



ACC.15

TCT@ACC-12 | innovation in intervention

A484
JACC March 17, 2015
Volume 65, Issue 10S

Congenital Heart Disease

THE FIRST-EVER PEDIATRIC APPROPRIATE USE CRITERIA IMPLEMENTATION PROJECT: A LARGE MULTICENTER QUALITY INITIATIVE

Moderated Poster Contributions

Congenital Heart Disease Moderated Poster Theater, Poster Hall B1

Saturday, March 14, 2015, 10:30 a.m.-10:40 a.m.

Session Title: Congenital Heart Disease: Quality & Outcomes

Abstract Category: 11. Congenital Heart Disease: Pediatric

Presentation Number: 1130M-07

Authors: *Ritu Sachdeva, Wyman Lai, Joseph Allen, Oscar Benavidez, Robert Campbell, Benjamin Eidem, Lara Gold, Michael Kelleman, Leo Lopez, Courtney E. McCracken, Kenan Stern, Rory Weiner, Elizabeth Welch, Pamela Douglas, Emory University School of Medicine, Atlanta, GA, USA*

Background: The first pediatric appropriate use criteria (AUC) were recently published for initial outpatient transthoracic echocardiography (TTE). We sought to determine the appropriateness of TTE performed prior to AUC release, identify any gaps and guide AUC education.

Methods: Data were prospectively collected from patients undergoing initial outpatient TTE in 5 centers. TTE indications [Appropriate (A), May Be Appropriate (M) or Rarely Appropriate (R)] and findings (normal, incidental or abnormal) were recorded.

Results: Of 1,634 studies ordered by 80 physicians, the most common indications were murmur, N = 481 (29%) and chest pain, N = 248 (15%). Seventy orders (4%) had indications not included in the current document. One fourth of the indications were not used. TTE findings and the top 3 indications for each rating are shown (Table). Innocent murmur, syncope and palpitations accounted for 74% of TTEs rated R. The most common abnormal findings were septal defects (n=83) and pulmonary stenosis (n=26). The Odds Ratio for abnormal findings on A or M vs R TTEs was 2.3 [95% CI (1.3-4.2)].

Conclusion: Most TTEs ordered in pediatric cardiology clinics were appropriate. AUC ratings successfully stratified the indications based on the yield of abnormal findings, and identified the most common indications rated R. This study lays the framework for addressing current AUC gaps and designing educational interventions to improve initial pediatric TTE utilization in the outpatient setting.

Rating N (%)	TTE findings N (%)			3 most common indications (N)
	Normal	Incidental	Abnormal	
Appropriate 1139 (70%)	922 (81%)	66 (6%)	151 (13%)	Murmur (358) - With signs, symptoms or findings of CV disease (113) - Pathologic (245) Chest pain (212) Systemic disorders (169)
May Be Appropriate 208 (13%)	194 (93%)	6 (3%)	8 (4%)	Family history (72) Palpitations (23) Chest pain (22)
Rarely Appropriate 217 (13%)	197 (90%)	9(4%)	11 (6%)	Murmur, innocent (111) Syncope (28) Palpitation (21)
Unclassified 70 (4%)	61 (87%)	3 (4%)	6 (9%)	Click (11) Hemangiomas (7) Apnea (3)
Total 1634	1374 (84%)	84 (5%)	176 (11%)	