Minutes of Nordic liver Transplant Group Meeting, Tallinn, 13th of March 2018

• Welcome (Virge Pall)
The meeting was opened, NLTG expressed gratitude for being invited and having the meeting in Tallinn. Allan Rasmussen was asked to lead the meeting.

• Minutes from last NLTG meeting in Helsinki (Helena Isoniemi)
Apologize for sending out the minutes late, the minutes were approved.

• Centre wise update reports (all centres)
Tartu: Good start with 4 liver transplantations so far in 2018.
Helsinki: 15 liver transplants in 2018. They are preparing their first Klatskin tumor patient for transplantation. Has done their 2nd face transplantation, the donor operation took 10 hours.
Stockholm: 12 transplantations in 2018. DCD pilot project has started in Sweden, will not include livers only kidneys and lungs.
Gothenburg: 16 transplantations in 2018. Shortage of nurses. A new unit for intestinal failure covering adult and paediatric patients will open soon under the gastroenterology department.
Copenhagen: 8 transplantations in 2018. Preparation to start a DCD program in Denmark has begun.
Oslo: 16 transplantations in 2018. Have met some resistance against the DCD program, the program is up for evaluation and is temporarily on hold.

• Urgent calls, diagnosis etc (Ilse Duus Weinreich)
An update on the presentation shown at last NLTG meeting was presented.
In the last 10 years (2008-2017) the mean number of urgent calls per year has been 40 (min 32, max 48) and the level seems to be rather stable.
In the same time period 60 of 401 (15%) patients changed waiting list status from urgent to transplantable/not transplantable. Transplantable includes patients where urgent status is change from urgent to kind request.
Patients on urgent call in the 10-year period were mainly listed with primary diagnosis ‘Acute hepatic failure’ and re-transplantation diagnosis ‘Primary non-function (≤7 days)’, ‘Primary dys-function (>7 days)’ and ‘Arterial thrombosis’. Around 30 re-transplantation diagnoses are missing and some registrations are wrong. The office will try and get this data (corrected).

• Presentation of payback registration in YASWA (Ilse Duus Weinreich)
The new payback registration system in YASWA introduced December 1, 2017 was presented.
With the new registration system
- it is easy to access and see balance between centers;
- you can register refusals of payback offers;
- you can calculate time between export and import/payback;
- and investigate if payback is done with first available liver.
5 paybacks have been registered since the system started, in one of these cases time between export and import/payback was 405 days. At the time of the meeting 32 cases were waiting for payback, waiting time > 6 months was found in 17 cases. Suggestions for payback donors in 6 of these cases were presented. The goal is to try and have these very old cases payed back before the next meeting.

- **NLTR annual report 2017 (Espen Melum)**
  At the end of 2017 the registry holds 7618 recipients. The total annual number of transplantations might have reached its top level as the number in 2017 (410) was almost the same as in 2016 (419). At the same time entries on waiting list seems to have evened out. Number of deaths on the waiting list in 2017 was the lowest ever. To be able to make valid intention to treat statistic it is important, that all patients in NLTR are updated when it comes to death. Also, those that are not transplanted, each centre must go back and investigate if this is in fact done. Median waiting time before transplantation goes from 17,5 – 91,5 days depending on centre. In 2017 only 56% of the patients on urgent call were transplanted within 3 days after urgent listing. It was discussed if the 3-day limit should be kept and if only AB0 identical livers should be exchanged for these patients. It was decided that NLTG must prepare data for these topics and bring it up at the next NLTG meeting. In 2017 donors were slightly younger than in previous years, mean age was 50,4 and median age 54,5 years. Survival of transplantation has improved in the most recent 5-year period. Data quality in the registry has improved in the last years.

- **Status on NLTR → ELTR data export (Espen Melum)**
  A data exchange authorization letter between NLTR and ELTR to be signed by each centre was presented. Two issues in the form have been up for discussion:
  - ELTR would like to have data twice a year, on January 15th and July 15th. NLTR suggested sending data once a year in April, when quality checks and updates have been completed. However, ELTR publishes statistical reports twice a year, thus it has been agreed upon that NLTR will send data twice a year, knowing that data might not be fully updated. New data will overwrite old data.
  - The other point was follow up on historical data in ELTR and solving data differences between NLTR and ELTR. NLTR will make retrospective data available to ELTR but has at the same time stated that it will not be possible to go through all the old data and solve discrepancies. Espen will send the authorization letter to each center for comments and it should be signed and returned to him no later than April 1st 2018.

