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Predictive models for intra-uterine insemination:
meta-analysis and implications
for improving the performance of models.

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What is known already ?

- Existing predictive models based on retrospective data, with poor precision
- Importance to accounting for prior evidence
- Statistical solutions to aggregate previous models

Study design

- meta-analysis based on Literature (MAL) in selecting all the existing predictive models in IUI
- 12 studies, totalizing 33925 cycles and 15256 patients
- New prognostic model with aggregate results

Main results

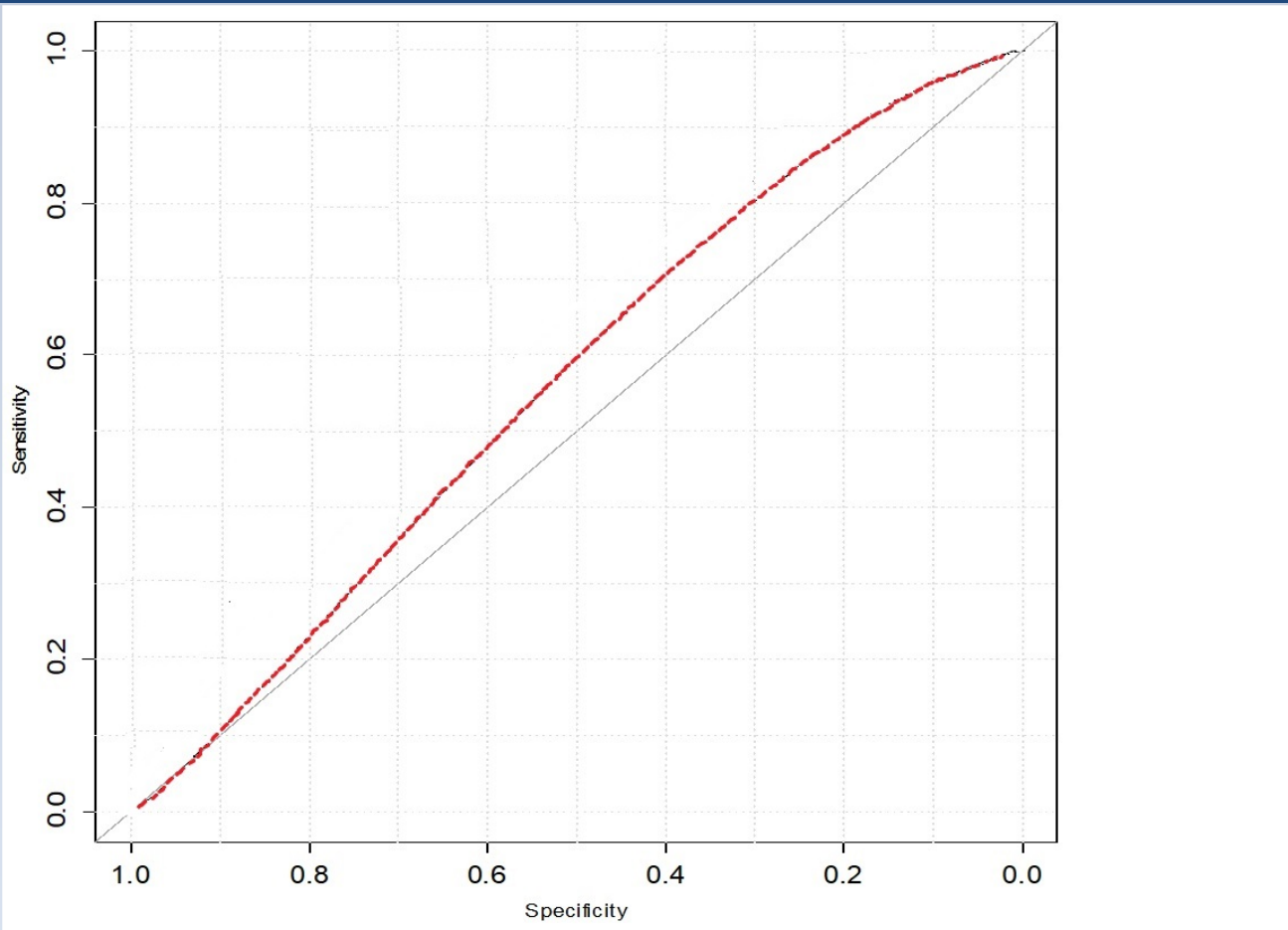
- Huge difference between Center's performance, after adjusting for patient mix

