Integrating sequential screening for placental dysfunction in the first and second trimester: Results of a cohort of unselected patients.

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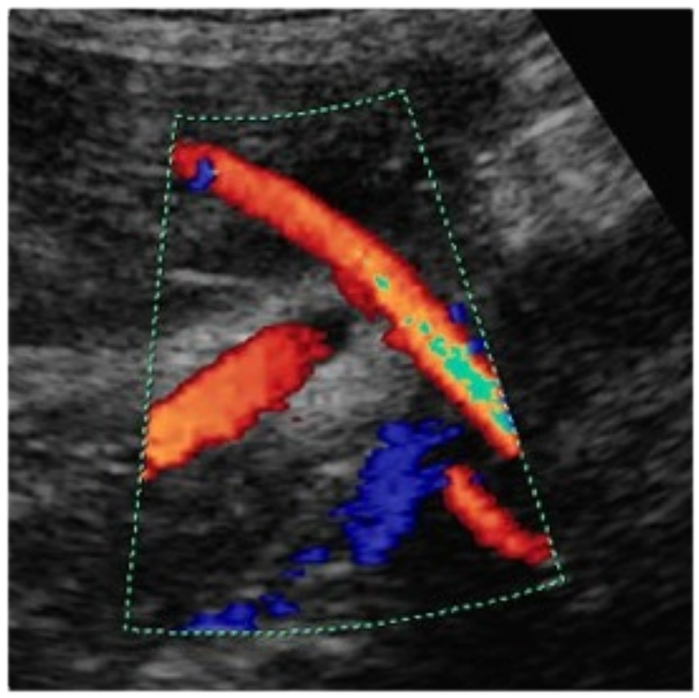

Objetive: Evaluate the performance of sequential 1st and 2nd trimester screening for placental dysfunction in a unselected population.

