ISHLT 2023
43rd ANNUAL MEETING & SCIENTIFIC SESSIONS
Wednesday, 19 April – Saturday, 22 April
Colorado Convention Center | Denver, CO USA
#ISHLT2023 | ishlt.org
(https://ishlt.org/ishlt2023/2023-annual-meeting-and-scientific-sessions/scientific-program)

Session POSTER SESSION 3 - Cardiology

FRI-44. 1037. What to Do with a Squeaky Wheel? Ventricular Assist Device Use in Children with Mechanical Valves in the Action Database

April 21, 2023, 5:00 PM - 6:00 PM | Mile High Ballroom

Topic:
MCS-Pediatrics/Congenital Heart Disease

Presenter
S. F. Hussain[1], O. Aljohani[2], S. Auerbach[3], D. Bearl[4], V. Benvenuto[5], E. Bonura[6], L. Crawford[7], J. Dyal[8], C. Hartje-Dunn[9], S. Jana[10], A. Joong[7], S. Kaushal[11], M. Lynn[11], E. Miller[1], L. Radel[12], A. Raskin[13], D. Rivera-Torpoco[14], J. Spinner[11], S. Wilkens[15], C. Villa[1]. *[1]Cincinnati Children's Hospital Medical Center, Cincinnati, OH, [2]Benioff Children's Hospitals, San Francisco, CA, [3]University of Colorado, Denver, [4]Monroe Carell Jr. Children's Hospital at Vanderbilt, Nashville, TN, [5]Boston Children's Hospital, Boston, MA, [6]St. Louis Children's Hospital, Saint Louis, MO, [7]Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, [8]Children's Healthcare of Atlanta, Atlanta, GA, [9]Boston Children's Hospital, Boston, MA, [10]Stollery Children's Hospital, Edmonton, AB, Canada, [11]Texas Children's Hospital, Houston, TX, [12]Children's Medical Center of Dallas, Dallas, TX, [13]Children's Wisconsin, Brookfield, WI, [14]Lucille Packard Children's Hospital, Palo Alto, CA, [15]Norton Children's Hospital, Louisville, KY,*

Disclosures
S.F.Hussain: None. **S.Jana:** n/a. **A.Joong:** None. **S.Kaushal:** n/a. **M.Lynn:** n/a. **E.Miller:** n/a. **L.Radel:** None. **A.Raskin:** n/a. **D.Rivera-torpoco:** None. **J.Spinner:** None. **S.Wilkens:** n/a. **O.Aljohani:** None. **C.Villa:** n/a. **S.Auerbach:** None. **D.Bearl:** None. **V.Benvenuto:** n/a. **E.Bonura:** None. **L.Crawford:** n/a. **J.Dyal:** None. **C.Hartje-dunn:** None.

Abstract or Presentation Description
Purpose The presence of mechanical valves (MechV) introduces additional surgical and post-surgical complexity in patients supported with a ventricular assist device (VAD). There is limited data regarding the outcomes of VAD support in children with MechV. This study sought to assess clinical outcomes of children with MV at the time of VAD implant.
Methods All patients with a MechV at the time of VAD were identified in the ACTION database through 8/1/22. Patient implant characteristics and clinical outcomes were assessed.
Results A total of 47 patients were identified **(Table 1)**. The median age and weight were 5.5 years and 15.4 kg, respectively. The most common diagnosis was congenital heart disease (CHD) (40, 85%), including 18 patients (38%) with univentricular disease. Twenty-one (45%) were INTERMACS profile 2, 14 (30%) profile 1, and 13 (28%) supported on ECMO. A variety of VAD types were employed with the most common devices being paracorporeal continuous flow (21, 38%), paracorporeal pulsatile (17, 30%), and implantable continuous flow (15, 27%). Seventeen patients (36%) experienced major bleeding, 10 patients (21%) stroke, and 18 patients major infection (38%). To date, 27 (45%) patients have been transplanted (21, 35%) or recovered (6, 10%), while 12 died (20%). Seven patients (15%) remain on support and 1 transferred care.
Conclusion Patients with MechV who require VAD support constitute a complex, heterogeneous, and high risk population. Despite these challenges,

successful VAD support is feasible. Balancing the risks of thrombosis and bleeding is a particular challenge and may be a target for anticoagulation harmonization.

(https://files.abstractsonline.com//CTRL/c0/7/694/875/4f9/4db/285/050/d23/0a2/334/0d/g4905_2.png)