

Guidelines for gestational carriers: a population-based assessment of adherence and outcomes

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Objective

- To evaluate whether non-adherence to American Society for Reproductive Medicine (ASRM) safety guidelines for gestational carriers (GCs) is associated with increased obstetric and perinatal morbidity and mortality

Study design

- Cross-sectional study of birth certificate data from GC pregnancies in Utah from 2009 to 2018
- ASRM guideline violations: major comorbidities, mental health conditions, tobacco/drug use, age < 21 or > 45, nulliparity, > 5 prior deliveries, > 3 prior cesarean delivery (CD), prior stillbirth
- Primary outcome:** composite of severe obstetric morbidity/mortality (death within one year of delivery, ICU admission, eclampsia, HELLP, blood transfusion, hysterectomy)
- Secondary outcomes:** composite neonatal morbidity, preterm birth (PTB), CD, gestational diabetes mellitus (GDM), pregnancy-related hypertension

Results

- Included 361 GC deliveries of 435 neonates
- 16% (58) did not meet ASRM guidelines
- Rates of severe obstetric morbidity/mortality, GDM, and pregnancy-related hypertension did not differ among GCs that did and did not meet guidelines
- Neonatal morbidity, CD, and PTB were more common in GCs that did not meet guidelines, even after adjusting for gestational age and multifetal gestation (aOR 2.89, 1.94, and 2.24)

Conclusion

- Nearly one in five GC pregnancies are non-adherent to ASRM guidelines
- Non-adherence is associated with increased complications
- With GC pregnancies rapidly increasing, future research should focus on the safety of GCs and on why non-adherence occurs

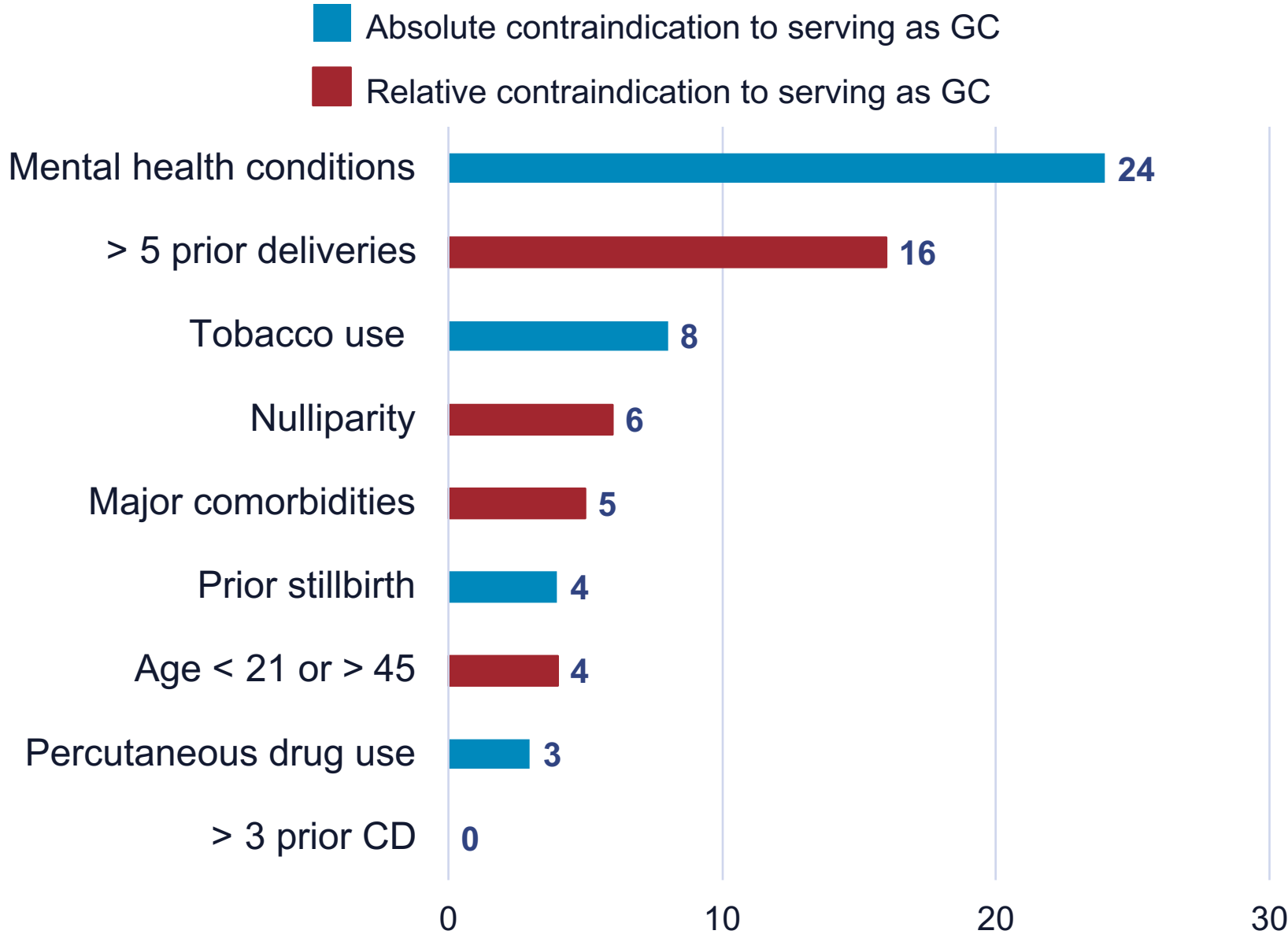
Among gestational carrier pregnancies, non-adherence with ASRM guidelines is common and associated with increased neonatal morbidity, premature birth, and cesarean delivery.