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Methods

n=952

Miscarriage=11

Fetal abnormality =29

No S2= 295

Incomplete data = 111

n=506

PE: 2,2%

SGA: 4,7%

58

11%

448

89%

S1

\+

Adjusted risk of early PE >2%

\-

11-13 weeks

43%

57%

8%

92%

S2

\+

UA PI >p95

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\+

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18-24 weeks

25

PE: 24%
SGA: 12%

Group I

33

PE: 6%
SGA: 6%

Group II

35

PE: 9%
SGA: 9%

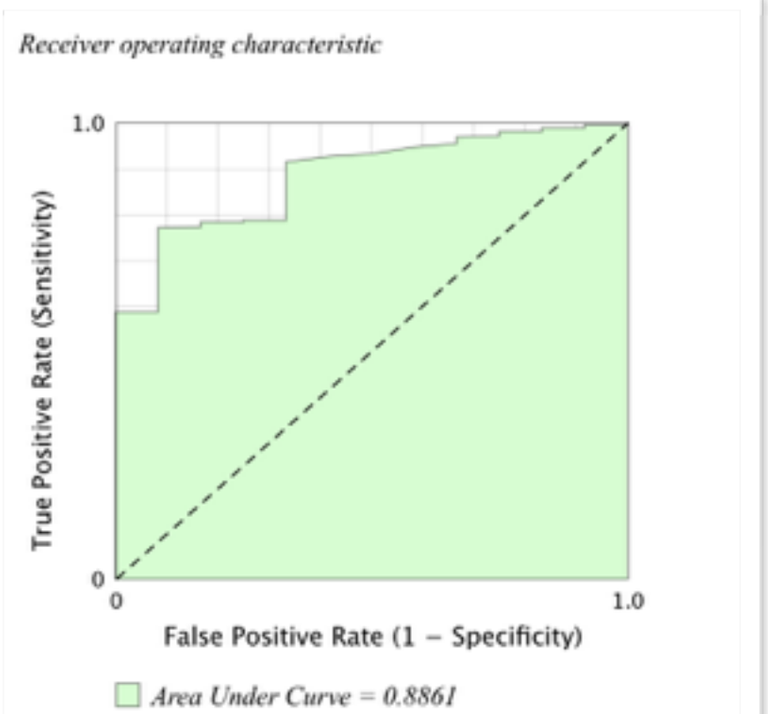
Group III

413

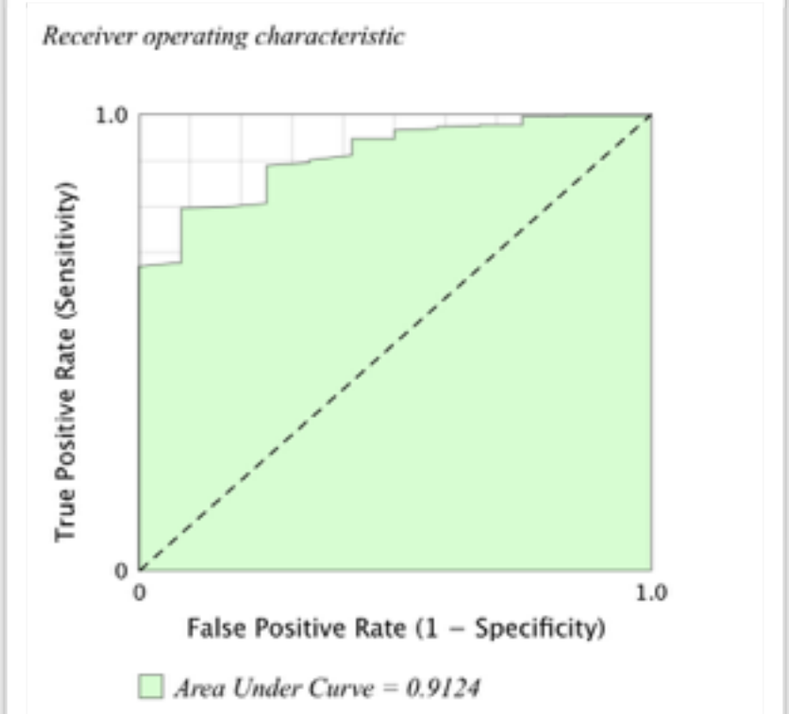
PE: 0%
SGA: 4%

Group IV

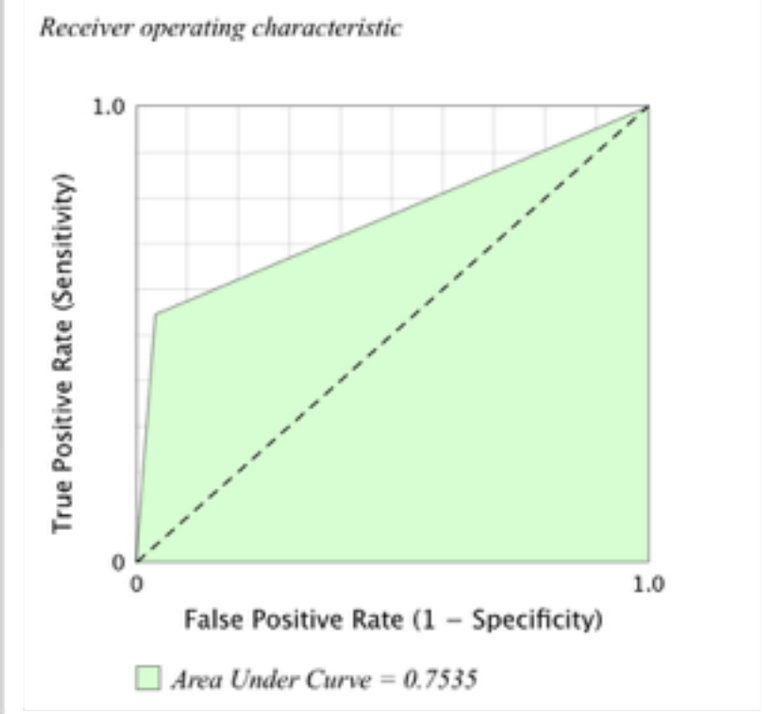
Screening performance for S1, S2 y S1+S2 for the prediction of PE



