Cervical-length in uncomplicated twins as a screening for spontaneous preterm birth
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Objective
Our aim is to compare the performance of one CL measurement in mid-gestation, as ISUOG Practice Guidelines recommends, versus serial measurements as a predictor of spontaneous preterm birth < 34 weeks gestation in twin pregnancies.

Methods
Retrospective chart review of twins followed in a single University Hospital in Argentina from 2013 to 2017. Inclusion criteria were dichorionic or monochorionic diamniotic twins with ≥ 2 CL measurement between 18 and 33rd weeks, with available data of the delivery. Exclusion criteria included any of the following complications: iatrogenic preterm delivery <34 weeks, cerclage, IUGR, fetal death, structural anomalies, polyhydramnios, TTS, sIUGR, TAPS, and TRAP. The screening was considered positive in both strategies if any CL measurement was <25 mm. We report sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV), positive and negative LR and area under the ROC curve (AUC).

Results
Among 777 twins followed in our Unit during the study period, 381 were excluded due to pregnancy complications and 18 due to incomplete follow-up. We included 378 patients: 284 (75%) were dichorionic and 94 (25%) monochorionic. The performance of one CL around 20 weeks showed a sensitivity 13.8% (95% CI, 3.9-31.7), specificity 98.9% (95% CI, 96.9-99.8), PPV 57.1% (95% CI, 18.4-90.1), NPV 91.7% (95% CI, 88-94.6), LR+ 12.83 (95% CI, 3-54.5) and LR- 0.87 (95% CI, 0.75-1.01). The performance of serial measurements showed sensitivity 58.8% (95% CI, 40.7-75.4), specificity 82.3% (95% CI, 77.8-86.3), PPV 25.3% (95% CI, 16.2-36.4), NPV 95.2% (95% CI, 92-97.3), LR+ 3.33 (95% CI, 2.31-4.79) and LR- 0.50 (95% CI, 0.33-0.75). The AUC of the first strategy was 0.58 (95% CI, 0.45-0.70) and in the serial measurements was 0.70 (95% CI, 0.61-0.79) (p<0.001).

Conclusion
In our series, ISUOG strategy of one CL in mid-gestation showed a poor performance as a screening for preterm delivery in twins, while serial CL measurements showed a better performance. However, both strategies have modest performances in screening for preterm delivery in twins.