INPATIENT VS OUTPATIENT MANAGEMENT OF PREECLAMPSIA

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DELIVERY

- ≥ 37 0/7 weeks for PE with or without severe features
- ≥ 34 0/7 weeks for PE with severe features

INPATIENT MANAGEMENT

- Severe preeclampsia
  - Regardless of the gestational age
- Unreliable patient
- Transportation issues
- Failed outpatient management
- Consider if <34 0/7 weeks

CONSIDERING OUTPATIENT MANAGEMENT

- Reliable patient
- Assess fetal well being
- Ultrasound for growth
- Labs: CBC with platelets, CMP

OUTPATIENT MANAGEMENT

- 34 0/7 weeks to 37 0/7 weeks: PE without severe features
- 34 0/7 weeks to 37 0/7 weeks: Gestational hypertension
- $\leq$ 34 0/7 weeks in uncomplicated PE without severe features

OUTPATIENT MANAGEMENT

- 1-2 times a week clinic visit
- Once a week labs
- Home blood pressure monitoring
- Excellent education on signs and symptoms to return
- Fetal assessment as indicated
- Use the right sized BP cuff

ANTIHYPERTENSIVE MANAGEMENT

- If hypertensive on medication, increase medication
- If not hypertensive, consider starting medication

ARE THERE NEW TOOLS ON THE HORIZON?

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Circulating Angiogenic Factors and the Risk of Preeclampsia

Richard J. Levine, M.D., M.P.H., Sharon E. Maynard, M.D., Cong Qian, M.S., Kee-Hak Lim, M.D., Lucinda J. England, M.D., M.S.P.H., Kai F. Yu, Ph.D., Enrique F. Schisterman, Ph.D., Ravi Thadhani, M.D., M.P.H., Benjamin P. Sachs, M.B., B.S., D.P.H., Franklin H. Epstein, M.D., Baha M. Sibai, M.D., Vikas P. Sukhatme, M.D., Ph.D., and S. Ananth Karumanchi, M.D.

sFlt-1:PlGF RATIO

The NEW ENGLAND JOURNAL of MEDICINE

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Predictive Value of the sFlt-1:PlGF Ratio in Women with Suspected Preeclampsia

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sFlt-1:PlGF RATIO

Table 2. Validation of a Cutoff Point of 38 for the sFlt-1:PlGF Ratio in Predicting Preeclampsia.*

Preeclampsia	Development Cohort	Validation Cohort
	percent (95% CI)	
Within 1 wk		
Negative predictive value: rule out	98.9 (97.3–99.7)	99.3 (97.9–99.9)
Sensitivity	88.2 (72.5–96.7)	80.0 (51.9–95.7)
Specificity	80.0 (76.1–83.6)	78.3 (74.6–81.7)
Within 4 wk		
Positive predictive value: rule in	40.7 (31.9–49.9)	36.7 (28.4–45.7)
Sensitivity	74.6 (62.5–84.5)	66.2 (54.0–77.0)
Specificity	83.1 (79.3–86.5)	83.1 (79.4–86.3)

* Sensitivity was calculated on the basis of the number of participants in whom preeclampsia developed within 1 week or 4 weeks. Specificity was calculated on the basis of the number of participants in whom preeclampsia did not develop within 1 week or 4 weeks. Maternal serum levels of sFlt-1 and PlGF were both measured in picograms per milliliter.

