

Mr Christopher Feinmann
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National Institute for Clinical Excellence (NICE)
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Your ref:

Our Ref: XXXXXXXXXX

23 July 2008

Dear Mr Feinmann

RE: HTA Appraisal; Machine perfusion systems and solutions for cold (static) storage of donated kidneys.

Thank you for continuing to involve Kidney Research UK upon this consultation as it progresses through to the next stage. Our submission is presented to NICE based on the advice received from our independent expert advisors, this having been reviewed by the Charity as representing its position as a stakeholder. For a list of our current expert advisors please go to www.kidneyresearchuk.org/content/view/26/49/

Kidney Research UK has funded research assessing various aspects of kidney preservation and long-term outcomes in transplantation and would like to highlight that in reviewing the assessment report there are still key areas of research suggested in our comments below which would merit further consideration and allocation of central funding resources.

The appraisal has demonstrated that the evidence available is limited and as a result there are no clear recommendations either to the type of preservation fluid used or to whether machine perfusion was of benefit. There were only 13 articles suitable for analysis and two systematic reviews were excluded. There were three completed Randomised Clinical Trials and two ongoing Randomised Clinical Trials. Only seven of the studies had been published in peer reviewed journals. The two ongoing ones which appear well designed and which look at 'Donation after Cardiac Death' and Expanded Criteria Donors, separately may give some clear cut recommendations and therefore perhaps the Appraisal Committee should consider delaying making its final report and recommendations until further data is available from these studies. There does not appear to be sufficient evidence available from the remaining studies to make any firm recommendations.

The Charity believes that this is an important area for appraisal as the type of deceased donor kidneys available for transplantation has changed over the last few years, with an increasing number of Donation after Cardiac Death (DCD) donors and Expanded Criteria Donors (ECDs). In the former there is an increased incidence of delayed graft function with a variable discard rate, but of those organs used long term graft survival is equivalent to standard Brain Stem Dead (BSD) donors. In ECDs there are more concerns

about inferior short and long term graft outcome. It is therefore important to minimise cold ischaemic damage to optimise outcomes and hence there is a need to demonstrate what is the best preservation solution for static cold storage and the place of hypothermic machine perfusion.

We support the objectives of the appraisal which is to seek to demonstrate the most effective and cost-effective way of storing kidneys donated from deceased donors. These are clear cut objectives. The cost-utility model rightly looks at the impact both of short term and long term outcomes. It would be easy to confine the analysis to short term outcomes of donor graft failure and time of hospitalisation, but the impact of early ischaemic damage may have a longer term impact. It is therefore not surprising that the analysis shows that even with small improvements in long term graft survival that there are significant cost benefits to be realised. This long term view needs to be considered and supported if the costs of the most appropriate early intervention are greater.

Within the analysis both types of donor organs have been included together. It would be preferable to consider the effect of different preservation fluids and machine perfusion on each (DCD and ECD) separately as there are different issues related to each. However we accept that this may not be possible owing to the limited number of suitable studies identified and analysed. Nevertheless, this should be acknowledged.

We would support the point made in the report about Soltran in that it is cheap and effective for kidney preservation, but that it is not appropriate for preservation of other solid organs. Since the majority of organ donors donate multiple organs; >90% of Brain Stem Death donors and 30% of Donation after Cardiac Death donors this should be borne in mind when the final recommendations are made.

In summary, it is apparent from this analysis that there is currently not the available evidence to show what is the most effective way of storing kidneys donated from deceased donors. Therefore there is scope for further Randomised Clinical Trials that are designed to answer the first objective of this analysis, looking at both preservation solutions and machine perfusion systems, which may be more feasible to run following a national service for organ retrieval. And as commented in the analysis, the outworking of the recommendations of the Organ Donation Taskforce may help to facilitate this and Kidney Research UK has been active in providing input into the ODTF.

Yours sincerely,

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