Total number of patients	85
Chronic HP	1 (1.2%)
Bronchiectasis	1 (1.2%)
RA ILD	1 (1.2%)
Type of transplant	
Bilateral	78 (92%)
Single	7 (8%)
CMV Status	
D+/R+	40 (47%)
D+/R-	19 (22%)
D-/R+	15 (18%)
D-/R-	11 (13%)
EBV Status	
D+/R+	79 (93%)
D-/R+	6 (7%)
CEP calculated by CKD EPI right before Pelatacent initiation	(2 TOP (26 EO

3 (3.5%)	
6 (7%)	
28 (33%)	
37 (43.5%)	
10 (12%)	
1 (1.17%)	
	3 (3.5%) 6 (7%) 28 (33%) 37 (43.5%) 10 (12%) 1 (1.17%)

	Infections before Belatacept	Infections after Belatacept initiation
Aspergillus	4 (4.7%)	6 (7%)
CMV reactivation	22 (26%)	32 (37.6%)
NTM	7 (8.2%)	3 (3.5%)

	Malignancy before Belatacept	Malignancy after Belatacept initiation
Squamous cell cancer of the skin	6 (7%)	9 (10.5%)
Basal cell cancer of the skin	2 (2.4%)	1 (1.2%)
PTLD	0	1 (1.2%)
MDS	0	1 (1.2%)
Papillary squamous cell cancer of larynx	0	1 (1.2%)
Melanoma in situ	0	1 (1.2%)
Gastric adenocarcinoma	0	1 (1.2%)



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## Neurological Complications in Patients Requiring Durable VAD Systems after ECLS Support. On Behalf of ECLS- Durable MCS Study Group

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Bad Oeynhausen, Germany; <sup>5</sup>Freiburg University, Freiburg, Germany; <sup>6</sup>Medical University Vienna, Vienna, Austria; <sup>7</sup>San Raffaele Hospital, Milan, Italy; <sup>8</sup>University of Turin, Turin, Italy; <sup>9</sup>University Hospital Schleswig Holstein, Kiel, Germany; <sup>10</sup>University Medical Center Utrecht, Utrecht, Netherlands; <sup>11</sup>Montefiore Medical Center, Newyork, NY; <sup>12</sup>Duesseldorf University Hospital, Dusseldorf, Germany; and the <sup>13</sup>Heart and diabetes center NRW, Bad Oeynhausen, Germany.

**Purpose:** Neurological complications are considered as most frequent complications following left ventricular device device (VAD) implantation. The aim of this multicenter study is to investigate neurological complications in patients requiring durable VADs following extra-corporeal life support (ECLS) implantation.

**Methods:** Data of eleven high volume ECLS/VAD centers are collected and evaluated to identify patients who underwent durable mechanical circulatory support system implantation after ECLS systems between January 2010 and July 2018. Preoperative parameters and postoperative outcome are analysed. Data of patients who developed postoperative neurological complication will be analysed and compared.

A total of 531 patients meets the inclusion criteria. Patients who were supported with pulsatile pumps, CardioWest TAH and DeBakey VADs will be excluded. The outcome of the remaining 501 patients (mean age 53  $\pm$ 2 yo, 82% male, average ECLS support duration of 7  $\pm$  7 days and average MELD score of 19  $\pm$  8), who were supported with either HeartWare HVAD, HeartMate II or HeartMate III pumps will be analysed.

**Endpoints:** The primary endpoint will be freedom from stroke at 30, 180, and 360 days post implant. Association of stroke events with operative strategies (using heart lung machine vs. ECLS for VAD implantation) will be evaluated. Further, factors predicting stroke events in this patient population are analyzed. We hypothesize that postoperative (after VAD Implantation) stroke complications may be higher in this sick patient population on ECLS compared to traditional VAD candidates.

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## The ABC's of Stroke Prevention: Reduction in Stroke Frequency Following a Quality Improvement Intervention by the Action Learning Network

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**Purpose:** To assess the frequency of stroke among ventricular assist device patients following a quality improvement bundled intervention (the "ABCs of Stroke Prevention" [ABCs] which focused on Anticoagulation, Blood pressure, and Communication) within the Advanced Cardiac Therapies Improving Outcomes Network (ACTION). The bundle intervention comprised 3 interventions. These were: a document harmonizing how to implement and maintain bivalirudin infusion, a blood pressure management protocol and a daily stroke prevention checklist.

**Methods:** Baseline stroke outcomes prior to the formation of ACTION (Q3 2014 - Q2 2017) were obtained from Pediatric Interagency Registry for Mechanical Circulatory Support (Pedimacs). The CVA adverse event definition was used to assess stroke from Pedimacs. Stroke outcomes following implementation of the ABCs were obtained from the ACTION Outcome Registry Q1 2018-9/18/2020.

**Results:** A total of 693 patients (350 Pedimacs, 343 ACTION) and 887 devices (472 Pedimacs, 415 ACTION) were included. The overall stroke rate decreased following implementation of the ABCs from 14.6% to 10.4% (p=0.03) (Figure 1). The paracorporeal pulsatile pump stroke rate decreased from 30.1% to 8.2% (p<0.001) (Figure 2).