

Shifting 2nd Trimester Anatomic Surveys to Accommodate 1st Trimester Screening (EP05.37)

Bailey Kelson¹, Michelle Debbink², April Nelson³, April Griffith³, Anne Kennedy³, Paula Woodward³, Susan Dalton²

Introduction

Adopting universal 1st trimester anatomic screening is challenging for most ultrasound centers due to the increased volume of studies. Our center made specific alterations to the 2nd trimester (2T) survey timing in an attempt to decrease follow-up studies.

Objectives

To assess whether a 1st trimester anatomic screening (1TAS) protocol would:

- 1) Shift 2T anatomic surveys from 18-20 weeks to 20-22 weeks GA as recommended
- 2) Alter the rate of follow-up studies for incomplete 2T surveys
- 3) Decrease costs associated with follow-up

Methods

Retrospective cohort study of 2T surveys performed 2023 – 2025 at a single institution. Multifetal gestation, EFW <10%, and missing data (BMI or GA) were excluded. Predicted probabilities of follow-up by GA were estimated with logistic regression, adjusted for BMI.

Methods cont.

The frequency of 2T surveys at 20-22 week GA and yearly follow-up rates after implementation of 1TAS protocol were estimated with Cochran-Armitage test for trend.

Results

We included 9,854 studies with mean BMI 29.7 and average follow-up rate of 15.2%. Figure 1 demonstrates significant change in yearly follow-up rate and frequency of 2T surveys at 20-22 week GA following implementation of 1TAS protocol. We found an inverse relationship between follow-up rate and GA, with the lowest rate occurring at 21 weeks (Table 1). Follow-up cost savings are estimated at \$18,607/year.

Conclusion

Shifting 2T surveys to 20-22 weeks GA is associated with lower rates of follow-up for incomplete anatomy while preserving early detection of major anomalies with 1st trimester screening.

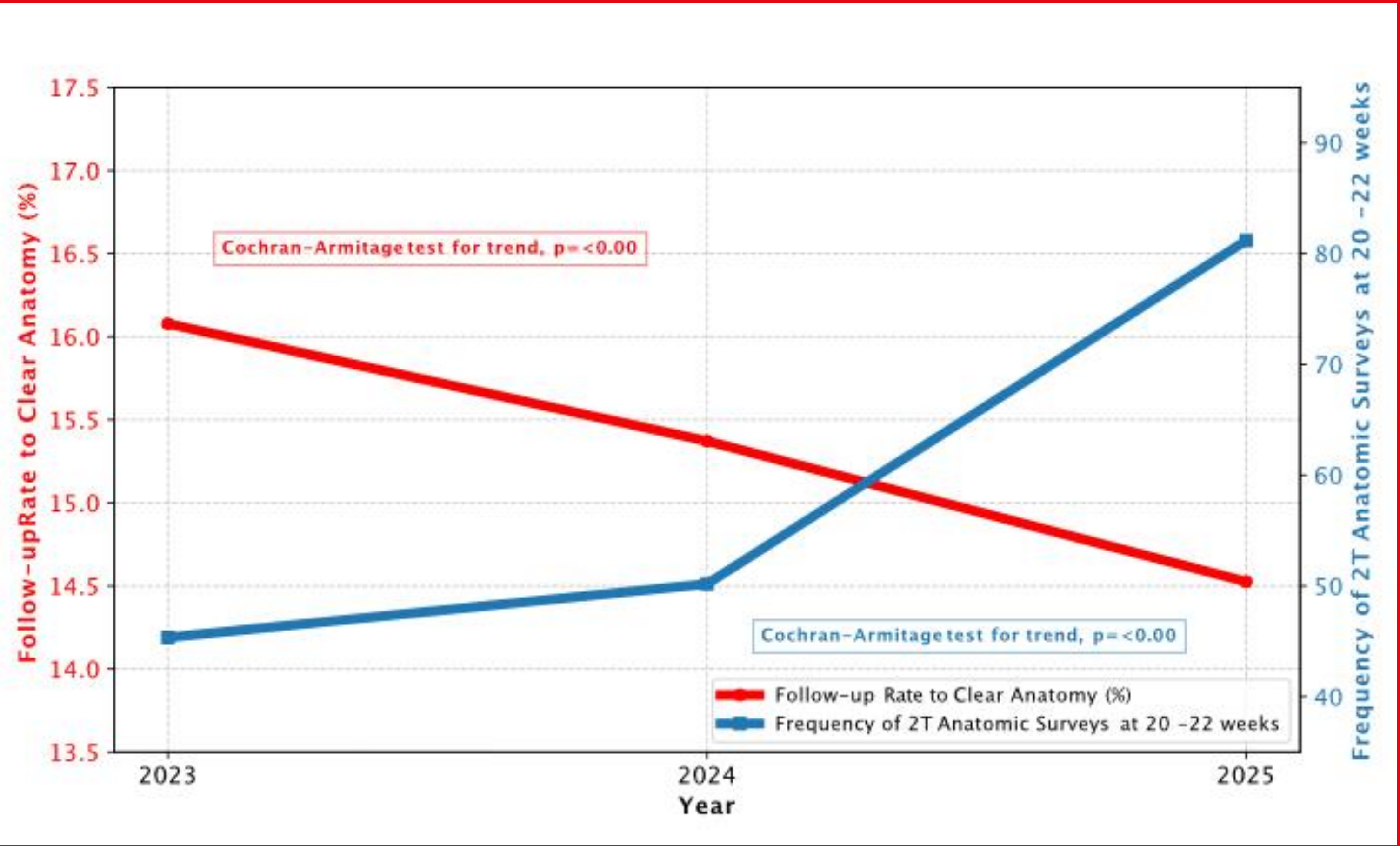


Figure 1. Yearly follow-up rate to for incomplete anatomic surveys vs. timing of second trimester anatomic surveys after implementation of 1st trimester anatomic screening protocol

GA at 2 nd Trimester Survey (n)	Unadjusted Follow-up Rate n (%) [*]	Adjusted [*] Odds Ratio of Follow-up	95% CI	Adjusted [*] Marginal Probability of Follow-up
18 weeks (1178)	256 (21.7%)	Referent	---	---
19 weeks (2713)	441 (16.3%)	0.69	0.58 – 0.82	16.0%
20 weeks (3756)	533 (14.2%)	0.54	0.45 – 0.64	13.0%
21 weeks (1508)	182 (12.1%)	0.44	0.36 – 0.54	10.8%
22 weeks (699)	90 (12.9%)	0.45	0.35 – 0.59	11.1%

^{*}Adjusted for BMI

Table 1. Rate of follow-up studies needed to clear anatomy

¹Spencer Fox Eccles School of Medicine at the University of Utah

²University of Utah Department of OB/GYN – Maternal Fetal Medicine

³University of Utah Department of Radiology and Imaging Sciences