Zeisler, NEJM, 2016

sFlt-1:PlGF RATIO

NEJM Evidence

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ORIGINAL ARTICLE

Circulating Angiogenic Factor Levels in Hypertensive Disorders of Pregnancy

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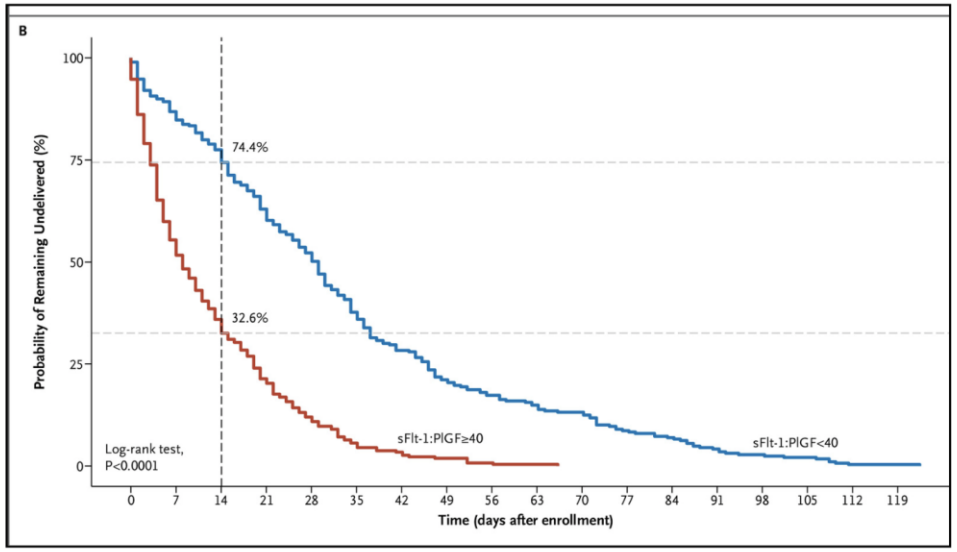
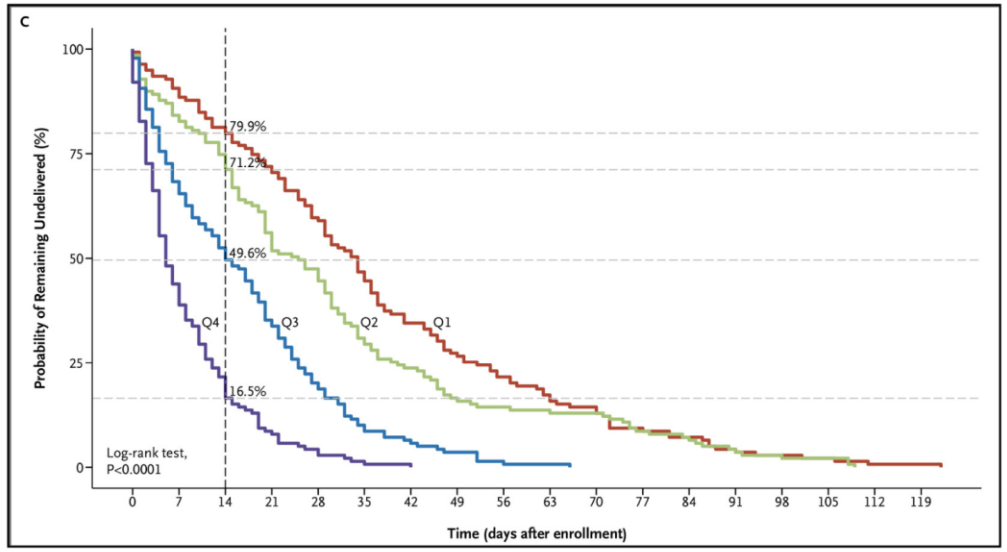
sFlt-1:PlGF RATIO



