PERT Program Evolution and Outpatient Follow up Utilization

Authors: Kristina Strupp, MSN, RN, APNP, AGCNS-BC, M. Fuad, Jan, MD, FACC, FSCAI, Niloufar Javadi, MD, Louie Kostopoulos, MD, FACC
Author Email: Kristina.Strupp@aah.org
Aurora St. Luke's Medical Center, Milwaukee, WI

Background

- Tracking pulmonary embolism (PE) volume and outcomes at hospital index were initiated at our site in 2017
- Over 8 years, the program and tracking has grown to include 90 data elements, with a recent focus on post hospitalization care
- Program recommendations were updated in 2021 to include cardiology consult consideration for all patients hospitalized with PE and strongly recommended for all intermediate and high-risk PE patients
- The program aims to improve patient outcomes by increasing adherence to standard care guidelines and promote post-discharge follow-up care, including scheduled visits and diagnostic tests

Purpose

- To understand the evolution of a single center Pulmonary Embolism Response Team (PERT) program's guidelines and impact on outpatient follow-up care.

Methods

- A retrospective comparison of pre-PERT program inception (Jan 2015-Dec 2016) to post-PERT program (Jan 2022-Dec 2023) across three care index events

Methods Cont.

- Analysis includes patients hospitalized with an acute primary PE diagnosis
- McNemar test compared these three care index events pre-post for statistical differences

Results

- A comparison of pre-PERT (n=524) to post-PERT (n=433) program cases showed care utilization increased across all three care index events (Figure 1)
- The rate of inpatient cardiology consultation increased from 60% to 87% ($p<0.0001$)
- Follow-up visits with a cardiologist within 3 months of discharge rose from 32% to 48% ($p<0.0001$)
- The rate of echo performed within 6 months of discharge increased from 27% to 42% ($p<0.0001$)

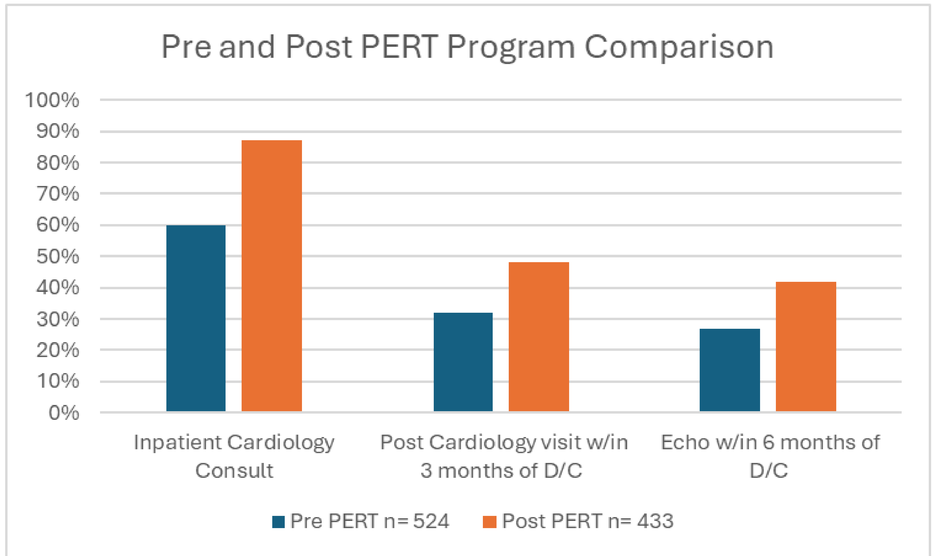

Figure 1. Pre PERT: Jan 2015-Dec 2016 vs Post PERT: Jan 2022- Dec 2023 Follow up Comparison

Conclusions

- Program guidelines demonstrated that increased utilization of cardiology services during index hospitalization can result in higher rates of post-discharge visits, diagnostic testing, and potential for follow up
- The study's single-center design limits generalizability, and further research across diverse healthcare settings is needed to validate these findings and refine best practices

Implications for Practice

- Results highlight the importance of structured care transitions from inpatient to outpatient settings
- Increased service utilization may improve outcomes; but it also raises questions about cost-effectiveness
- Future work to include the development of evidence-based guidelines for post-discharge care, including recommended timelines for follow-up visits, types of diagnostic testing, and criteria for specialist referrals
- To ensure broader applicability, multicenter studies and collaboration across institutions will be essential in developing scalable protocols that can be adapted to various practice environments

Acknowledgements

Aurora St. Luke's Medical Center PERT Program Leadership in addition to authors: Dr. Eric Siegal, Dr. Jason Tomasello, Dr. Afzal Ammar & Dr. Hesham Elghannam

Jeannie Hlebichuk, PhD, Nurse Scientist & Nursing Research Manager

Dr. Tanvir Bajwa, Head of Aurora Cardiovascular Service Line Interventional Program

Dr. Suhail Allaqaband, Senior Medical Director, Aurora Cardiovascular Service line

Aurora Health Care | Now part of ADVOCATEHEALTH

MAGNET RECOGNIZED AMERICAN NURSES CREDENTIALING CENTER

Aurora St. Luke's Medical Center is proud to be Magnet® recognized by the American Nurses Credentialing Center.