Content of talk

• History of liver transplantation at Seattle Children’s
• Outcomes of liver transplantation focusing on more recent times
• Introduce all the team necessary to run our liver transplant program
Early History

• 1st Liver transplant at SCH in 1990
• Up until the end of 2004 95 transplants in 85 patients
Recent History

- January 2005 until this month 176 liver transplants in 167 patients
- Of the 159 children transplanted more than 1 year ago – 1 year survival is 97%
- Children, teens and some now adults getting on with their very productive lives
Retransplants

A liver allograft can fail and necessitate retransplantation
May fail early < 3 months due to immediate complications
May fail late due to scarring of the allograft due to chronic rejection or biliary problems
Of the 176 transplants since 2005

- 14 were first retransplants
- 0 subsequent retransplants
- 5 had primary transplant prior to 2005 – all currently surviving
- 9 had 1st transplant since 2005
  - 6 had early retransplantation
  - 7 patients survived
## Liver transplant survival rates

This table compares survival rates at Seattle Children’s with the national average for pediatric patients. Pediatric patients are children who are not yet 18 years old.

<table>
<thead>
<tr>
<th>Survival Rate</th>
<th>Category</th>
<th>Seattle Children’s</th>
<th>National Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>96.55%</td>
<td>1-year patient survival</td>
<td>96.24%</td>
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<tr>
<td>96.55%</td>
<td>1-year patient survival</td>
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<tr>
<td>90.91%</td>
<td>1-year graft survival</td>
<td>91.48%</td>
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<tr>
<td>90.91%</td>
<td>1-year graft survival</td>
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<tr>
<td>100%</td>
<td>3-year patient survival</td>
<td>92.64%</td>
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<tr>
<td>100%</td>
<td>3-year patient survival</td>
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<tr>
<td>95.00%</td>
<td>3-year graft survival</td>
<td>85.67%</td>
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</tr>
<tr>
<td>95.00%</td>
<td>3-year graft survival</td>
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<tr>
<td>29</td>
<td>Number of patients evaluated</td>
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<tr>
<td>29</td>
<td>Number of patients evaluated</td>
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<td>33</td>
<td>Number of transplants evaluated</td>
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<td>Number of transplants evaluated</td>
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<td>38</td>
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<td>Number of patients evaluated</td>
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</tbody>
</table>

These data are for liver transplants performed in the following periods:

- 1 year survival: January 1, 2014 – June 20, 2016
- 3 year survival: July 1, 2011 – December 31, 2013
Why do we do liver transplant in children

- Chronic liver disease
  - Decompensated and life-threatening
  - Inadequate quality of life
- Acute liver failure
- Unresectable liver tumors
- Metabolic diseases – due to defective liver metabolism which leads to damage in organs away from the liver
  - Brain injury
  - Heart failure
  - Kidney failure
Types of Liver Transplantation

- Anatomical type
  - Whole liver allograft
  - Segmental allograft

- Donor type
  - Deceased donor
  - Living donor

- Blood match
  - Identical
  - Compatible
  - Incompatible
How do we achieve this amazing undertaking?

TEAM WORK!
Surgeons
Hepatologists
Nurse Coordinators

[Images of nurse coordinators in group and individual photos]
Nurse Practitioners
Transplant Administration
Pharmacists

• Tom Nemeth
• Shiho Fukasawa
• Casey Moore
• David Newland
• Jennifer Pak
• Hyacinth Wilson
Dietitians

• Melissa Mortensen
• Nila Williamson
• Cheryl Davis
Social Work
Liver transplant Anesthesia

- Michael Collins
- Mali Hetmaniuk
- Vincent Hsieh
- Agnes Hunyady
- Daniel Rubens
Interventional Radiology

- Eric Monroe
- Giri Shivaram
- Kevin Koo
- Denis Shaw
PICU, Nephrology, ID

- Tom Brogan MD
- Jodi Smith MD
- Thor Wagner MD
All the Nurses and support staff throughout the hospital

- Operating room
- PICU
- Surgical floors
- GI lab
- Labs
- Radiology & ultrasound
- Hospital Administration
• UNOS reviews
  • Every 3 years (if well behaved)
  • Scheduled and announced

• Centers for Medicare & Medicaid Services (CMS)
  • Unannounced – approximately every 3-5 years
  • Descended upon us about 3 weeks ago
  • No deficiencies
Our mission: Providing Hope, Transplanting Lives