Sensitivity	**72,70%**
Specificity	90,40%
PFR	**9,60%**
FNR	27,30%
PPV	14,50%
NPV	99,30%
AUDC	**0,89**

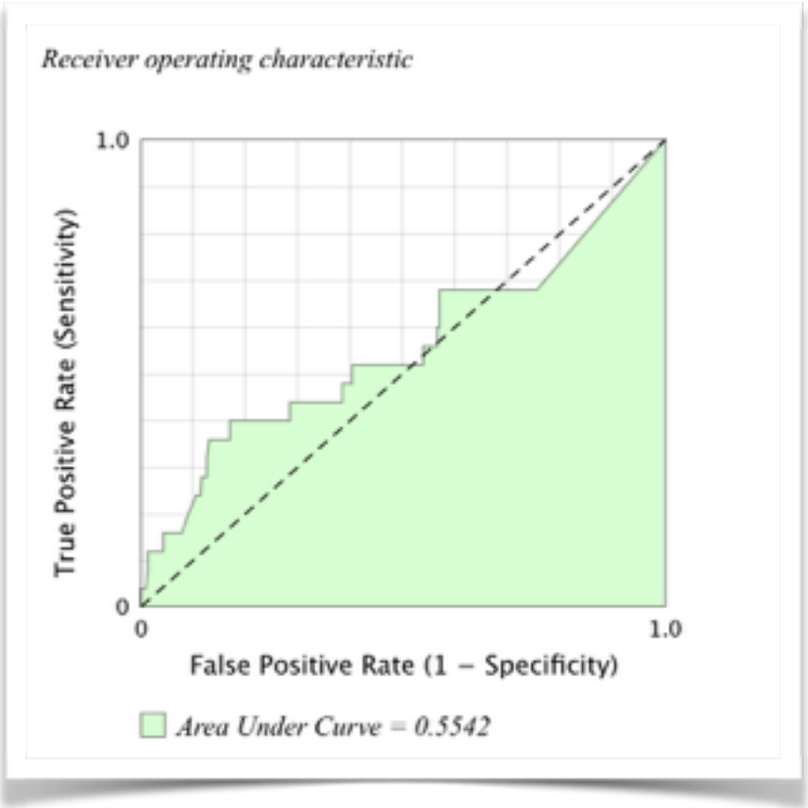


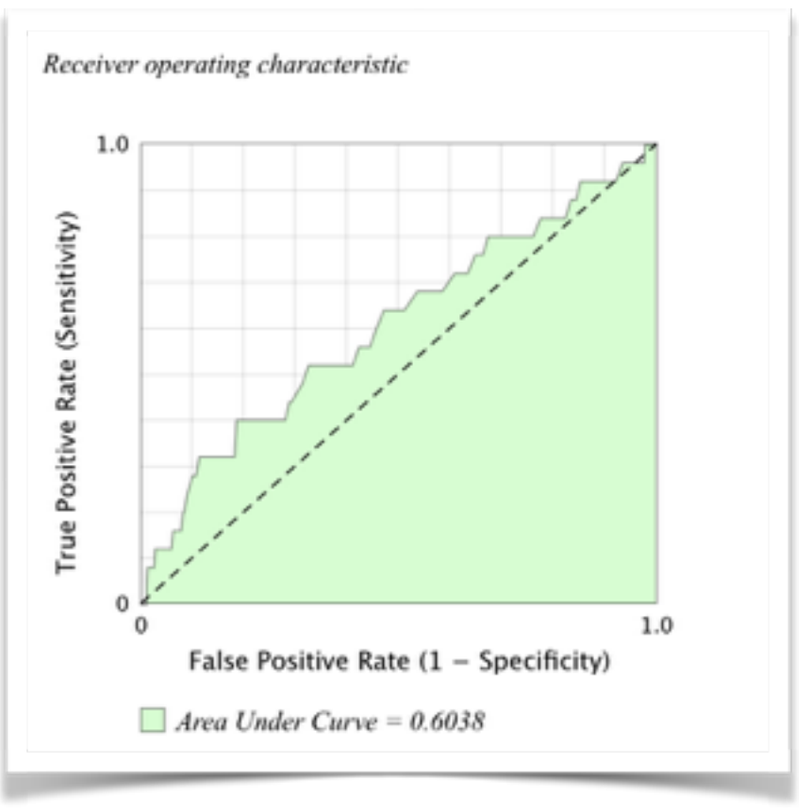
Sensitivity	**81,80%**
Specificity	89,80%
PFR	**10,20%**
FNR	18,20%
PPV	15,30%
NPV	99,50%
AUDC	**0,91**

