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# Appropriate Use Criteria for Echocardiography

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# APPROPRIATE USE CRITERIA OF ECOCARDIOGRAPHY

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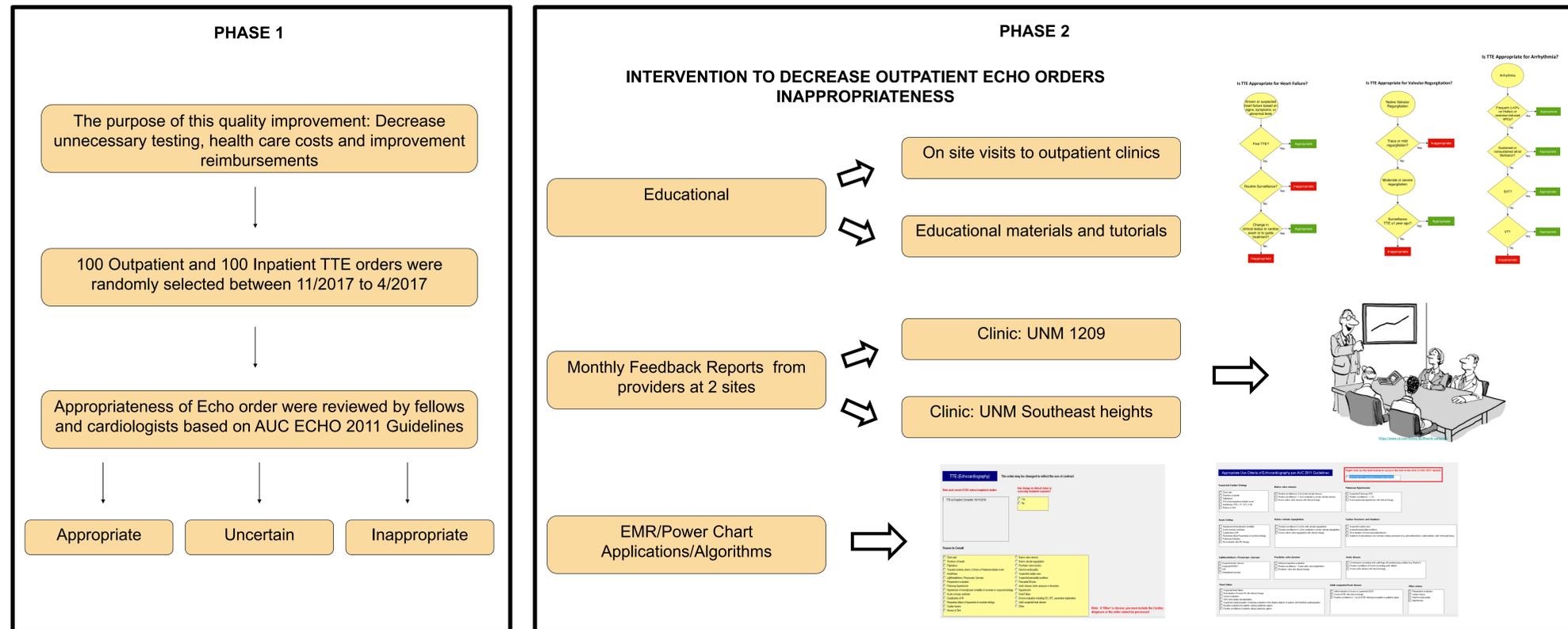
## ABSTRACT

Transthoracic Echocardiography (TTE) is one of the most common diagnostic imaging tests used in Cardiology. It is portable, noninvasive and provides important data regarding diagnosis and management of many cardiac conditions. In recent years TTE has had an increased in popularity for its use in both inpatient and outpatient settings. This has resulted in an increase of inappropriate use leading to overutilization of resources.

At our institution, University of New Mexico Hospitals we evaluated the prevalence rate of appropriateness of TTE with our quality improvement project. During the first phase of the project 100 TTEs each were randomly selected in both the outpatient and inpatient settings. We evaluated appropriateness based on the AUC of TTE published in 2011 by the American College of Cardiology. Results demonstrated inpatient TTE orders had reduced number of inappropriate echo orders compared to outpatient echo orders. The percentage of inappropriate TTE orders in the outpatient setting was unacceptably high approaching 30% of all outpatient TTE requests.

