Evaluating Standard of Care in a Reduced Prenatal Care Model in the COVID-19 Pandemic

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OBJECTIVE:
- To investigate the impact of a **reduced contact prenatal care model** necessitated by the COVID-19 pandemic on meeting **standards of care**.

STUDY DESIGN:
- **Retrospective case-control study** of patients in low-risk obstetrics clinic at a tertiary care county facility.
- Compared a reduced in-person prenatal care cohort (R) over 12 weeks from 3/16/20 – 5/14/20 with a control group (C) receiving traditional prenatal care who delivered before 3/16/20.
- The R cohort was subdivided into those that entered reduced prenatal care in early gestation (1st or 2nd trimester) or late (3rd trimester).
- Excluded multiple gestations, lethal fetal anomalies, presentation to care > 28 weeks, major preexisting medical conditions.
- Independent sample t-test, ANOVA, and Chi-square were used for analysis.

RESULTS:
- Total 90 patients in the R cohort were matched with controls.
- Standards of care metrics between the two cohorts is listed in Table 1.
- **Gestational age of anatomy ultrasound** was later in R cohort (22 vs 20.8 weeks, p=0.017).
- Number of triage visits and no-shows were similar, though **total number of visits** (in-person and telehealth) was higher in R (9.2 vs 8.3, p=0.043).
- Standards of care metrics between entry into R in early gestation (E) versus late (L) versus controls (C) is listed in Table 2.
- Compared to (C) and (E), (L) had later GA at first prenatal visit (13.7 (E) vs 17.9 (L) vs 15 weeks (C), p=0.012) and anatomy US (20.8 (E) vs 22.9 (L) vs 20.8 weeks (C), p=0.001), as well as higher number of no-shows (1.0 (E) vs 1.7 (L) vs 1.0 (C), p=0.015). Other metrics were similar across groups.

CONCLUSION:
- **In a reduced contact prenatal care model, standards of care are met.**
- These findings raise the question of pursuing a reduced prenatal care model outside of COVID-19 pandemic in the future.

Despite reduced in-person visits due to the COVID-19 pandemic, **standards of care are still met with a modified prenatal care model.**

Questions?
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Table 1: Standard of Care Criteria Between Reduced Prenatal Care Cohort and Controls

	Reduced prenatal care (n=90)	Control (n=90)	p-value[a]
Maternal age (years)	29.6 ± 6.3	30.7±6.2	0.26
Gestational age of first prenatal visit (weeks)	16.1±7.7 weeks	15.0±6.6 weeks	0.31
Gestational age of dating ultrasound	12.1±6.5 weeks	11.0±6.1 weeks	0.28
Gestational age of anatomy ultrasound	**22.0±4.0 weeks**	**20.8±2.8 weeks**	**0.017**
Number of triage visits	1.3±1.4	1.7±2.1	0.19
Total number of ultrasounds	3.5±1.7	3.6±1.2	0.62
Total number of visits	**9.2±2.8**	**8.3±2.6**	**0.043**
Total number of no-shows	1.4±1.8	1.0±1.3	0.072
Pap smear screening	85 (94.4%)	87 (96.7%)	0.74
Genetic screening	73 (81.1%)	78 (86.7%)	0.42
Gestational diabetes screening	87 (96.7%)	88 (97.8%)	0.65
Tdap administration	88 (97.8%)	83 (92.2%)	0.09
Group B strep screening	88 (97.8%)	89 (98.9%)	0.56
Postpartum readmission	6 (6.7%)	8 (8.9%)	0.58

Note: Data are represented as n (%) or mean ± standard deviation.
[a]P-values were calculated by t-test or Chi-square as appropriate.

Table 2: Standard of Care Criteria Between Reduced Prenatal Care Cohort Subdivided by Time of Entry and Controls

Standard of Care	Early entry (n=39)	Late entry (n=51)	Control (n=90)	p-value[a]
Maternal age (years)	30.7 ±5.9	28.8 ± 6.5	30.7 ±6.2	0.18
Gestational age of first prenatal visit (weeks)	**13.7±5.3**	**17.9±8.8**	**15.0±6.6**	**0.012**
Gestational age of dating ultrasound	10.8±4.3	13.0±7.7	11.0±6.1	0.15
Gestational age of anatomy ultrasound	**20.8±3.1**	**22.9±4.4**	**20.8±2.8**	**0.001**
Number of triage visits	1.3±1.3	1.4±1.5	1.7±2.1	0.40
Total number of ultrasounds	3.3±1.4	3.7±1.9	3.6±1.2	0.40
Total number of visits	9.5±2.3	8.9±3.2	8.3±2.6	0.08
Total number of no-shows	**1.0±1.4**	**1.7±2.0**	**1.0±1.3**	**0.015**
Pap smear screening	39 (100%)	46 (90.2%)	87 (96.7%)	0.14
Genetic screening	35 (89.7%)	38 (74.5%)	78 (86.7%)	0.17
Gestational diabetes screening	39 (100%)	48 (94.1%)	88 (97.8%)	0.22
Tdap administration	38 (97.4%)	50 (98.0%)	83 (92.2%)	0.23
Group B strep screening	38 (97.4%)	50 (98.0%)	89 (98.9%)	0.82
Postpartum readmission	2 (5.1%)	4 (7.8%)	8 (8.9%)	0.77

Note: Data are represented as n (%) or mean ± standard deviation.
[a]P-values were calculated by t-test or Chi-square as appropriate.