

Title: Pediatric Cardiology Telemedicine: The New Age of House Calls

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PROBLEM STATEMENT

- Decrease in the access to care for pediatric patients needing evaluation by cardiology.
- Cardiology offices closest to families have a first appointment wait time of 14 days.
- In addition patient with the symptoms of palpitations/tachycardia require multiple visits for diagnosis of symptoms. This equals a referral to diagnosis of symptoms being 30-60 days. Also requiring multiple trips for families that can be a burden.

PROJECT PURPOSE

- Increase access to pediatric cardiology care utilizing telehealth.
- Decrease referral to first appointment to 48 hours. Decrease referral to diagnosis of symptoms by half.
- In the pediatric population, does an APRN led telemedicine clinic reduce wait time for cardiology referrals compared to the current practice by September 2020?

MODEL/NURSING THEORY

- The project used the model Plan-Do-Study-Act (PDSA) cycle will be implemented to initiate the proposal and test the new processes (Institute for Healthcare Improvement, n.d.).
- Casey's Model of Nursing Theory is the foundation of patient family centered care (Letvak, Ruhm, & Lane, 2011).

METHODS

• Subjects (Participants)

- Participants for this project are pediatric patients receiving care at an urban pediatric cardiology clinic located in central Florida. The pediatric patient is defined as ages newborn to 18 years of age. The patients will be identified as part of the project if they have a referral diagnosis of palpitations or fast heartbeat.

• Setting

- The patient and provider met in the secure electronic clinic identified as Care Connect. The clinic is maintained and facilitated by American Well and the urban pediatric cardiology clinic located in central Florida. The patient along with their guardian, were in a physical location they feel most comfortable at.

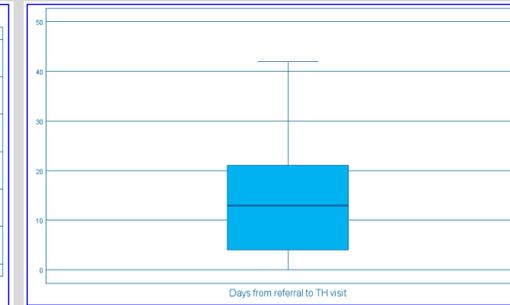
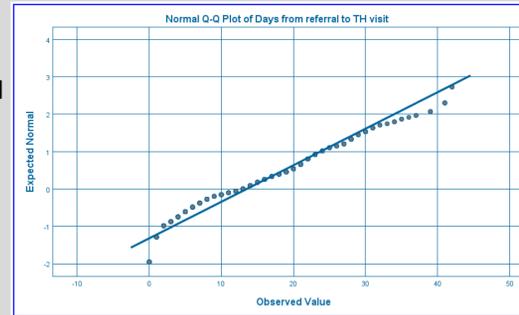
• Instruments/Tools

- First analysis compared of the pre/post implementation number of days from referral to first appointment and will be analyzed using the T-test.
- Second analysis compared the pre/post implementation number of days from referral to diagnosis and analyzed using the T-test

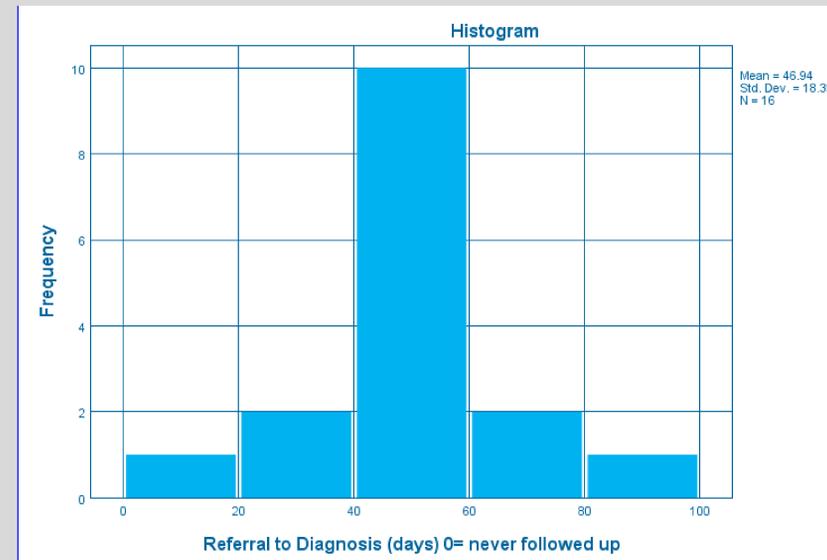
• Intervention and Data Collection

- The scheduler will place the diagnosis/symptoms on the appointment data in the Electronic Medical Record (EMR). If the diagnosis/symptoms are palpitations, fast heartbeat, pacemaker, implanted defibrillator, or monitor results, a decision tree will appear in the scheduling electronic medical record (EMR) and trigger the system to offer a telehealth appointment with the nurse practitioner

RESULTS



Days from referral to TH visit	TH	OV	2019 No TH Available	Total	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
									Lower Bound	Upper Bound		
					16	3.44	7.916	1.979	-7.8	7.66	0	25
					234	13.03	9.515	.622	11.80	14.25	0	42
					218	14.74	10.716	.726	13.31	16.17	0	41
					468	13.50	10.239	.473	12.57	14.43	0	42



DISCUSSION

- The project was able to meet first goal of increasing access to care with the average first telehealth appointment occurring in less than 72 hours.
- The project was able to decrease the time from referral to diagnosis, however not by the goal amount of 50%.
- There was a small sample size of patients choosing telehealth as their first appointment to the clinic.
- The large sample size of patients taking advantage of telehealth for consecutive appointment of test results was a unexpected finding. This will be studied in the future.
- 143 patients used telehealth clinic for follow up.

IMPLICATIONS FOR ADVANCE PRACTICE NURSING

- Telehealth clinics help increase access to care for patients. Nurse Practitioner lead telehealth clinics utilizes information systems/technology and patient care technology for the improvement and transformation of healthcare. These clinics allow for care to occur closer to the patient. Bring the care closer to the patient improves access to care.

SUSTAINABILITY

The telehealth clinic it's self has strong sustainability. The project did show support for increasing access to care..

REFERENCES

The study was clear in showing telehealth increases access to care with decrease in referral to first appointment. The unexpected finding of 145 patients having follow up appointments in telehealth, suggests patients are more likely to take advantage of telehealth clinic as a follow up visit than as an initial visit. This will need further evaluation in future study.