Recent studies have shown that education of physicians concerning the appropriate use of echocardiography can improve resource utilization in clinical practice. The purpose of the second phase of this quality improvement project is to reduce the number of inappropriate TTE orders in the outpatient settings at our UNM clinics through multiple and continued mechanisms. This will be achieved through educational material, EMR modifications, follow up audit reports and feedback sessions.

## METHODS



## BACKGROUND

### Echocardiography

- Noninvasive
- No procedural risk to patient
- Widely available
- Mobile
- Immediate information on cardiac structure and function

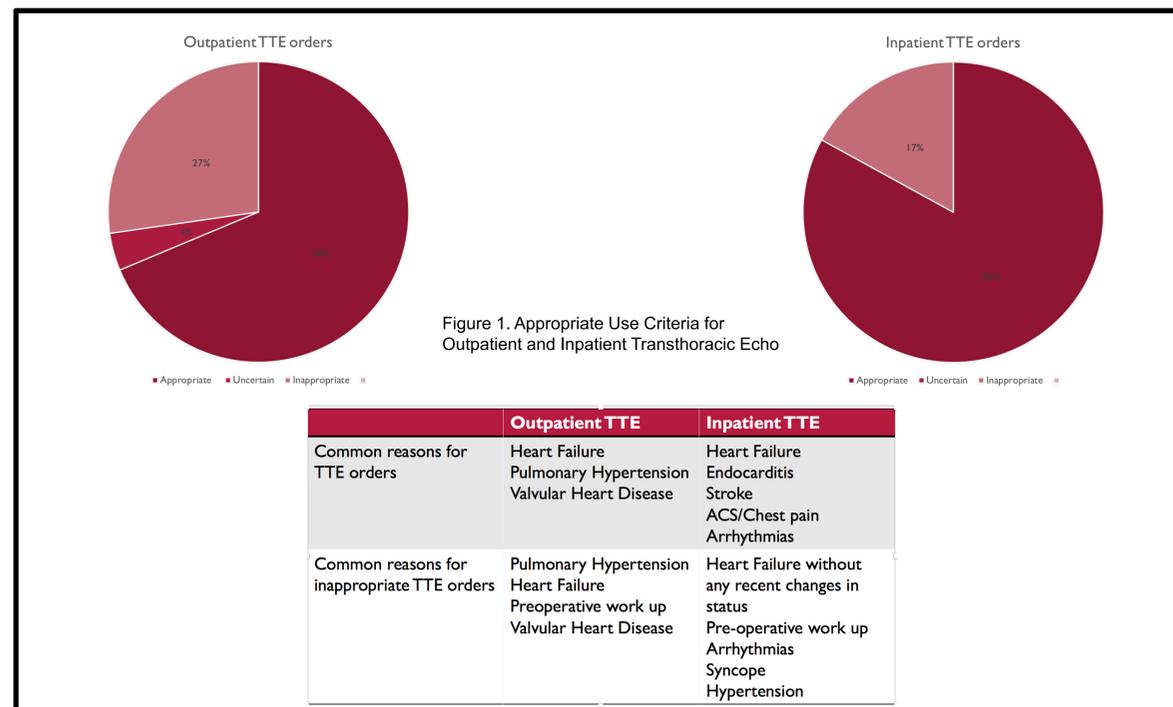
- 30% Health Care Dollars are spent on services with no improvement in patient care
- Approximately 1/2 of all Medicare spending 1999-2004 was on cardiac imaging services.
- Imaging expenditures continue to grow



### Why do we care?

- American College of Cardiology (ACC) & American Society of Echocardiography (ASE) jointly developed the Appropriate Use Criteria for Echo
- Intersocietal Commission for the Accreditation of Echocardiography Laboratories (ICAEL) will require that AUC tracking and reporting of echocardiograms be required as part of echocardiography laboratory accreditation.
- Future Billing and Reimbursement Procedures

## RESULTS



## DISCUSSION

- Outpatient Echo orders have 27% more inappropriateness compared to inpatient orders 17%; this can be attributed to the acute condition in which patients present to the hospital and orders are screen by fellows in training and Cardiologists.
- Recent studies have shown that education of physicians about the appropriate use of echocardiography can improve resource utilization in clinical practice and reduce the number of inappropriateness.
- Education intervention: educational material with algorithms, monthly meeting with providers to get feedback. IT change; order set indicating last TTE date and questions regarding reason for order.
- Analysis of the new changes will be done by the end of November.

## REFERENCES

- ACCF/ASE/AHA/ASNC/HFSA/HRS/SCAI/SCCM/ SCCT/SCMR 2011 Appropriate Use Criteria for Echocardiography