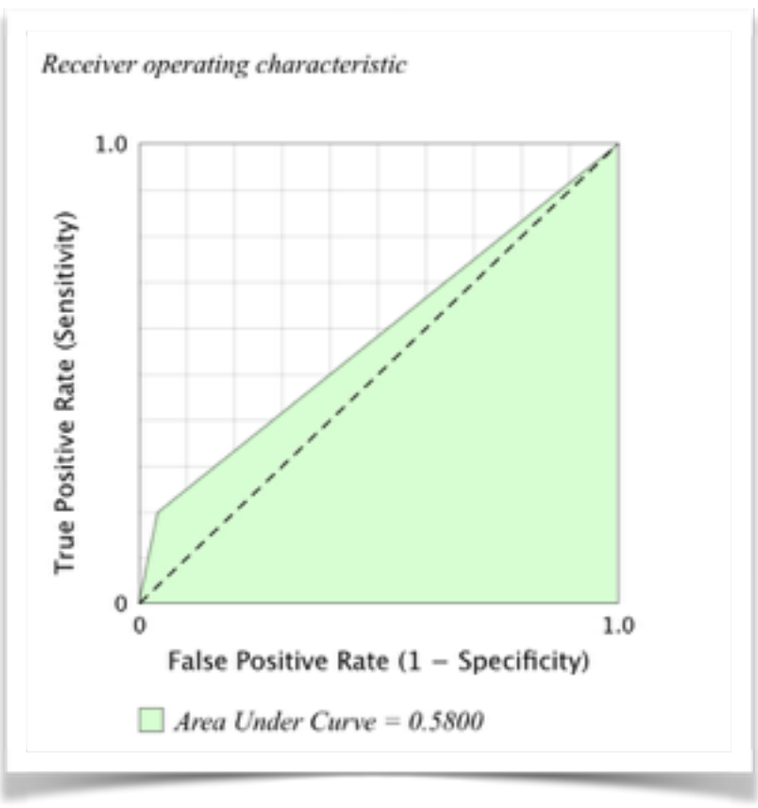


Sensitivity	**54,50%**
Specificity	96,30%
PFR	**3,70%**
FNR	45,50%
PPV	25,00%
NPV	99,00%
AUDC	**0,75**

