

# **A discrete choice experiment to explore patients' preferences for kidney transplant monitoring by video-consultation.**

Solène BRUNET-HOUDARD<sup>1,2,3</sup>, Fanny MONMOUSSEAU<sup>1,2</sup>, Emmanuel RUSCH<sup>1,2</sup>, Magali GIRAL<sup>3,4</sup>, Philippe TESSIER<sup>3</sup>

1. Health-economic evaluation unit, University Hospital of Tours, France

2. EA7505 « Education, Ethics, Health », University of Tours, France

3. SPHERE (UMR INSERM 1246), University of Nantes, University of Tours, France

4. Nephrology, University Hospital of Nantes, France

Corresponding author: Solène BRUNET-HOUDARD, [solene.brunet-houdard@chu-tours.fr](mailto:solene.brunet-houdard@chu-tours.fr), Tel: +33.2.18.37.08.97 / Fax : +33.2.47.47.84.33

## **WORK IN PROGRESS**

*Very preliminary draft, please do not spread.  
Comments welcome.*

### **Abstract**

#### ***Introduction***

We conducted an exploratory Discrete Choice Experiment (DCE) over a sample of 68 kidney transplanted patients to determine their preferences for the modalities of their follow-up consultations by nephrologist including the possibility of a never experienced modality relying on teleconsultations.

#### ***Methods***

A DCE survey with a two alternatives design including a status quo alternative was presented in four choice sets to the participants who were currently followed by face-to-face medical consultations in the University Hospital of Nantes or in a local hospital. Hypothetical scenarios of follow-up consultations were described using four attributes with varying levels: flexibility in consultations planning, type of consultation (whether face-to-face at the hospital or a teleconsultation) and the time it requires combined into one single attribute, the risk of graft failure and the patients' out-of-pocket expenses per consultation. The econometric analysis was undertaken by fitting conditional logit model with and without interactions terms to explore the influence of age and gender on preference weights. We also estimated mixed logit regression models allowing for correlations between the random parameters to tackle the issue of unobserved individual heterogeneity in terms of variations in tastes and scale.

#### ***Results***

The level of kidney graft failure and the out-of-pocket expenses were highly significant and were negatively correlated to the probability of choosing an alternative. The possibility to plan the consultations with more flexibility than usual do not seem to determine patients' choices. We find only weak evidence of the importance of the type of consultation when controlling for both observed and unobserved heterogeneity such that the participants prefer face-to-face in-hospital consultations to teleconsultations. Regarding individual heterogeneity, we observe no influence of gender and age, but the estimation of mixed logit models suggests the presence of unobserved heterogeneity, especially with regards to the type of consultation.

#### ***Conclusions***

Our exploratory study suggests that kidney transplanted patients are primarily interested by the outcomes of their follow-up consultation (risk of graft failure and expenses) rather than procedural aspects such as the type of consultation and the possibility to plan the consultations with more flexibility than usual. Notably, we found weak evidence suggesting that the patients may prefer in-hospital consultations to teleconsultations, all other things being equal. This could be an obstacle in promoting teleconsultations. However, it may be interesting to devote future researches to explore more in depth individual heterogeneity regarding the preference for the type of consultation.

#### ***Keywords***

Discrete choice experiment, Telemedicine, Preferences, Mixed logit, Kidney transplantation.