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## Oral Communication Abstract
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# The rapid decline of kidney function is associated with the rapid decline of health-related quality of life in chronic kidney disease: from the KNOW-CKD study

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**Objectives:** We performed an analysis to evaluate the changes in the health-related quality of life (HR-QOL) in patients with chronic kidney disease (CKD) according to the decline of kidney function.

**Methods:** We analyzed 970 patients from the KoreaN cohort study for Outcome in patients With CKD (KNOW-CKD) who assessed HR-QOL at baseline and 5 years later. HR-QOL was assessed by the short from-36 questionnaire composed of physical component summary (PCS) and mental component summary (MCS). The rapid decline of kidney function was defined as estimated glomerular filtration rate (eGFR) < -3 ml/min/1.73m$^2$/year. The rapid decline of HR-QOL was defined as lower than the median of the changes of HR-QOL values (100 × [5-year HR-QOL- baseline HR-QOL]/baseline HR-QOL).

**Results:** Among 970 patients, there were 360 (37.1%) patients in the rapid decline of kidney function group. Baseline PCS values were lower in the rapid decline of the kidney function group compared with the non-rapid decline of the kidney function group ($P$=0.034). Baseline MCS values were similar between the groups ($P$=0.193). Compared with the baseline PCS, the 5-year PCS decreased in both the non-rapid ($P$=0.029) and the rapid ($P$ < 0.001) decline of the kidney function group. Five-year MCS was significantly decreased only in the rapid decline of the kidney function group ($P$ < 0.001). In multivariable logistic regression analysis, the rapid decline of kidney function (Odds ratio [OR], 1.38; 95% confidence interval [CI], 1.02-1.85; $P$=0.035) and low total cholesterol (OR, 0.99; 95% CI, 0.99-1.00; $P$=0.019) were associated with the rapid decline of PCS. The rapid decline of kidney function (OR, 1.66; 95% CI, 1.23-2.22; $P$=0.001) and low baseline eGFR (OR, 0.99; 95% CI, 0.98-0.99; $P$=0.022) were associated with the rapid decline of MCS.

**Conclusions:** The rapid decline of kidney function was associated with the rapid decline of HR-QOL in predialysis CKD.