Screening performance for S1, S2 y S1+S2 for the prediction of SGA





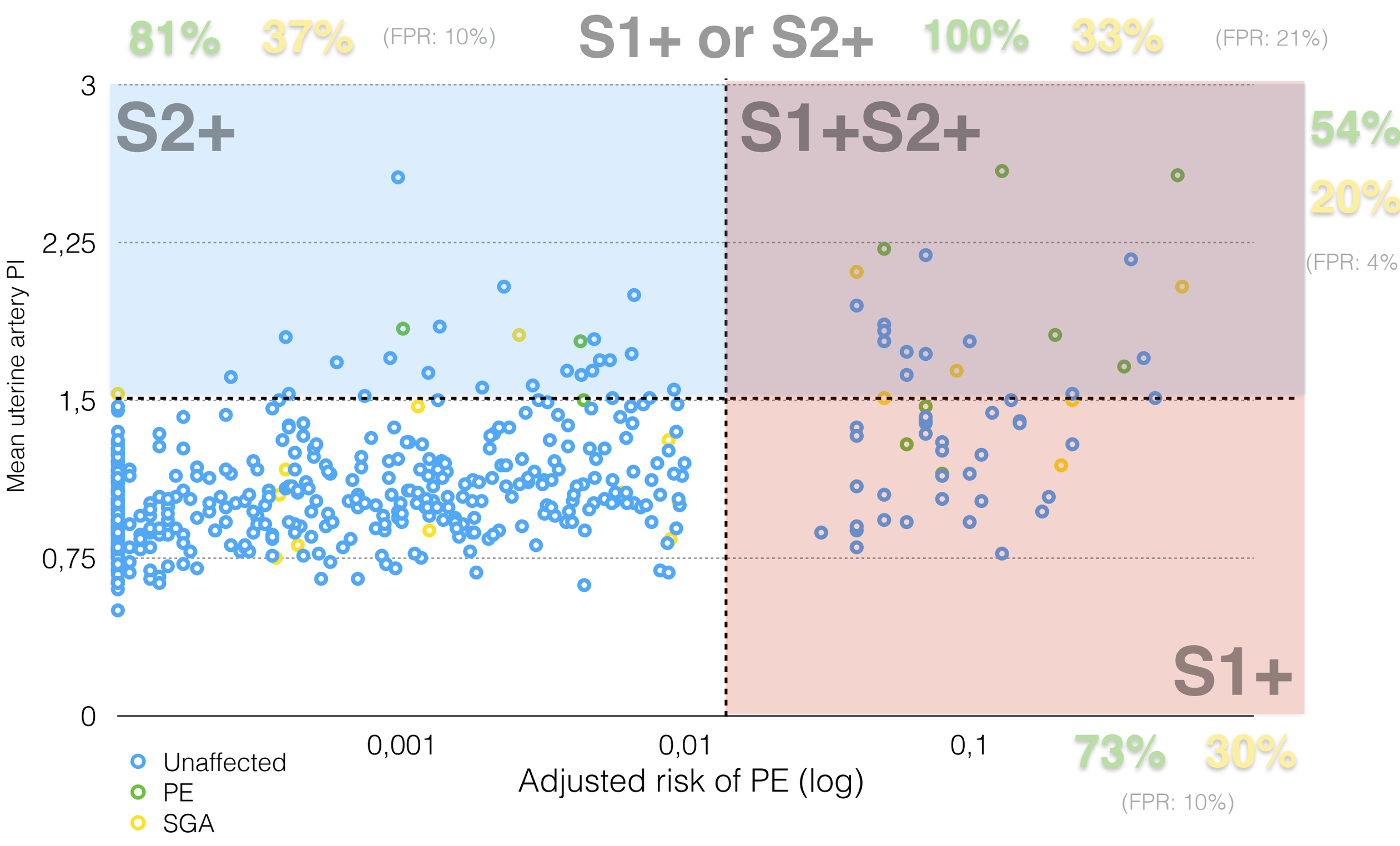


Sensitivity	**30,00%**
Specificity	89,40%
PFR	**10,60%**
FNR	70,00%
PPV	15,00%
NPV	95,30%
AUDC	**0,55**

Sensitivity	**36,70%**
Specificity	88,90%
PFR	**11,1%**
FNR	63,30%
PPV	17,20%
NPV	95,70%
AUDC	**0,60**

Sensitivity	**20,00%**
Specificity	95,60%
PFR	4,40%
FNR	80,00%
PPV	22,20%
NPV	95,00%
AUDC	0,58

Integration: S1 + S2



Conclusions

- The combination of both screenings does not increase the DR but reduces the FPR significantly.

- As expected, patients in G1 had the higher risk of developing both PE and SGA, while none of those in G4 subsequently developed PE.

- Abnormal uterine artery Doppler in the second trimester, is a major risk factor for PE and SGA, even in patients who have had a previous negative screening.

- This, together with the reduction of the FPR, warrants repeating the doppler assessment between 18-22 weeks regardless of the outcome of S1 as it allows for a risk-based individualized monitoring including serial fetal biometry and maternal BP control in those patients with abnormal results.

Thank you