

# Improving consistency ordering 2D-STE & cardiology referral to detect subclinical cardiotoxicity (CT) in the setting of chemotherapy

Amanda Rohde, MS, BSN, RN, DNPc, CNE, Susan Renda, DNP, CRNP & Brenda Shelton, DNP, CNS



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## Introduction

### Problem/Significance

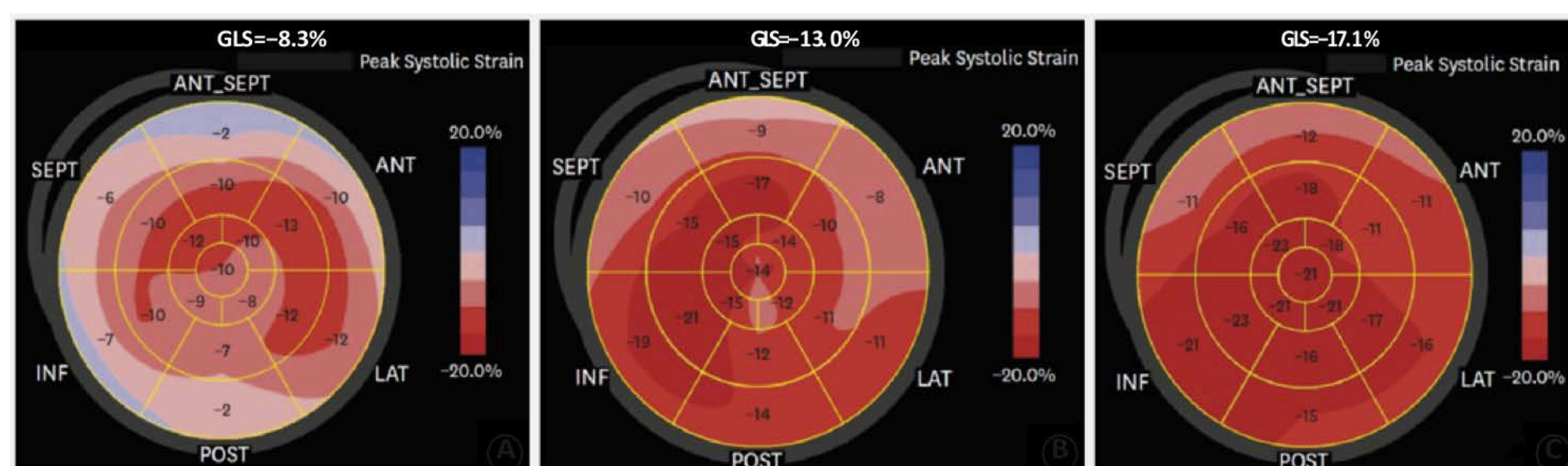
- CT chemotherapies can cause HF, even in remission (as late as 25 yrs post-cure)
- Continued use of agents r/t efficacy of therapy

### Background/Scope of Problem

- AHA & EACVH (2013)
- Recommend monitoring for CT/HF using echocardiogram before & during all CT chemo

### Literature Review & Best Practice Recs

- Subclinical changes undetected → HF, affect tx
- GLS is better early predictor → as early as 3 months, before pt has signs & symptoms of HF
- May be reversible w/ early detection



### Gaps in Practice

- EF still used as standard practice
- No protocols for ordering 2D-STE, GLS interpretation and/or cardiology referral
- Inconsistent plans for monitor/manage of CT

### Theory: Rosswurm & Larrabee Model for Translational Framework



## Purpose & Aims

**Purpose:** Educate providers on recommendations for monitoring CT in the setting of chemotherapy & increase consistent use of best practice with ordering 2D-STE echo, interpreting GLS results, and placing cardiology referrals

**AIM 1:** Improve knowledge of 2D-STE/GLS in monitoring for CT

**AIM 2:** Improve use of best practice for echo order, results interpretation, cards referral

**AIM 3:** Increase provider use of recommended orders & referral

## Methods

**Design:** Pre/post-intervention QI project

- 5-item Likert scale post-education evaluation
- Mixed modality, pre/post-intervention self-assessment survey
- Site & Sample:** Major mid-Atlantic Cancer Center
- 123 providers were contacted
- 4 participated in the confidential post-education evaluation
- 9 participated in the confidential pre/post self-assessment

### Analysis

- Data de-identified & stored on secure server
- Descriptive statistics analysis; qualitative analysis for narratives