Questions?

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Number of pregnancies violating ASRM guidelines



	Meets ASRM guidelines n=303	Violates ASRM guidelines n=58	aOR (95% CI) ¹
Severe obstetric morbidity & mortality	5 (2%)	1 (2%)	1.04 (0.12-9.05)
Mortality	0 (0%)	0 (0%)	
ICU admission	2 (1%)	0 (0%)	
Eclampsia	0 (0%)	0 (0%)	
HELLP syndrome	1 (0.3%)	0 (0%)	
Transfusion	3 (1%)	1 (2%)	
Unplanned hysterectomy	0 (0%)	0 (0%)	
Cesarean delivery	71 (23%)	21 (36%)	1.94 (1.03-3.66)
Gestational diabetes mellitus	15 (5%)	2 (3%)	0.69 (0.15-3.18)
Pregnancy-related hypertension	30 (10%)	7 (12%)	1.25 (0.52-2.99)

	Meets ASRM guidelines n=361	Violates ASRM guidelines n=74	aOR (95% CI) ¹
Neonatal morbidity & mortality	82 (23%)	31 (42%)	2.89 (1.22-6.89)
Neonatal death	4 (1%)	2 (3%)	
5-minute Apgar < 7	5 (1%)	4 (5%)	
NICU admission > 24 hours	47 (13%)	27 (37%)	
Respiratory distress syndrome ²	28 (17%)	5 (25%)	
Assisted ventilation > 6 hours	24 (7%)	13 (18%)	
Seizure	0 (0%)	0 (0%)	
Preterm birth	117 (32%)	35 (47%)	2.24 (1.16-4.32)
Preterm birth < 34 weeks	39 (11%)	16 (22%)	2.31 (1.13-4.73)
Preterm birth < 32 weeks	22 (6%)	11 (15%)	2.62 (1.16-5.91)

¹Adjusted for multifetal gestation for obstetric outcomes and PTB; adjusted for multifetal gestation and gestational age at delivery for neonatal outcomes.

²RDS outcomes not reported for 252 neonates.