5,9% to 21,7% pregnancy rate/cycle

Main results

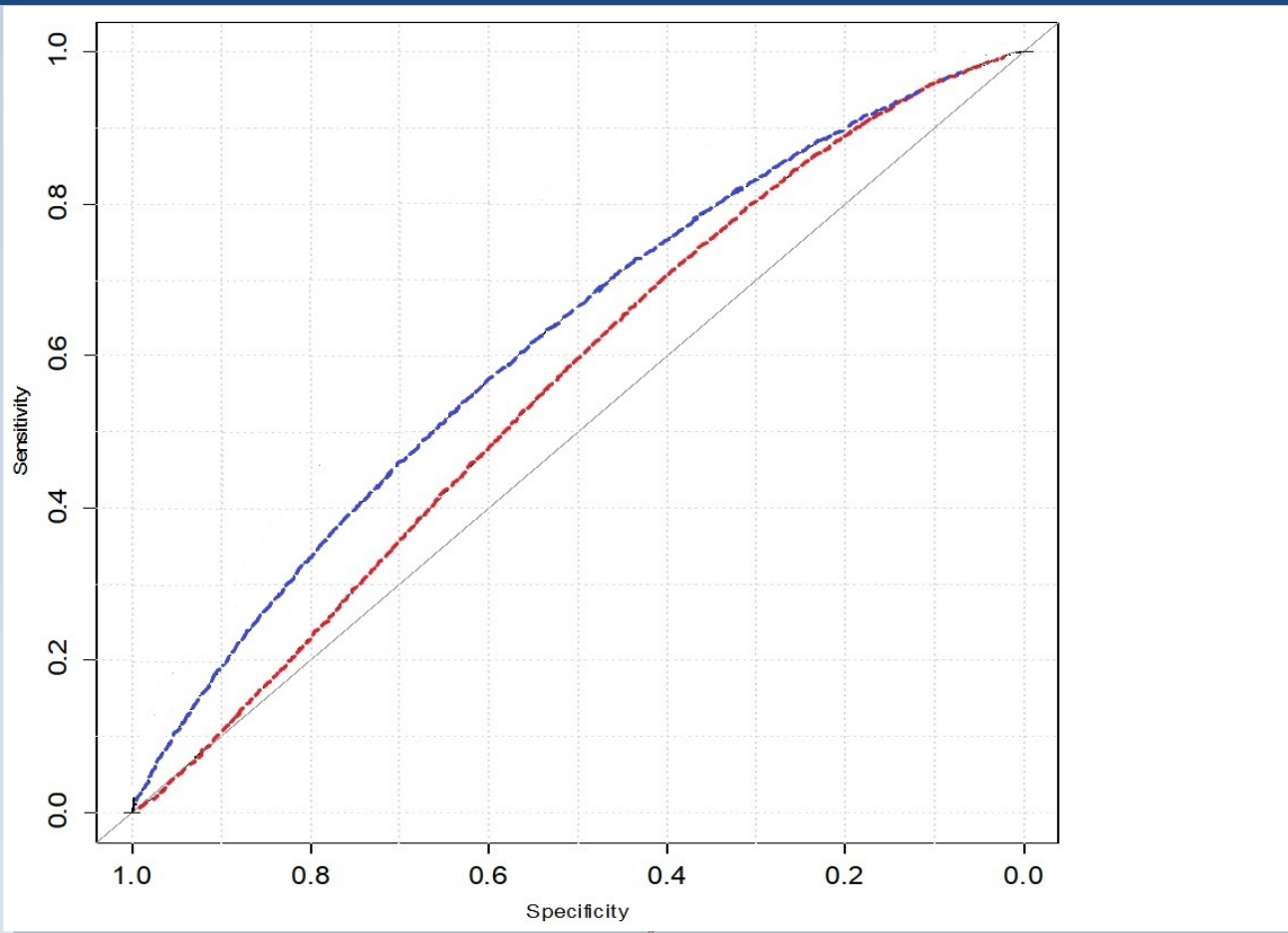
Table 1: Predictors identified in each significant and independent variables for the prediction of clinical pregnancy or live birth

Predictors	Pooled, Estimate	I ²	p
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M0: $\theta = 0,59$