In 2017 NLTR was modified and new variables were introduced to comply with data export to ELTR.
January 31, 2017 Ilse sent the first test export of data to ELTR for their evaluation. No response on this yet. Therefore, it’s not possible to tell the exact date when the data exchange will start. Ilse will get back to the centers when ELTR is ready to receive the export of data.

- **Update on present studies**
  - Donor Specific HLA alloantibodies in Liver Transplantation: a prospective blinded multicentre prognostic study (*Allan Rasmussen*)
    It took longer to get ethical permission than expected. One lambda has agreed to sponsor the HLA antibody screening kits for the Luminex. Furthermore, applications have been sent for financial support from Scandiatransplant, which have been granted (220.000 DKK + 36.000 DKK). The rules for applying for Scandiatransplant grants are currently under revision. The patients in Oslo are selected prior to transplantation which brings a problem in this study, thus Oslo might not be able to participate. The study nurse/coordinator will prepare and send an invoice every ½ year to each centre. It will include patients enlisted which have had 3 months screening performed, at the moment 700 DKK for each patient.
  - Molecular Diagnostics of Acute Rejection and Chronic Pathologies after Liver Transplantation (*Allan Rasmussen*)
    Collaboration with Alberta? NLTG will be one of several groups, thus only have a minor impact on the study. Maybe better to focus on alternative independent studies.
  - A1AT study (*Ahmad Karagadi – not present*)
    Carl Jorns informed that study is still in the planning phase
  - Liver perfusion machine (*Greg Nowak – not present*)
    William Bennet informed that study has not started, discussion is ongoing about a common Nordic collaboration, selection of machine type, the need of funding, background literature to support method and study etc. Discussion of advantages and disadvantages of different liver perfusion machines (OrganOx, Organ Assist etc.) and techniques (hypothermic, subnormothermic and normothermic) took place.
  - Survey on donor operation technique (*Antonio Romano - not present*)
    Carl Jorns informed that survey will be sent out to the centres soon. When this is done please help to distribute the survey to all organ procurement surgeons.

- **New study proposals**
  - Cancer study - reasons for the unexpected low risk for prostate and breast cancer among liver transplanted patients (*Arno Nordin*)
    Preliminary planning has started, predict that it will be possible to include around 100 cases from already accumulated data in the overall study.
Protocol draft for Scandinavian standardisation and monitoring of liver transplantation in non-respectable hilar cholangiocarcinoma (Nicolai Schultz)

Elements for the study protocol were discussed. This included suggestion for patient inclusion and exclusion criteria, adjuvant and neoadjuvant treatment, study period and number of patients. Work will continue on a common protocol.

Survival after liver transplantation in the periods before and after the introduction of DAAs in patients with HCV-infection (Espen Melum)

Statistical analysis has been approved. Data will be extracted from the Scandiatransplant database and additional information will be collected.

Next meeting date
The meeting will be held in Copenhagen as a two-day meeting on 9-10 of October, 2018; Nordic Pediatric Liver Transplant Group (NPLTG) meeting on day 1 and Nordic Liver Transplant Group (NLTG) meeting on day 2.

Any other business and closing remarks
Posters for the upcoming STS meeting in Oslo, 2-4 of May, 2018 were distributed [www.sts2018.no](http://www.sts2018.no)

List of meeting participants
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Eija Tukianinen, Helsinki University Hospital
Helena Isoniemi, Helsinki University Hospital
Bo-Göran Ericzon, Karolinska University Hospital
Carl Jorns, Karolinska University Hospital
Espen Melum, Oslo University Hospital
Katrine Engesæter, Oslo University Hospital
Monika Olofsson Storror, Oslo University Hospital
Morten Hagness, Oslo University Hospital
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Allan Rasmussen, Copenhagen University Hospital, Rigshospitalet
Carina Lund Sørensen, Copenhagen University Hospital, Rigshospitalet
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Bengt Gustafsson, Sahlgrenska University Hospital
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Per Lindner, Sahlgrenska University Hospital
William Bennet, Sahlgrenska University Hospital
Christina Wibeck, Sahlgrenska University Hospital
Andres Tein, Tartu University Hospital
Janika Kuus, Tartu University Hospital
Riina Salupere, Tartu University Hospital
Virge Pall, Tartu University Hospital (writer of minutes)
Ilse Duus Weinreich, Scandiatransplant (writer of minutes)