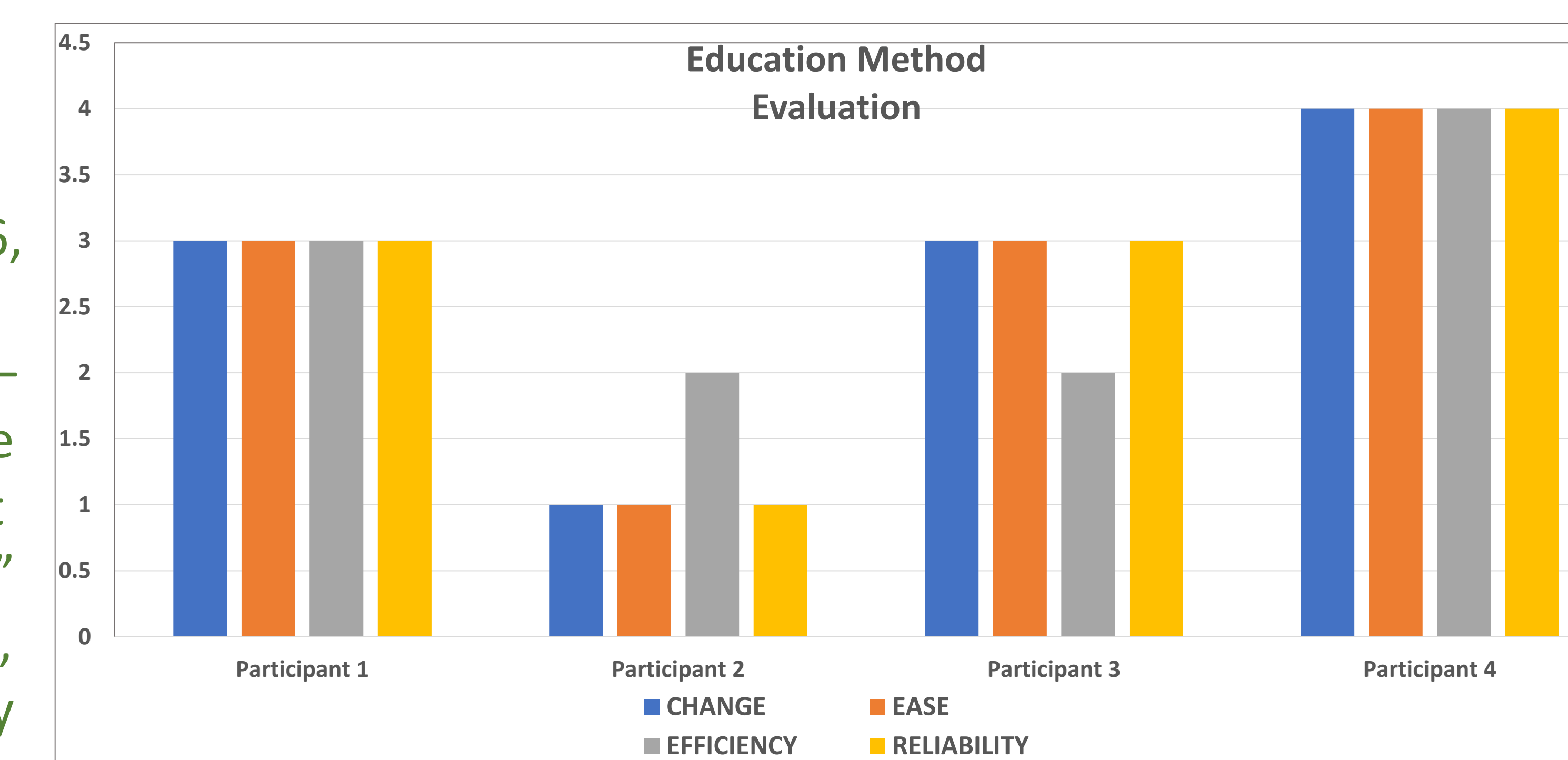
## Sample Demographics

Baseline characteristics of participants	(n=9)
<b>Provider Role, n (%)</b>	
MD	7 (77.8)
APNP	0
Research RN	1 (11.1)
BMT Coordinator	1 (11.1)
<b>Responsible for monitoring/assessing CT</b>	
Yes	8 (88.9)
No	1 (11.1)
<b>Responsible for placing cardiology referrals</b>	
Yes	7 (77.8)
No	2 (22.2)
<b>Responsible for postponing/discontinuing treatment</b>	
Yes	7 (77.8)
No	2 (22.2)

