

FJ Carrera-Hueso <sup>1</sup>, A Ramón-Barrios A , JE Poquet-Jornet JE , F Conde-Fernández <sup>3</sup>, ML Carrera-Hueso ML

<sup>1</sup> Hospital Dr Moliner. Serra, Valencia, <sup>2</sup> Hospital de Denia. Denia, Alicante,

<sup>3</sup>Hospital General Dr José Molina Orosa, Lanzarote, Spain, <sup>4</sup>Hospital Universitari y Politécnic La Fe, Valencia, Spain.

## PURPOSE

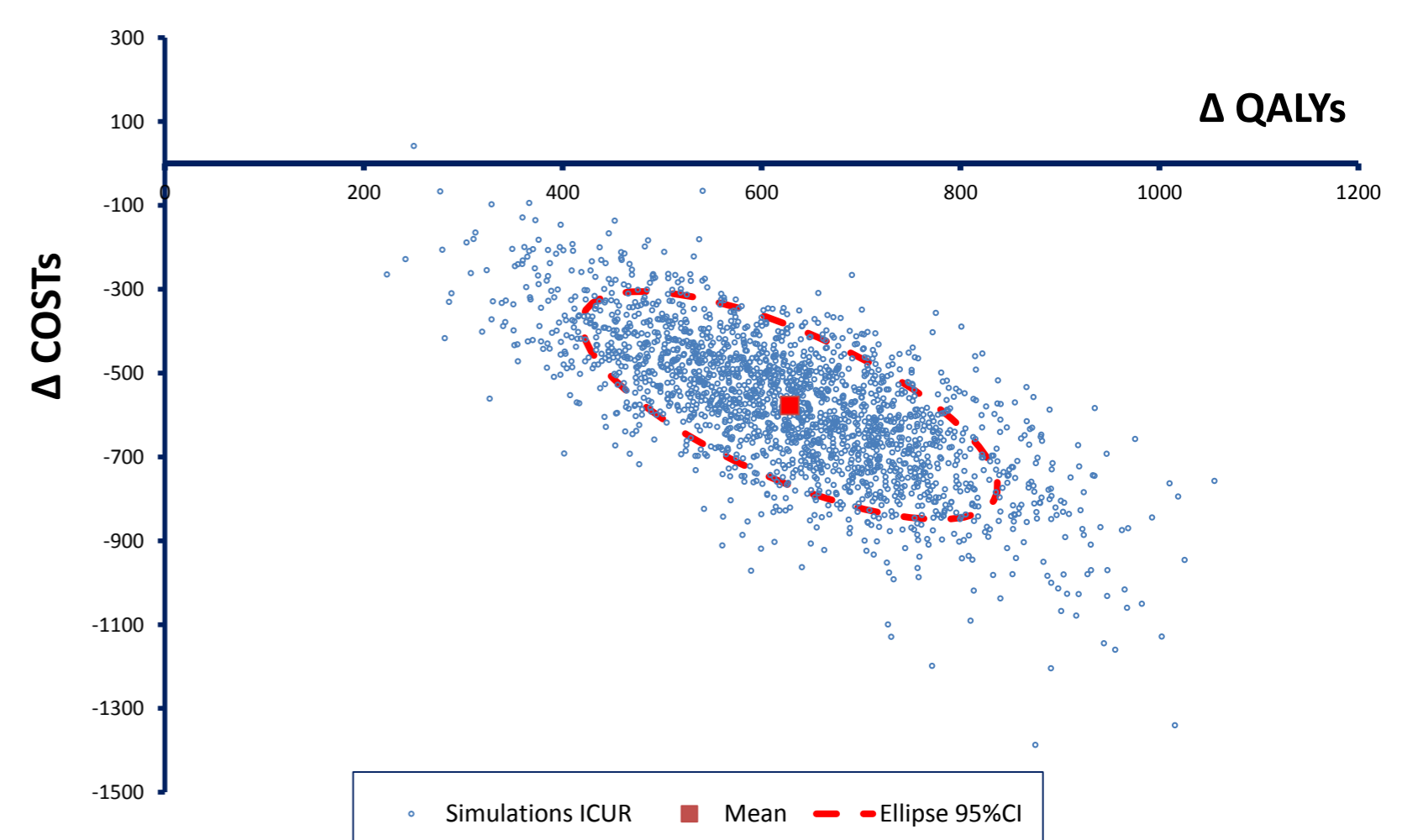
- ✓ Consumer preferences for two methods of induction of labour, opened the possibility to conduct cost-utility analysis.
- ✓ To estimate if dinoprostone vaginal gel or slow release pessary for induction of labour, has a better incremental cost-utility ratio (ICUR).

## 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  $\leq 4$ . 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 dinoprostne 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