	17
– of which DCD	0	0	3	6	9	12	12	4	17	5
Donors from ZH network	10	3	7	7	6	9	10	13	8	9
Total donors UHZ plus network	12	10	12	19	24	26	34	27	31	26

6.3. Outcome of organ transplantations

The results have been published nationwide for all centers since 2013. This is in accordance with the Transplantation Act and legal regulations. The report is publicly available at www.stcs.ch. The benchmarking project is an important upcoming task, because the absolute figures can only be compared relatively.

6.4. International Advisory Board (IAB) Meeting 2018

Nicolas Müller, Head of Transplantation Center

Minutes of the International Advisory Board Meeting 2018

Friday, November 16, 2018, 10 am–12 pm

Im Turm (restaurant), Zurich

Present:

On behalf of IAB: Prof. J. Dark, Prof. E. de Koning,
Univ. Prof. M. Hiesmayr

Excused: Prof. E. Holler, Prof. Ch. Legendre,
Prof. Xavier Rogiers, Prof. Holler

On behalf of the Board of Trustees: Dr. C. Benden,
Prof. P. A. Clavien, Prof. M. Wilhelm (for Prof. F. Maisano),
Prof. B. Müllhaupt, Prof. F. Ruschitzka, Dr. R. Schüpbach,
Prof. W. Weder. Prof. Dr. Müller. Dr. U. Schanz (for Prof.
Manz)

Excused: Prof. O. Boyman, Dr. U. Schwarz, Prof. R. Weber,
Prof. Beuschlein, Prof. R. Wüthrich

On behalf of the Board of Trustees, N. Müller welcomes the new members of the International Advisory Board.

The focus of the discussions is on donor development and the TPLZ annual report. The various programs are then briefly presented by the respective representatives, with comments from IAB members. This is followed by an intensive discussion on the role of the IAB, with proposals made on various sides. John Dark in particular would like to see a structured discussion of the individual programs.

Lunch is served after the meeting.

Minutes
N. Müller

6.5. Scientific publications 2018

1. Mouraux S, Bernasconi E, Pattaroni C, Koutsokera A, Aubert JD, Claustre J, Pison C, Royer PJ, Magnan A, Kessler R, Benden C, Soccacal PM, Marsland BJ, Nicod LP; SysCLAD Consortium. Airway microbiota signals anabolic and catabolic remodeling in the transplanted lung. *J Allergy Clin Immunol* 2018;141:718-729. PMID: 28729000
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5. Greer M, Berastegui C, Jaksch P, Benden C, Aubert JD, Roux A, Lhuillier E, Hirschi S, Reynaud-Gaubert M, Philit F, Claustre J, LePalud P, Stern M, Knoop C, Vos R, Verschuuren E, Fisher A, Riise G, Hansson L, Iversen M, Hämmäinen P, Wedel H, Smits J, Gottlieb J, Holm A. Lung transplantation after allogeneic stem cell transplantation: A pan-European experience. *Eur Respir J* 2018;51:1701330. PMID: 29444913
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8. Cottini SR, Brandi G, Pagnamenta A, Weder W, Schuepbach R, Béchir M, Huber LC, Benden C. Pulmonary hypertension is not a risk factor for grade 3 primary graft dysfunction after lung transplantation. *Clin Transplant* 2018;32:e13251. PMID: 29707826
9. Elmer A, Birrer M, Weiss J, Aubert JD, Benden C, Inci I, Krüger T, Soccacal PM, Immer FF. Extended-criteria donors in lung transplantation in Switzerland: an evaluation of two adapted lung donor scores. *Swiss Med Wkly* 2018;148:w14614. PMID: 29689119
10. Neofytos D, Chatzis O, Nasioudis D, Boely Janke E, Doco Lecompte T, Garzoni C, Berger C, Cussini A, Boggian K, Khanna N, Manuel O, Mueller NJ, van Delden C; Swiss Transplant Cohort Study. Epidemiology, risk factors and outcomes of invasive aspergillosis in solid organ transplant recipients in the Swiss Transplant Cohort Study. *Transpl Infect Dis* 2018;20:e12898. PMID: 29668068
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6.6. Transplantation awards 2018

In November 2018, the Zurich Transplantation Center awards were held for the eighth time during the fall symposium. Because no laboratory-related applications were submitted this year, the decision was made to give out two clinical research awards. The awards were once again generously sponsored by Astellas Pharma and were presented by Prof. Markus Wilhelm, member of the Board of Directors' Awards Committee.



Clinical trial award Dr. Corinne Widmer

Transient paraproteinemia after allogeneic hematopoietic stem cell transplantation is an underexplored phenomenon associated with graft versus host disease



Clinical trial award Dr. Xavier Muller

Outcomes of liver transplantations from donation after circulatory death (DCD) treated by hypothermic oxygenated perfusion (HOPE) before implantation



Merit award

POZH, Projekt Organspende Zürich,
UHT medical students

6.7. Professional development program 2018

6.7.1. Fall symposium 2018 "Limits and chances"

Information

When
Friday, November 16th, 2018
12.15 – 18.00 h

Location
University Hospital Zurich
Great Lecture Hall East
Gloriastrasse 29
8091 Zurich

Organization and contact
University Hospital Zurich
Transplant Center
Katharina Ledermann
+41 44 255 14 79
katharina.ledermann2@usz.ch
www.transplantation.usz.ch

Credits

SGAIM	3
SGN	3,5
SGGSSG	1
SGC	4
SGINF	3,5
SGDV	3
SGHC	2
SGP	tbd
SGAR	tbd
SGI-SSMI	tbd
SGK	tbd

