

Differences in provider practices in recommending low dose aspirin for preeclampsia prophylaxis

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Introduction

- Several studies report inadequate low dose aspirin (LDA) use for patients with risk factors for preeclampsia.
- Overall, rates of preeclampsia screening and LDA recommendation by obstetrics provider background is limited.
- A prior study surveyed providers (OB/GYN generalists, MFM, and family medicine) on LDA practices and different clinical scenarios – surveyed providers were more likely to miss the opportunity to recommend LDA for multiple moderate risk factors vs. high risk factors. (Martinez-King et al., 2023)

Objective

- To evaluate rates of low dose aspirin recommendation for preeclampsia prophylaxis among different provider types

Methods

- This **retrospective, single center, cohort study** identified patients who met ACOG and SMFM criteria to low dose aspirin prophylaxis that had live births at a single academic center between January 2021 – May 2021.
- **Exclusion criteria:** Maternal age <18 years old, delivery <20 weeks, transfer of care or initiation of prenatal care >28 weeks
- The cohort was divided based on provider type (Resident clinic, high risk obstetrics resident clinic (HROB), general OB/GYN, MFM, and midwife (CNM)).
- Preeclampsia risk factors and pregnancy characteristics were obtained.
- **Variables** included preeclampsia risk factor criteria, OB provider type, and aspirin prescribing practices, timing of initial prenatal visit, and timing of low dose aspirin initiation were collected.
- **Statistical analysis** included: Chi square, Fischer's exact, and multivariate logistic regression with significance levels of $p < 0.05$.

Results

- Of the 622 patients in the study period, 375 patients met criteria to initiate low dose aspirin prophylaxis (i.e., ≥ 1 high risk factor or ≥ 2 moderate risk factors)
- All providers were more likely to prescribe low dose aspirin in patients with ≥ 1 high risk factor compared to ≥ 2 moderate risk factors ($p < 0.01$).
- Providers who were more likely to recommend low dose aspirin were MFM (58.4%), any high-risk practice (MFM or high-risk resident clinic) (58.6%), and all resident clinics (44.7%). OB/GYN generalists (12.0%), any general obstetric practice (19.7%) and midwives (6.8%) recommended low dose aspirin at lower rates ($p < 0.01$).
- The difference in provider type recommendation for those with ≥ 1 high risk factor ($p < 0.01$) and with ≥ 2 moderate risk factors ($p < 0.01$) remained significant across provider type. (Table 1)
- In multivariate regression analysis ($p < 0.01$), the predictors of low dose aspirin recommendation were general OB/GYN provider (OR 0.16 (95%CI 0.06-0.46), $p < 0.01$), midwife provider (OR 0.11 (95%CI 0.04-0.32), $p < 0.01$), gravidity (OR 0.85 (95%CI 0.73-0.98) $p=0.04$), and moderate risk factors only (OR 0.10 (95%CI 0.05-0.18) $p < 0.01$).

MFM specialists and resident clinics had **higher rates** of low dose aspirin recommendation than OB/GYN generalists and midwife practitioners, **regardless of whether patients met criteria with high risk or moderate risk factors.**



References

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Table 1. Provider practices in recommendation of low dose aspirin prophylaxis for preeclampsia prevention during pregnancy divided by criteria met for prophylaxis.

Risk Factors	Provider					P
	Resident	HROB	General OB/GYN	MFM	Midwife	
Prescribed						
≥ 1 High Risk Factor	6 (85.7%)	13 (81.2%)	10 (52.6%)	49 (75.4%)	4 (28.6%)	0.003
≥ 2 Moderate Risk Factors	9 (24.3%)	6 (37.5%)	0 (0.0%)	17 (35.4%)	3 (3.4%)	<0.001
Not Prescribed						
≥ 1 High Risk Factor	1 (14.3%)	3 (18.8%)	9 (47.4%)	16 (24.6%)	10 (71.4%)	0.003
≥ 2 Moderate Risk Factors	28 (75.7%)	10 (62.5%)	64 (100%)	31 (64.6%)	86 (96.6%)	<0.001

