Patient body composition is largely ignored in evidence informing hypertension guidelines in pregnancy

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Introduction

- Over 40% of the United States (US) population is now considered obese.
- Pre-pregnancy BMI > 30 is a risk factor for developing preeclampsia.
- It is **important that obstetric guidelines** are based on research including patients who **represent the current demographics.**

Our objective was to determine how often body composition was identified in research cited by modern clinical guidelines related to pre-gestational and gestational hypertension.

Methods

- Descriptive study of active ACOG, SMFM, AAFP, and USPSTF guidelines related to hypertensive disorders of pregnancy and pre-pregnancy counseling.
  - **Guidelines** and **cited works** were analyzed for identification of body composition of their study population.
  - **Original research investigations** underwent further statistical analysis with chi squared test for categorical variables.

Results

- 12 guidelines met inclusion criteria with 610 cited works
  - 244 (40%)were original research.
- Body composition was identified in 33.6% (Fig. 1) and was included in the discussion of 10.2% of the citations (Fig. 2).
- Subjects with obesity represented only 5.1% of research participants. (Fig. 3)
- International works were significantly more likely to report body composition than US works
  - 40.7% vs 26.4%; OR 1.9, 95% CI 1.1, 3.3
- No significant different in body composition identification in studies cited by obstetric guidelines compared to general practice guidelines
  - 34.6% (ACOG, SMFM) vs 27.3% (AAFP, USPSTF), p=0.4

Despite rising obesity rates in the US, subjects with obesity are strikingly underrepresented in hypertension guidelines in pregnancy.

Research subjects that better represent our evolving population demographics must be included in research to inform guidelines for diseases heavily impacted by coexisting obesity.
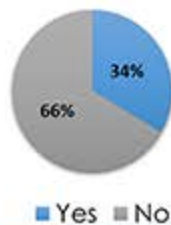
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Fig 1

BMI Identified

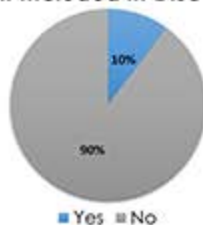
- 34% Yes
- 66% No

Fig 2

BMI Included in Discussion

- 10% Yes
- 90% No

Fig 3

Subjects with Obesity

- 5% Yes
- 95% No