Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

utilized DBD donors- 1 pediatric (age 8yrs), 1 adult bilobar cut down and 1 adult intact (ages 45 & 29 yrs) with a mean W/L time of 143d, median 66d. The 6 pLTx recipients of DCD lungs were median age 15 years with cystic fibrosis (n=4) and pulmonary hypertension (n=2, with 1 on ECMO). All 9 pLTx are alive at a median of 487d. 1 patient is BOS 2. There was 1 W/L death (182d) in 2013- a sensitized potential re-LTx age 16yrs.
Since 2006 an additional 10 pediatric DCD donors (median age 16yrs) have been used for aLTx, 7 since 2012. The 10 adult recipient LTx indications included COPD (n=4), cystic fibrosis/bronchiectasis (n=3), reLTx, ILD and pulmonary hypertension (n=1 each), with a mean age of 46 yrs and W/L time of 230d, median 97d. All these 10 aLTx are alive at a median of 1320d. 1 patient is BOS 1 and 1 BOS 3.
Conclusion: Controlled DCD provide a significant and quality donor lung pool to increase LTx opportunities for pediatric patients with severe lung disease. With lives at stake, and only in the appropriate legal/organizational framework, it is now time for all pLTx and aLTx centers to consider and embrace DCD.

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Improved Waitlist and Transplant Outcomes for Pediatric Lung Transplantation After Implementation of the Lung Allocation Score

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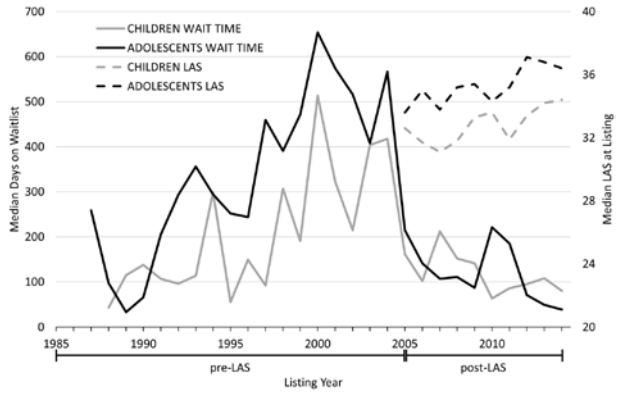
Purpose: Implementation of the lung allocation score (LAS) has reduced waiting time and increased transplant rates in the adolescent and adult lung transplant populations, however it has not been considered valid for lung allocation to children. We examined the indirect impact of the LAS on waitlist and transplant outcomes in children.
Methods: The UNOS database was reviewed for all waitlist entries for pediatric lung transplantation from 1986 to July, 2014 (age at listing <18 yr). Patients receiving heart-lung transplant or living related transplant were excluded. The lung allocation score was implemented in May 2005 for patients ≥12 years of age. Waitlist and transplant outcomes were analyzed based on patient age at listing (child = 0-11 yr, adolescent = 12-17 yr) and date of listing (pre-LAS <5/2005, post-LAS ≥5/2005).
Results: Of 2551 waitlist entries identified, 45% (1136) were for children age 0-11 yr at listing. In patients listed after 5/2005, median LAS at listing was higher in adolescents than children (35.2 vs 32.9 respectively, p<0.001), although LAS was not used for allocation in children. Median waiting time decreased after LAS for both children and adolescents (173 to 109 days, p<0.001, and 377 to 104 days, p<0.001; Figure). Death on the waitlist also decreased after LAS in both groups (31.1 to 21.6% of listings for children, p<0.001, and 31.9 to 15.5% for adolescents, p=<0.001), despite a higher prevalence of ventilator support at listing (19 to 27.4% for children, p=0.002, and 2.9 to 9.2% for adolescents, p<0.001). Recipient survival at 5 years post-transplant increased after LAS in children (53.1 to 61.9%, p=0.0162) but not adolescents (40.8 to 46.4%, p=0.1340).
Conclusion: Indirect improvements in waitlist time, mortality, and post-transplant survival have occurred in children after LAS implementation. The balance of medical necessity and post-transplant survival remains a challenge in lung allocation for all age groups, particularly adolescents.



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Respiratory Viral Infections Are Common in the First Year After Pediatric Lung Transplantation: A Multi-Center Prospective Study

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Purpose: In the NIAID-sponsored Clinical Trials in Organ Transplantation in Children study of pediatric lung transplant recipients (PTLR), we explored the association between respiratory viral infection (RVI) and rejection in the first year following transplant.
Methods: Prospective serial nasopharyngeal (NP) and bronchoalveolar lavage (BAL) specimens from the first year post-transplant were interrogated by multiplex PCR (Luminex xTAG®) that identifies 17 viruses. To differentiate picornaviruses, sequencing of 5' non-translated region was performed. Descriptive statistics include medians/ranges for continuous variables, and percentages for categorical variables. Exact chi-square tests were used to determine association between viral episodes and rejection.
Results: 61 subjects (41% male) a median of 14.2 years (0.7-19.1) had 331 BAL (median 6/pt) and 369 NP specimens (median 7/pt) including 293 paired samples. 94 viral events were detected in 43 PTLRs (70% of subjects, range 1-5 events), of which 69 (73%) were picornaviruses, exclusively rhinovirus by sequencing. Other viruses included: coronaviruses (4); parainfluenza viruses (5); respiratory syncytial virus (4); human metapneumovirus (3); influenza viruses (3); and adenovirus (3). Two patients expired from RVI, both adenovirus. 74 (79%) events were asymptomatic. Of 331 BAL specimens, 31 (9%) were virus-positive compared to 75 of 369 NP specimens (20%). Of 293 paired specimens, concordance for positivity was 27% (k=0.33) (BAL+/NP- 13; BAL-/NP+41). Rhinovirus sequencing results revealed persistent infections with one serotype (9-408 days) and reinfection with different serotypes. There was no association between viral episodes, whether symptomatic or not, and ISHLT A or B grade rejection when concurrent transbronchial biopsies were obtained.
Conclusion: RVI occurred commonly and RVI mortality was rare except with adenovirus. Concordance between NP and BAL was weak. Rhinovirus was recovered most frequently and was persistent for months in a substantial number of patients. No association between RVI and A or B grade rejection was identified. Analysis of the impact of RVI on long term PLTR outcomes (i.e.death, retransplant, BOS and OB), including interrogation of potential humoral and cellular auto and alloimmune mechanisms, is in progress.

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Pediatric Lung Transplantation - 25 Years of Experience

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Purpose: The value of lung transplantation in children and pediatric patients is frequently questioned, due to concerns about long term outcome. We reviewed our 25 years experience in this group of patients and compared it with results obtained in the adult population.
Methods: A retrospective analysis of all patients undergoing LuTX in our department with an age younger then 18 years was performed. All relevant data were retrieved from the institutional database. Patient survival, organ survival and freedom from BOS/CLAD were estimated by Kaplan-Meier curves.
Results: A total of 99 transplantations (82 primary transplants, 14 ReTX, 1 ReReTX and 1 ReReReTX) were performed in 82 patients in the time period 1989-2014. Mean age of the patients was 12.9 ±4.1 years (range 0.6-18). Indication for primary TX was CF (63%), IPH (12 %) and Eisenmenger (6%). Leading indication for retransplantation was CLAD in 80%. Mean time from primary TX to first ReTX was 1135±964 days (range 39–2770).