



Minutes from the Nordic liver Transplant Group

Gothenburg 28th March, 2019

(Action points marked yellow)

William Bennet open and welcomed over 30 registered participants to Valand. Finn Björn Johansson from Astellas was acknowledged as a contributing sponsor of the meeting venue and the lunch.

The minutes from NLTG meeting in Copenhagen October 9th 2018 were briefly reviewed and no adjustments were recommended.

Update Scandia Transplant: *Frank Pedersen*

Frank Pedersen gave a presentation how the YASWA database can be used to evaluate payback status and how long paybacks take. The overall understanding is that the payback organization works very well, much thanks to the great effort of the organ donation coordinators. The principle remains that all payback debts should be offered with the first available blood group identical liver within the particular donor groups. Pediatric donor livers are to be repaid with standard group livers (<65 yrs.) as agreed on at the previous meeting. Reasons for a payback decline from the receiving center is documented. If a center declines numerous suitable offers for a particular payback despite appropriate recipient on the waiting list the need for the payback may be questioned and possibly cancelled after agreement between the two centers. In October of 2018, 11 paybacks remained that had exceeded six months but now only eight paybacks remains that have exceeded six months. Many of these are due to debts to Tartu who have had a lack of appropriate recipients. Frank also showed a new service on the Scandia Transplant homepage which is that everyone now can access Power Point data slides showing transplant activity and outcome.

Center wise update: *(All)*

All centers shortly presented their liver transplant activity the previous year. In 2018 **Gothenburg** performed 86 LTx to 86 patients of which one was pediatric. **Helsinki** reported that Arno Nordin now is the head of the transplant unit after that Helena Isoniemi has retired. They performed 66 LTx 2018 and are planning to start a DCD program in the future. **Oslo** performed 94 LTx of which 12 were pediatric (one LD). They also anticipate to resume their DCD program during 2019 and have plans to start using liver perfusion in evaluating graft functionality. **Stockholm** reported 77 Ltx od which 9 were pediatric. **Copenhagen** performed 43 Ltx 2018 and **Tartu** 10 Ltx.

Status on NLTR *(Espen Melum)*

Espen Melum gave a summary presentation of the 2018 NLTR annula report. In brief, 2018 a total of 377 were performed Ltx (2017: 410). There was a substantial drop in the number of re-transplantations performed during the past 2 years with only 26 re-transplantation performed 2018

(a decrease by 41%). There is a trend for the median waiting time (WT) to LTx to increase across all centers with blood group O having the longest WT. Hepatitis C as indication for Ltx has dropped markedly and only accounts for 2,9% of the indications 2018. Hepatocellular cancer is the number one indication (17,6%) followed by PSC (15,3%). The proportion of recipients > 60 years also continues to increase and now account for more than 1/3 of the recipients. There were 17 permanent withdrawals and a total of 9 deaths on the waiting list which corresponds to < 5% waiting list mortality during 2018. Encouraging is that there is an improvement in patient survival even in the most recent 5-year period.

It was agreed that the reason for the permanent withdrawals need to be documented and followed up with regards to whether they have eventually died or not. It was also agreed that we should present intention-to-treat (ITT) survival curves rather than only survival after LTx.

With regards to progress on data transfer from NLTR to ELTR the overall plan is that Ilse will in cooperation with Vincent Karam (ELTR) seek to link missing linkage between patients in NLTR and ELTR. Furthermore, any discrepancies in historical data will **not** be correct, as this will be too time consuming and probably not be of much value. William will circulate a letter to be signed by the representatives for each program to clarify this to ELTR. This letter will thereafter be added as an appendix to the minutes of the meeting.

The 2018 annual data report:

<http://www.scandiatransplant.org/resources/AnnualScandiatransplantdatareport2018.pdf>

HLA typing in liver transplantation?

HLA typing in liver transplantation was briefly discussed with regards to different policies applied at different centers. Copenhagen try to avoid repeat mismatches in re-transplantations settings. Oslo have a general approach not to re-transplant a recipient if the recipient has detectable DSA. Gothenburg and Stockholm do not use HLA typing in liver allocation for transplantations. HLA-typing and outcome data from Denmark will be presented at the next meeting.

Subacute liver Failure and high urgency listing: (Inga-Lill Fris Liby/William Bennet)

Subacute liver failure and high urgency listing was discussed following a short presentation by Gothenburg hepatologist Inga-Lill Fris Liby on subacute liver failure. It was agreed that patients diagnosed with **subacute liver failure can** be listed on a regional waiting list for a liver transplant with the intention to transplant the patient with a regional donor. If/when the patient deteriorates to the degree that a high urgent status is reached the patient **can** be listed on the Scandia Transplant high urgent list.

