

Evolving Indications for Implantable Loop Recorders in Pediatric Patients



Nathan Miller RN¹, Lisa Roelle PA-C², Aarti S. Dalal, DO², William B. Orr, MD², George Van Hare, MD², Jennifer N. Avari Silva, MD^{2,3}
¹ St Louis Children's Hospital, St Louis, MO; ² Division of Pediatric Cardiology, Washington University SOM, St Louis, MO; ³ Department of Biomedical Engineering, Washington University McKelvey School of Engineering, St Louis, MO.

INTRODUCTION

- Implantable loop recorders (ILRs) have undergone significant advancement in their form factor
- Resulting devices are small, easily inserted and can be used for long term remote monitoring

AIM

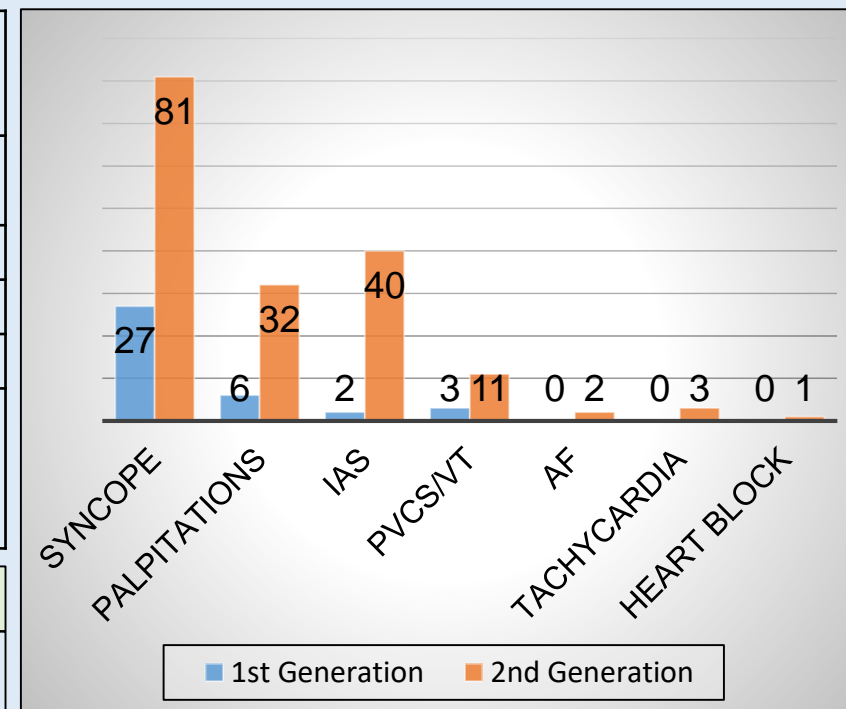
To understand the evolution of implant indication for pediatric patients undergoing ILR implant.

METHODS

- Retrospective chart review, 2009-2019
 - 1st generation ILRs 2009-2014
 - 2nd generation ILRs 2014-2019
- Information collected: patient demographics, PMHx, and indication for implant

RESULTS

Demo-graphics	First Generation Devices (n=38)	Second Generation Devices (n=170)	p value
Sex	17 (45%) female 21 (55%) male	91 (53.5%) female 79 (46.5%) male	
Age (yrs)	13.3 ± 4.7	13.3 ± 4.8	1.0
Weight (kg)	57.7 ± 28.6	53.0 ± 24.8	0.4
Height (cm)	155.3 ± 25	155.3 ± 27	0.5
Device Model	MDT REVEAL Dx 31 (82%) MDT REVEAL XT 7 (18%)	MDT LINQ 151 (89%) SJM CONFIRM 19 (11%)	



CONCLUSIONS

- Expanding indications between 1st and 2nd generation ILR implantation in pediatric patients
- Notable increase in use for the management of patients with IAS

*Key: IAS = Inherited Arrhythmia Syndromes, PVC = Premature Ventricular Contractions, VT = Ventricular Tachycardia, AF = Atrial Fibrillation

Contact Information: nathan.miller@bjc.org
jennifersilva@wustl.edu