HEALTH-STATE UTILITY VALUES AND THEIR TIME TO DETERIORATION IN INFORMAL CAREGIVERS OF ELDERLY PATIENTS WITH CHRONIC DISEASES

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INTRODUCTION

OBJECTIVES



Informal caregivers

- Informal caregivers' health-related quality of life (HRQoL) is closely related to the HRQoL of the helped person^{1,2}.
- No study has evaluated the impact of any intervention on changes in health state utility values (HSUVs) over time among informal caregivers.
- The time-to-HRQoL score deterioration (TTD) is an approach providing results that are readily meaningful to clinicians and more likely to influence clinical decision-making³.
- **Primary aim**: to assess HSUVs in caregivers of elderly patients at baseline, 6, 12, 18 and 24 depending months, on whether informal they social worker received support.
- Secondary aims: to investigate the TTD and factors associated with change in HSUVs.

 included in the ICE study (Pozet *et al.* Trials 2016) : a French multicentre openlabel cohort of caregivers of elderly patients with chronic diseases;

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- randomly assigned (1:1 ratio) to either the supportive intervention group (SIG), receiving an informational booklet and social worker intervention, or the control group (CG) receiving only the booklet.
- HSUVs assessed using EQ-5D-3L utility index scores⁴ and their interquartile range.
- Mixed models for repeated measures were used including all timepoints up to M24.
- TTD defined as the time interval from randomization to the occurrence of a decrease of at least 0.08 points of the EQ-5D-3L utility index score compared to baseline and its 95% confidence interval.
- Factors such as gender, age, marital status, professional situation or household income were analysed to identify their association with TTD in a 2-step approach, using univariate Cox proportional hazards regression model followed by a multivariate model.

RESULTS

- Among 179 included caregivers, completion rates reached reliable percentages for all follow-up timepoints:
 - SIG: 75% at M12 and 77% at M24;



- CG: 68% at M12 and 67% at M24.
- Median EQ-5D-3L utility index scores:
 - 0.89 [0.80-1.00] at baseline (n=177);
 - 0.80 [0.80-0.89] at M6 (n=125);
 - 0.80 [0.73-0.91] at M24 (n=81).
- The percentage reporting some or extreme problems on five EQ-5D-3L dimensions remained almost stable over time.
- A deterioration rate of 62% (n=109) was observed in EQ-5D-3L utility index score
 - SIG: median TTD of 9.5 months [6.3-14.4];
 - CG: median TTD of 9.1 months [6.2-14.9];
 - Hazard ratio = 1.06 [0.73-1.54], p-value = 0.76 (Figure 1).

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Figure 1: TTD of EQ-5D-3L utility index score
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Table 1: Caregivers adjusted mean change over time (mixed model for repeated measures) in EQ-5D-3L utility index score

| | Supportive intervention group | | | Control group |
|------------------------------|-------------------------------|------------------|----------------------|------------------|
| | Adjusted mean change | 95% CI | Adjusted mean change | 95% CI |
| EQ-5D-3L utility index score | -0.03 | [-0.06 to -0.01] | -0.06 | [-0.08 to -0.03] |
| M12 | -0.05 | [-0.09 to -0.01] | -0.06 | [-0.10 to -0.02] |
| M24 | -0.04 | [-0.08 to +0.00] | -0.07 | [-0.11 to -0.02] |

- **Caregiver professional situation** was the only independent predictor of TTD (pvalue = 0.03) in the multivariate analysis.
- No clinically significant differences were shown at M12 or M24 for EQ-5D-3L utility index score in the mixed models for repeated measures (Table 1).

CONCLUSIONS

- Our study provides a **HSUVs catalog** across different caregiver profiles and at various follow-up timepoints, which can inform future economic evaluations.
- Caregivers on sick leave, unemployed or job training had statistically significantly longer TTD in comparison with retired or professionally active caregivers.
- This result must be interpreted with caution, considering the significant heterogeneity of this population. However, we can assume that the availability of these caregivers could be their common feature.

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