ABO incompatible ltx for children < 2 yrs: (William Bennet)

William Bennet presented data illustrating that pediatric recipients < 2 years without or very low ABO –titers can be transplanted with ABO- incompatible liver grafts with equivalent graft- and patient survival compared to ABO- compatible/identical grafts. It was agreed that for pediatric recipients < 2 yrs., with absent or low anti- ABO titers (< 1:16) will be offered ABOi livers grafts if the recipient center states this on the common pediatric waiting list **and** if no other suitable ABO compatible pediatric recipient is listed or has been declined by that center.

Guest lecture (Prof. Norman Kneteman)

Prof. Norman Kneteman from the University of Alberta, Edmonton in Canada held a guest lecture entitled *Optimized immunosuppression for Liver Transplantation with HCC*. He presented evidence that there is convincing support for using mTOR inhibitors (Sirolimus/Everolimus) in patients transplanted with HCC in order to prolong both recurrence free- and patient survival.

“New” intestinal failure and transplantation unit in Gothenburg.

Gutaf Herlenius gave a short presentation of the newly established intestinal failure and transplantation unit in Gothenburg.

Donor characteristic data among the Nordic centers:

William Bennet presented some data on the donor age and CIT differences between Nordic centers. Donor parameters are important predictors of outcome and he opened up a discussion whether we should become more transparent with regards to comparing donor characteristics (eg. Age, CIT...) and to compare outcome in order to facilitate “learning from each other”. No one had any objections to being transparent with regards to donor characteristics such as CIT. With regards to outcome Espen M suggested that survival data for each center (upon request) can be compared to the overall outcome within the registry (survival overall, by diagnosis, age group etc....).

Allan R will attempt to establish a predictive donor risk outcome model using available data from the NLTR. With such a model a predicted CIT can be used to predict outcome for a particular donor.

Nordic standardized organ procurement - work in progress?

Since Antonio Romano was absent this point was postponed.

DCD registration proposal in Yaswa: (Monica)

With more centers are planning for DCD liver transplantation there is need for expanding the donor parameters associated with DCD organ procurement. As for DBD donors the data will be entered into YASWA and Transplant coordinator Monica from Oslo presented examples of parameters and how the parameters for the DCD donors registered within YASWA. The complete list of parameters to be registered is not complete yet but will be shared among the NLTG center for comments in the near future.

Update on ongoing studies

DSA study Allan Rasmussen > 500 patients included, interim analysis being done and possible the power of the study can be reduced. Allan anticipates to have interim analysis data to present at the next NLTG meeting in Oslo.

The Swedish Alcohol Study is complete and a first publication on the effect of alcohol consumption after LT on overall mortality has been submitted. The outcomes was updated by SU hepatologist Andreas Schult.

Cholangiocarcinoma Nicolai Schultz - postponed

Factors related to waiting list mortality Carl Jorns- work in progress.

Results of Hepaticoduodenostomy in Norway/Denmark Pål Dag Line/ Nicolai S

Postponed. We strongly encourage the analysis of this cohort of liver transplanted patients which is likely to represent the largest number of patients transplanted with a biliary reconstruction with hepaticoduodenostomy with more than 150 cases.

New study proposals:

Follow-up of CT scans on donors: An improvement in liver allocation? William Bennet
Since the last meeting many centers have started to routinely perform CT scans on all donors. The general impression has been that this has had a positive effect on donor evaluation and has in many instances led to allocation of the liver to shorter recipient. Some cases of malignancy have been identified and prevented unnecessary donor runs. We now plan to initiate a common evaluation of the impact of CT scans on the donation process. **A questionnaire will be produced for all centers to answer after each donor evaluation.** The donation coordinators will collect the data after the allocation process is complete and will address issues related to impact of the CT scan. **A draft of the questionnaire will be circulated before the next NLTG meeting.**

Liver transplantation for grade 4 portomesenteric thrombosis- Nordic collaborative study? *Fredrik Åberg/William Bennet.*

This was a proposal to collect the Nordic experience on transplanting in the presence of grade 3 & 4 portomesenteric thrombosis. Also, there could be a benefit to consider establishing Nordic guidelines how to evaluate these rare but difficult patients and have common follow-up of this group of patients. One could also try to have a scientific approach on order to evaluate blood flow and pressure changes pre- and post-transplant with non-physiological portal revascularization. Such a **protocol would have been presented and discussed more at future meetings.**

Hepatitis C donors - Maria Castedal

Most centers are now starting to utilize hepatitis C positive donors. All centers have recipients consented for these transplants at listing. **Maria C suggested that we should maybe have a Nordic follow-up of these transplants. How will have to be decided and Maria will have to come with a suggestion in the future.**

ESOT Copenhagen 2019 – An update *Allan Rasmussen*

ESOT Copenhagen 2019 – An update Allan Rasmussen gave a brief update and report on the progress with regards to the planning of ESOT in Copenhagen in September 2019. There have been over 1000 registered abstracts and the selection has been started. There will be a three awards for the best abstract with a possible honorary of 10.000,- Euro.

Next meeting: Oslo October 22nd (NPLTG) and 23rd (NLTG)

William Bennet & Christina Wibeck

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