M0 = strict Steures formula

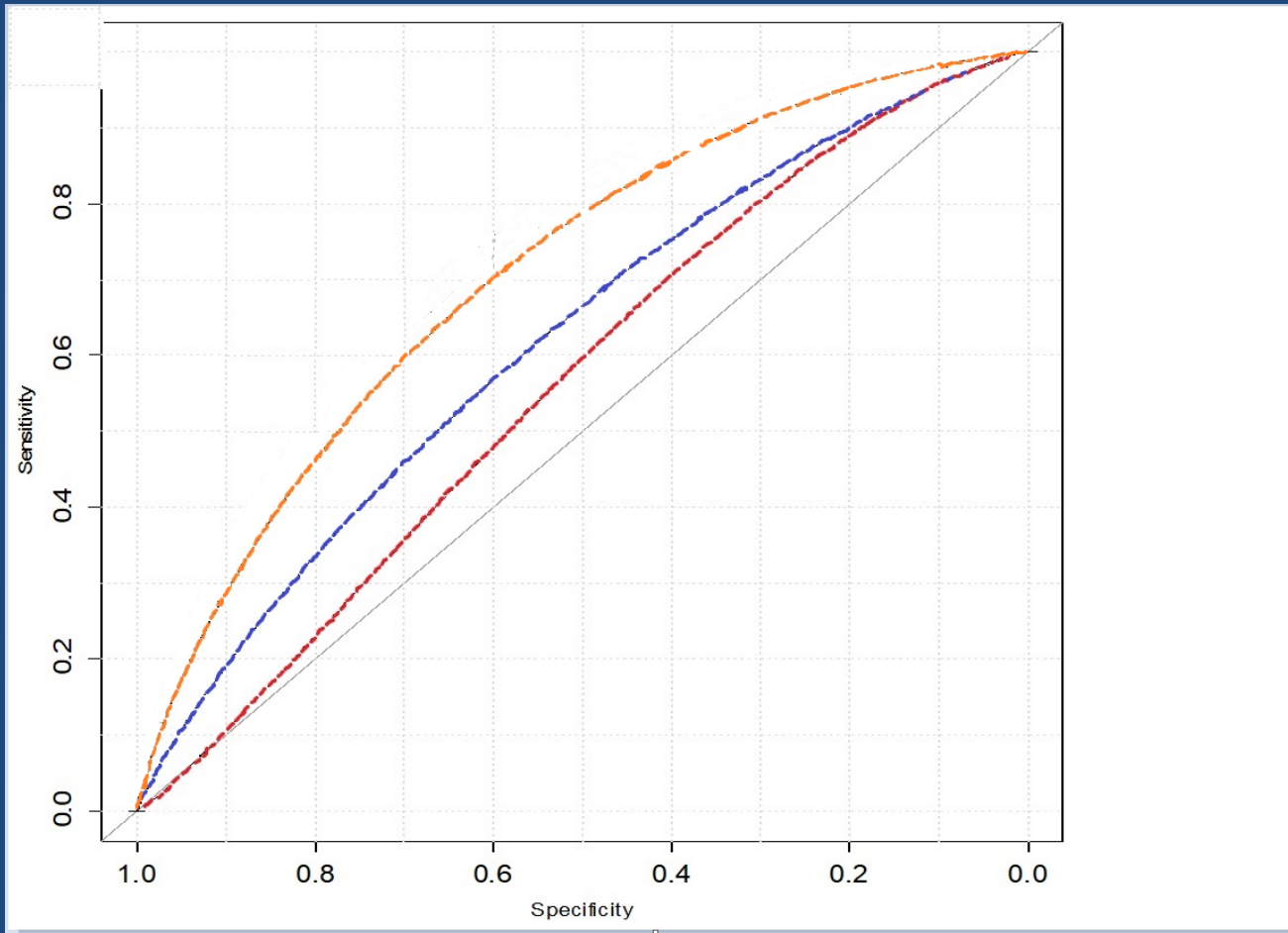


M0: $\theta = 0,59$

M1: $\theta = 0,65$

M0 = strict Steures formula

M1 = M0 + evidence based predictors (age, infertility duration, number of IIU, unexplained or cervical cause, sperm motility)



M0: $\theta = 0,59$

M1: $\theta = 0,65$

M1: $\theta = 0,72$

M0 = strict Steures formula

M1 = M0 + evidence based predictors (age, infertility duration, number of IIU, unexplained or cervical cause, sperm motility)

M2 = M1 + non-evidence based predictors (basal FSH, number of dominant follicles, NTMS)

Conclusion

- It is possible to increase the precision of predictive modeling in IUI in combining prior evidence