Liver exchange and pay back rules - revised Nov. 18, 2021

High urgent call (HU)
- An acute liver failure patient who is at a risk to die within few days (no prior liver disease)
- Need for re-transplantation within 2 weeks after transplantation (includes primary non-functioning graft)
- If several HU calls exist at the same time, the first one has priority over later HU call. This is also true if the second centre has a local donor
- Within 72 hours after HU call, every centre has an obligation to offer available livers for the recipient centre
- The first available donor liver with compatible AB0 blood group must be offered to recipients on HU call.

Visceral and paediatric liver recipients
- A paediatric patient is defined as <18 years at entry on liver waiting list
- When other than identical ABO blood group is accepted it must be specified on the paediatric liver recipient in the database. Request for other than identical ABO blood group should only be used in elected cases.
- A paediatric donor liver should be used for a visceral or paediatric liver recipient
- A paediatric donor liver, a splitable liver or a segment can be used without any limitation for a visceral or paediatric liver recipient in own centre.
- If there is no visceral or paediatric liver recipient in own centre, the paediatric or splitable liver has to be offered to defined AB0 acceptable visceral or/paediatric liver recipients in other centres as a whole or a split liver, if this is sufficient for the recipient.
Prioritized as:
1. Paediatric liver recipient with Hepatoblastoma or Hepatocellular Carcinoma (Liver cancer diagnosis must be defined in the database) or/and on kind request. Visceral recipient with End Stage Liver Disease.
2. The visceral or paediatric liver recipient with the longest waiting time on the waiting list

Kind request
- Should be used only for very selected cases
- HU call 72-hour limit has exceeded without transplantation and the patient is still transplantable
- Rapidly deteriorating acute-on-chronic patient according to consideration of the centre
- There is no obligation to send a liver from other centres, this is voluntary

Donor liver
- Quality groups:
  - Paediatric liver
    - <18 years
  - Splitable liver:
    - < 51 years
    - BMI < 26
    - < 4 days in ICU
    - ALT / AST < 3 x normal
  - Normal liver:
    - Any other liver ≤ 65 years
    - Donor > 65 years
- Donor liver offers should whenever possible include AP measurements and CT scan description/pictures and as many other details about the graft as possible.
Payback after exporting liver for urgent call, paediatric, split, visceral and kind request

- A payback must be offered with the first available AB0 blood group identical liver unless there is a suitable recipient on urgent call or the visceral and paediatric liver list.
- A payback can be performed with a liver of another blood group if mutually agreed on between the two centers.
- It is allowed to reject the liver offered, however rejection cause must be noted.
- Payback can be postponed after mutual agreement between responsible surgeons and reasons for this must be noted.
- You are obligated to offer payback according to liver quality groups as specified in the table:

<table>
<thead>
<tr>
<th>Payback offer →</th>
<th>Paediatric</th>
<th>Splitable</th>
<th>Normal</th>
<th>Donor &gt; 65 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>↓ Received liver</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paediatric</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Splitable</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Normal</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Donor &gt; 65 years</td>
<td></td>
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<td>X</td>
</tr>
</tbody>
</table>

Reason for not using the liver for a visceral or paediatric liver recipient
If a liver is not used for a visceral or paediatric liver recipient, the reason for this shall be recorded in Scandiatransplant according to the following categories.
- The donor did not fulfil liver split criteria
- Logistics
- No visceral or paediatric liver recipient on the waiting list
- Medical
- Offered but refused by recipient center
- Other. Specify:

Liver rotation rules (surplus livers):
- When a surplus liver is available other centres will be contacted
- All centres must respond positive/negative to the offer within 30 minutes,
- The centre at the highest position on the rota list accepting the surplus liver will receive it
- Only the accepting centre is rotated and the donor centre is responsible for the rotation a.s.a.p.
- Whether a surplus liver is offered as a whole or a split liver the accepting centre must be rotated
- Payback livers do not cause any changes in rota list
- Rotation has to be done when a surplus liver is offered and accepted by the receiving centre of another country.

Accepted April and October 2021 and effective from December 14th 2021
On behalf of Scandiatransplant liver centres and NLTG

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