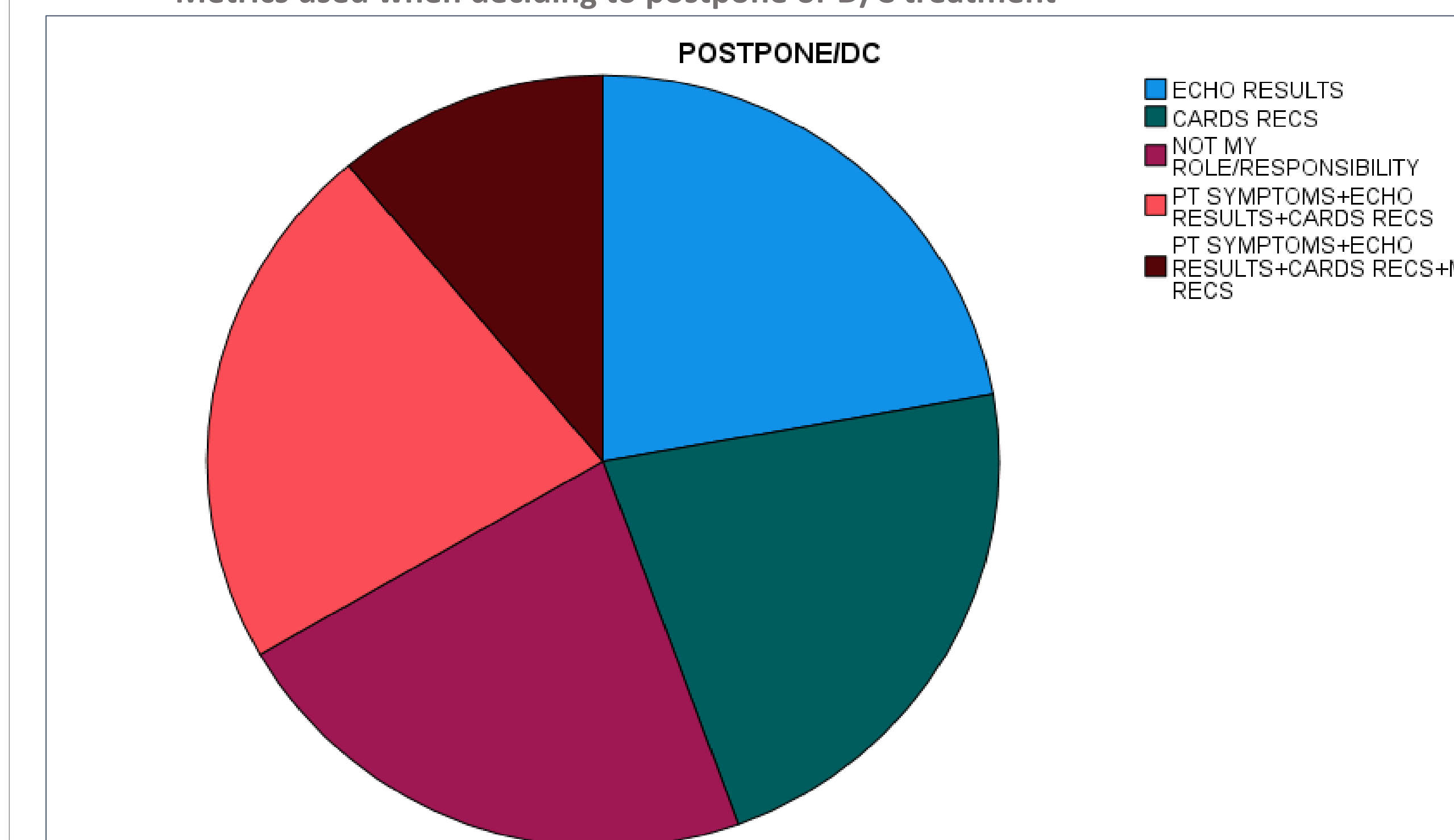
## Results

### AIM 1: (n=4)

- Mean for all questions was 2.75 w/ SD=1.26, responses between agree – somewhat agree
- One respondent chose "disagree" for all questions, except efficiency



Metrics used when deciding to postpone or D/C treatment



### AIM 2: (n=9)

- NO participants knew how echo's are performed
- 67% did not feel confident placing the orders
- Only 1 participant used GLS consistently
- 56% did NOT know GLS is the best predictor of CT

**AIM 3:** could not be completed d/t project limitations

## Conclusion & Future Implications

- Discussion:** providers are not familiar with GLS, EF standard practice, do not feel confident ordering echo or making cardiology ref
- Limitations:** all virtual, sample size too small, educ module too long
- Strengths:** highlight gaps in practice, increased awareness

### Future Plans

**Dissemination:** Oncology grand rounds, developed new tool

**Research:** Submit for publishing to Onc & CV focused pubs

**Practice:** Standard orderset for monitoring echo/CT for chemo