



# Gastroenterología y Hepatología

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## CONFERENCIA MAGISTRAL

### Review of methods for measuring and comparing center performance after organ transplantation

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The assessment of outcomes after solid organ transplantation is important because, not only does this information allow patients to make informed decisions about what outcomes to expect and to help choose transplant units, but also it allows clinicians and commissioners to ensure that outcomes are acceptable. Monitoring of outcomes should also allow early detection of problems and so encourage early remedial action to be introduced.

Simple analysis of patient and graft 1 or 5 year survival is helpful but simplistic and outcomes need to be defined more closely. Outcomes may be assessed as patient, graft or transplant survival and may be presented as 1 or 5 year survival or 50% 1 or 5 year probabilities, for instance. Outcomes may be given as absolute outcomes or risk-adjusted. Outcomes should also be considered from either the time of registration or from transplantation. All methods have both advantages and disadvantages and will give

different information. Risk-adjustment is important but may be misleading as not all relevant information may be known, collected or quantified.

The performance of a centre can be compared with other, similar centres or with its past performance and means and confidence intervals assessed. If numbers are too small, then confidence intervals will be wide and so of little help. Conversely, there must be a distinction between clinical and statistical significance. Other methodologies include the cumulative sum (CUSUM) methodology which measures how a centre is performing relative to its past performance by comparing current outcomes with centre-specific expected mortality rates: CUSUM may be expressed as the difference between observed and expected rates in a tabular form. Other methodologies include regression modelling, Funnel plots and cross validation. All three methodologies have different advantages and problems.

Comparison between centres must be done with caution as misinterpretation or mis-understanding can lead to problems such as encouragement of risk-averse behaviour, inhibition of research and innovation and harm to training. So while transparency is important to ensure quality, the monitoring and any subsequent intervention, must be done with sensitivity and common sense.