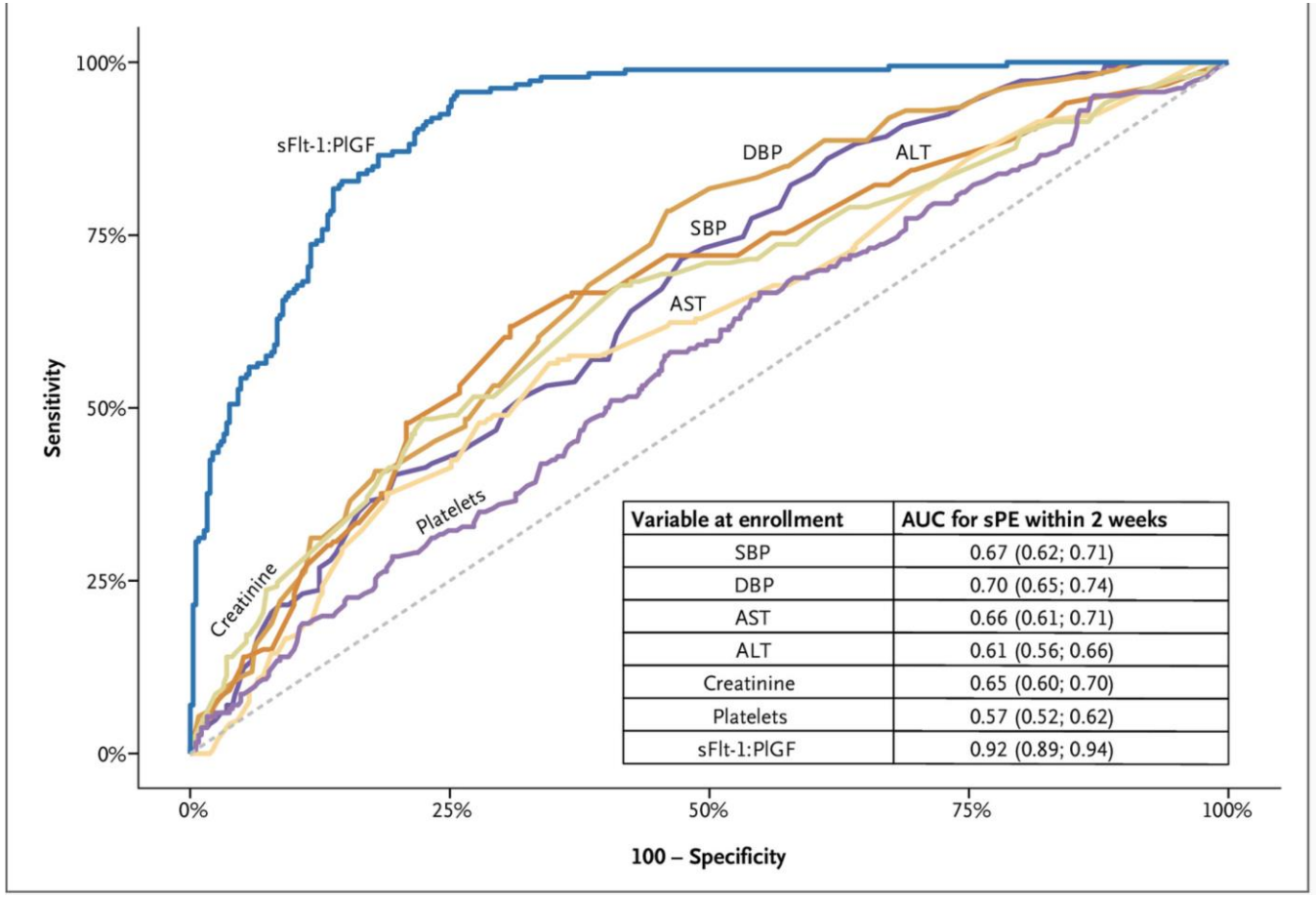
74.4% of women with sFlt-1:PlGF ratio <40 remained undelivered at 2 weeks, compared with 32.6% of women with sFlt-1:PlGF ratio ≥40



Probability of remaining undelivered with:

sflt:PlGF ratio > 220
sflt:PlGF ratio 35-220

sFlt-1:PlGF RATIO



Variable at enrollment	AUC for sPE within 2 weeks
SBP	0.67 (0.62; 0.71)
DBP	0.70 (0.65; 0.74)
AST	0.66 (0.61; 0.71)
ALT	0.61 (0.56; 0.66)
Creatinine	0.65 (0.60; 0.70)
Platelets	0.57 (0.52; 0.62)
sFlt-1:PlGF	0.92 (0.89; 0.94)

CLINICAL APPLICATION

Target	Interpretation Sflt-1/PlGF ratio > 40 (high risk)	Interpretation Sflt-1/PlGF ratio <40 (low risk)	Warning
Patients admitted or extended observation for “rule out preeclampsia”	The patient is at high risk for progression to preeclampsia with severe features within 2 weeks. Consider escalating care and intensify surveillance	The patient is at low risk of progression to preeclampsia with severe features within 2 weeks. Follow standard of care via ACOG guidelines	The results of the test are not stand-alone. The tests should not exclude clinical judgement