Directions
Tramlines 6, 9, 10 to stop
ETH / Universitätsspital

Registration
Please email your registration by
Friday, November 9th, 2018 to
transplantationszentrum@usz.ch



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12th Annual Symposium of the Transplant Center
«Limits and chances»

Friday, November 16th, 2018
12.15 – 18.00 h
Great Lecture Hall East
University Hospital Zurich

UniversityHospital
Zurich

Program

12.15 h **Buffet Lunch (Dick & Davy)**

13.15 h **Welcome**

13.20 h **Transplant Center Zurich: Annual Report**
Nicolas Mueller

Part 1: Limits and chances
Chair: Antonia Müller

13.40 h **Kidney: Recent data from the CTS study**
Caner Süsal

14.00 h **Liver: Evaluation of quality in a liver transplant center**
Xavier Rogiers

14.20 h **Lung: Non-tuberculous mycobacteria and rare fungi:
Are they a contraindication for listing?**
Oriol Manuel

14.40 h **Dermatology: Immune checkpoint inhibitors in sOTR with
skin cancer**
Mirjam Nägeli, Joanna Mangana

15.00 h **Heart: Marginal donors – where are the limits?**
Markus Wilhelm

15.20 h **Hematopoietic Stem Cell Transplantation:
Moving the limits in cell transplantations**
Antonia Müller

15.40 h **Coffee Break (Dick & Davy)**

16.00 h **Awards Transplant Center Zurich**
Markus Wilhelm, for the Award Committee

Part 2: Borel-Stähelin Lecture
Chair: Thomas Müller

16.20 h **Molecular diagnostics in transplantation –
lessons learned and added value**
Philip Halloran

17.00 h **Summary**
Nicolas Mueller

17.05 h **Apéro (Dick & Davy)**

Chairs and Speakers

Prof. Philip F. Halloran, MD, PhD, FRCP (C), OC, FRSC
Director, Alberta Transplant Applied Genomics Center
Professor of Medicine & Medical Microbiology and Immunology
University of Alberta, Edmonton, Alberta, Canada

Dr. Joanna Mangana
Senior Attending Physician,
Department of Dermatology
University Hospital Zurich

PD Dr. Oriol Manuel
Infectious Diseases Service
and Transplantation Center
University Hospital of Lausanne (CHUV)

PD Dr. Antonia Müller
Senior Physician,
Department of Hematology
University Hospital Zurich

Prof. Dr. Nicolas Mueller
Head Transplant Center
Senior Attending Physician,
Department of Infectious Diseases
University Hospital Zurich

Prof. Dr. Thomas Müller
Senior Attending Physician,
Department of Nephrology
University Hospital Zurich

Dr. Mirjam Nägeli
Senior Attending Physician,
Department of Dermatology
University Hospital Zurich

Prof. Dr. Dr. h.c. Xavier Rogiers, FEBS (hon)
Chairman Transplantation Center,
UZ Gent, Belgium

Prof. Dr. Caner Süsal
Senior Attending Physician
Head of Antibody Laboratory and
Coordinator of the CTS Study
Institute of Immunology
University Hospital Heidelberg,
Germany

Prof. Dr. Markus Wilhelm
Senior Attending Physician,
Department of Cardiovascular Surgery
University Hospital Zurich

6.7.2. Monthly seminar: "Hot topics in transplantation" (TNT) 2018



Program

TNT – Hot Topics in Transplantation

5.15 – 6.00 pm, kleiner Hörsaal OST, HOER B5

- 26.02.2018** **Neue Regelungen im 2018: Gesetz, Verordnung, SAMW-Richtlinien**
Dr. med. Renato Lenherr
OA Chirurgische Intensivmedizin, UniversitätsSpital Zürich /
Ärztlicher Leiter Donor Care Association – Organspende interkantonal
Host: Prof. Dr. Nicolas Müller
- 28.05.2018** **Einheitliche peritransplantäre Immunsuppression?**
Prof. Dr. Roger Lehmann
Klinik Endokrin-Diabetologie-Ernährung, UnisversitätsSpital Zürich
Dr.med. Rolf Schüpbach
Institut für Anästhesiologie, UniversitätsSpital Zürich
Host: Prof. Dr. Roger Lehmann
- 25.06.2018** **Fehlerkettenanalyse CIRS und Klinisches Risikomanagement**
Dr. phil. Saskia Huckels-Baumgart
Qualitätsmanagement & Patientensicherheit, Spitaldirektion USZ
Host: PD Dr. Urs Schanz
- 27.08.2018** **Pharmaökonomie**
Leila Baumann
Senior Market Access Manager, Astellas Pharma AG
Host: Prof. Dr. Nicolas Müller
- 24.09.2018** **Infektiology: Adaptive Immune Transfer**
Prof. Dr. Nina Khanna
Leitende Ärztin, Leitung Transplantationsinfektiologie und ambulante Infektiologie,
Forschungsgruppenleiterin, Universitätsspital Basel
Host: Prof. Dr. Nicolas Müller
- 29.10.2018** **Pharmakomonitoring**
PD Dr. Alexander Jetter
Klinik für Pharmakologie und Toxikologie, UniversitätsSpital Zürich
Host: Prof. Dr. Thomas Müller

Organisation

PD Dr. Sven Hillinger
Prof. Dr. Roger Lehmann
Prof. Dr. Nicolas Müller
PD Dr. Urs Schanz
Prof. Dr. Thomas Müller

Auskunft

Klinik für Infektiologie
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