PURPOSE

- Consumer preferences for two methods of induction of labour, opened the possibility to conduct cost-utility analysis.
- To estimate if dinoprostone vaginal gel or slow release pessary for induction of labour, has a better incremental cost-utility ratio (ICUR).

MATERIALS AND METHODS

- Simulated decision tree for cost-utility analysis, and took into account all end results and drug adverse reactions. For each of the options there were 108 arms in the model.
- Perspective: hospital.
- Time horizon: less than a year so (it was not necessary to discount cost or utilities).
- Population studied: nulliparous pregnant women with Bishop score ≤4. Disutilities and the probabilities of events were extracted from bibliography.
- Cost (€ 2011) included the dinoprostone option, treatment of ARD, inputs and personnel cost for administration, and DRG for each event.
- We tested scenarios in univariant, bivariant and umbral sensibility analysis. Cohort of 10000 for each alternative was tested in stochastic analysis.

RESULTS

- In deterministic analysis, ICUR = –0.916 €/QALY.
- Total cost for dinoprostone gel was 3416.64 € and 8815.45 QALY; versus 2838.81 € and 9446.53 QALY for the pessary.
- Cost utility ratio for dinoprostone gel was 0.387 €/QALY and for the pessary 0.362 €/QALY.
- Univariable sensibility analysis: best option was dinoprostone pessary.
- Umbral analysis: cost of dinoprostone pessary over 877 €.
- Probabilistic sensibility analysis, 2000 Monte-Carlo simulations, showed an ICUR of -0.918 (SD: 0.004) €/QALY.
- For all simulations, dinoprostone gel was dominated.

CONCLUSIONS

- For ripening of the cervix in nulliparous women, 10 mg of dinoprostone pessary is a better cost-utility option than two doses of 0.5 mg dinoprostone endocervical gel.