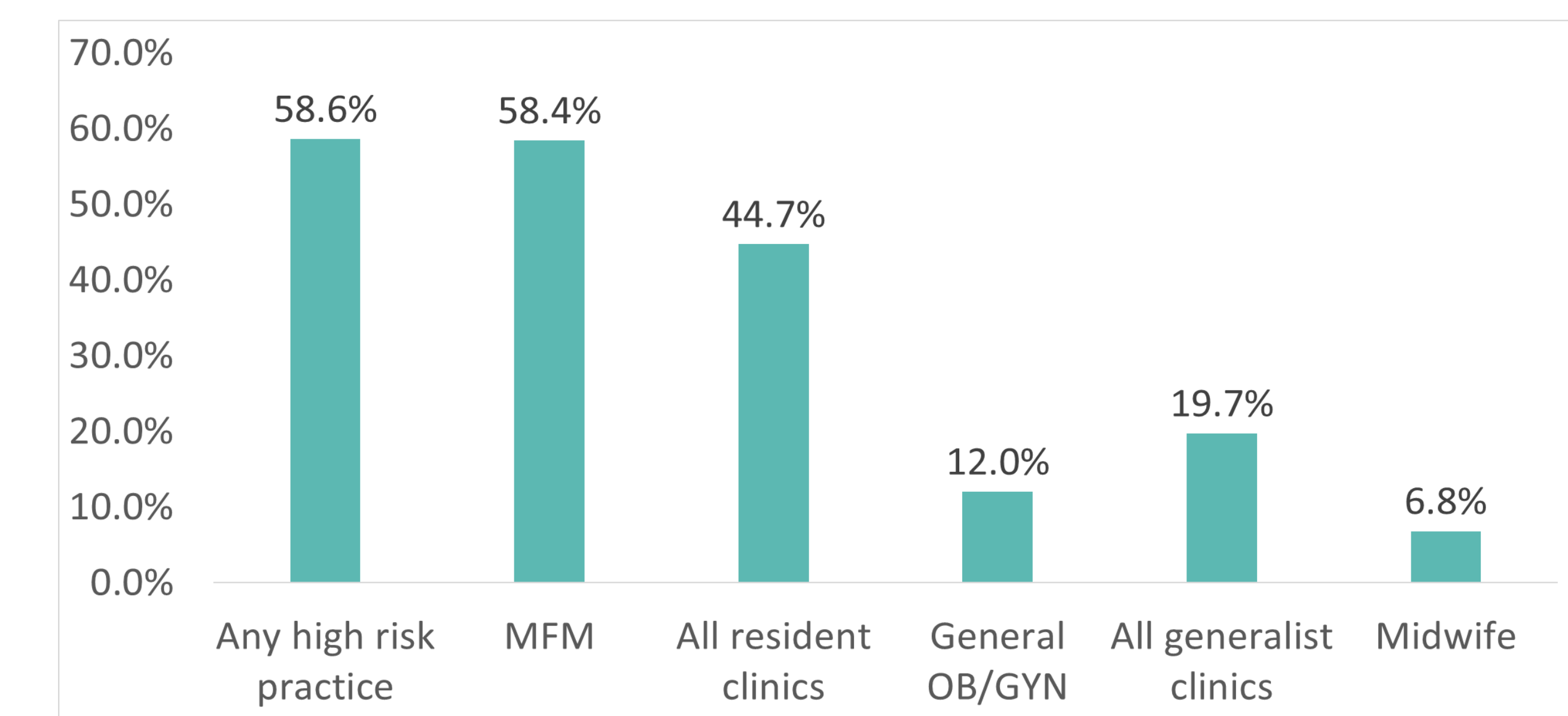


Figure 1. Rates of LDA prescription in patients with risk factors for preeclampsia by provider type ($p < 0.01$)

Discussion

- MFM specialists and resident clinics (low-risk and high-risk obstetrics clinics) appropriately recommended low dose aspirin more often than OB/GYN generalists and midwife practitioners, regardless of whether patients met criteria with ≥ 1 high risk factor or ≥ 2 moderate risk factors.
- Establishing a standardized screening system for patients establishing prenatal care across all obstetrics provider types may increase awareness of risk factors and increase LDA prescribing practices.