QI Activity for ABP MOC Part-4

Pediatric Appropriate Use Criteria for Transthoracic Echocardiography: Performance Improvement Module (PIM)

Sponsor: American Society of Echocardiography

Patient type: Patient age ≤ 18 years
Initial outpatient transthoracic echocardiographic evaluation

Minimum patients per cycle: 20

Number of cycles: 3 (Baseline and 2 cycles after implementation of quality improvement process)

MOC Points: 20

Purpose: Improve appropriate utilization of echocardiography in initial evaluation of pediatric patients in outpatient setting.

Specific aim: Reduce the rate of transthoracic echocardiograms ordered for indications rated "Rarely Appropriate" in the AUC document.

Overview:
Allow at least 14 days to complete this PIM. This activity can be performed either through clinics or echocardiographic laboratories.

The data for the baseline cycle will be collected retrospectively on 20 consecutive initial outpatient clinic evaluations by the physician, including those with or without orders for echocardiograms.

During this cycle, the physician will provide the list of patients to an independent reviewer who will review the clinic notes and determine the AUC indication. A cardiologist, sonographer or a cardiology nurse practitioner can serve as the independent reviewer. The cardiologist serving as a reviewer can also claim MOC points for participation in this activity. The reviewer will complete the data collection sheet for the total number of patients reviewed.

After assessing the baseline rate of echocardiograms performed for indications rated "Rarely Appropriate", the physician and the reviewer will implement at least one of the activities for improvement listed below.

Following this, another 20 patients will be evaluated in the improvement cycle. In this cycle, the list of patients will be collected prospectively and the independent reviewer will again assign AUC indications after reviewing the clinic notes. Any change in the rate of echocardiograms ordered for indications rated "Rarely Appropriate" will be recorded. This cycle will be repeated once more after continuing the same intervention or adding another one if no improvement is seen in the previous cycle.

Data collection:
The clinic physician will provide the list of patients to the reviewer for baseline cycle and cycle 1 and 2. The reviewer will use the data collection sheet (downloaded from the website) to enter the appropriateness ratings and share with the clinician. The data collection spreadsheet consists of 4 tabs, one tab for each cycle (baseline, cycle 1 and cycle 2) and a summary tab that auto-populates based on the other 3 tabs and

generates a graph. Each of the cycle tabs has a dropdown list for the TTE Ordered (Yes/No) and Appropriateness rating-A, M, R and U.

Bar graphs will be used to display performance data for the PIM. The clinician will then complete the survey on the web-site.

List of activities for improvement:

- Read the AUC document completely
- Listen to the IAC webinar http://www.intersocietal.org/iac/helpfulresources/ondemand.htm)
- Make pocket card for common AUC indications and their ratings
- Place AUC Tables in a visible place in your clinic
- Attended or deliver a lecture on use of pediatric AUC
- Other (describe)

List of activities for improvement initiated through the echocardiographic lab personnel:

- Lecture to referring physicians on how to use the AUC document and the role of AUC in clinical practice and quality improvement.
- Providing feedback on appropriateness ratings of studies to individual providers ordering echocardiogram. This can be in the form of a letter along with the AUC document as a reference.
- Development of point-of-care self-directed tools including integration of AUC indications with electronic order system.
- Posting AUC Tables in physician work area in clinics.
- Distributing laminated pocket cards with commonly used AUC indications and their ratings.

Data collection for each cycle:
Clinic-based activity: Total no. of patients: (20 for each cycle)
Echo: Yes N =x (Appropriate N= x, May Be Appropriate N= x, Rarely Appropriate N= x, Unclassifiable N= x)
Echo: No N =x (Appropriate N= x, May Be Appropriate N= x, Rarely Appropriate N= x, Unclassifiable N= x)

Activity Contact:
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CME Available: No **Simulated Data Available:** No

Cost: Free with MOC Enrollment **Min. Days to Complete:** 14 days

Expires: April 30, 2020

References

1. Campbell RM, Douglas PS, Eidem BW, Lai WW, Lopez L, Sachdeva R. ACC/AAP/AHA/ASE/HRS/SCAI/SCCT/SCMR/SOPE 2014 appropriate use criteria for initial transthoracic echocardiography in outpatient pediatric cardiology: a report of the American College of Cardiology Appropriate Use Criteria Task Force, American Academy of Pediatrics, American Heart Association, American Society of Echocardiography, Heart Rhythm Society, Society for Cardiovascular Angiography and Interventions, Society of Cardiovascular Computed Tomography, Society for Cardiovascular Magnetic Resonance, and Society of Pediatric Echocardiography. Journal of the American College of Cardiology 2014;64:2039-60.

2. Bhatia RS, Milford CE, Picard MH, Weiner RB. An educational intervention reduces the rate of inappropriate echocardiograms on an inpatient medical service. JACC Cardiovascular imaging 2013;6:545-55.
3. Lin FY, Dunning AM, Narula J et al. Impact of an automated multimodality point-of-order decision support tool on rates of appropriate testing and clinical decision making for individuals with suspected coronary artery disease: a prospective multicenter study. Journal of the American College of Cardiology 2013;62:308-16.
4. Ward RP, Mansour IN, Lemieux N, Gera N, Mehta R, Lang RM. Prospective evaluation of the clinical application of the American College of Cardiology Foundation/American Society of Echocardiography Appropriateness Criteria for transthoracic echocardiography. JACC Cardiovascular imaging 2008;1:663-71.
5. Sachdeva R, Allen J, Benavidez OJ et al. Pediatric Appropriate Use Criteria Implementation Project: A Multicenter Outpatient Echocardiography Quality Initiative. Journal of the American College of Cardiology 2015;66:1132-40.