

## **Prognostic stratification of patients with advanced renal cell carcinoma treated with sunitinib: comparison with the Memorial Sloan-Kettering prognostic factors model.**

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### **Source**

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### **Abstract**

#### **BACKGROUND:**

The treatment paradigm in advanced renal cell carcinoma (RCC) has changed in the recent years. Sunitinib has been established as a new standard for first-line therapy. We studied the prognostic significance of baseline characteristics and we compared the risk stratification with the established Memorial Sloan Kettering Cancer Center (MSKCC) model.

#### **METHODS:**

This is a retrospective analysis of patients treated in six Greek Oncology Units of HECOG. Inclusion criteria were: advanced renal cell carcinoma not amenable to surgery and treatment with Sunitinib. Previous cytokine therapy but no targeted agents were allowed. Overall survival (OS) was the major end point. Significance of prognostic factors was evaluated with multivariate cox regression analysis. A model was developed to stratify patients according to risk.

#### **RESULTS:**

One hundred and nine patients were included. Median follow up has been 15.8 months and median OS 17.1 months (95% CI: 13.7-20.6). Time from diagnosis to the start of Sunitinib ( $\leq 12$  months vs.  $>12$  months,  $p = 0.001$ ), number of metastatic sites (1 vs.  $>1$ ,  $p = 0.003$ ) and performance status (PS) ( $\leq 1$  vs  $>1$ ,  $p = 0.001$ ) were independently associated with OS. Stratification in two risk groups ("low" risk: 0 or 1 risk factors; "high" risk: 2 or 3 risk factors) resulted in distinctly different OS (median not reached [NR] vs. 10.8 [95% confidence interval (CI): 8.3-13.3],  $p < 0.001$ ). The application of the MSKCC risk criteria resulted in stratification into 3 groups (low and intermediate and poor risk) with distinctly different prognosis underlying its validity. Nevertheless, MSKCC model did not show an improved prognostic performance over the model developed by this analysis.

#### **CONCLUSIONS:**

Studies on risk stratification of patients with advanced RCC treated with targeted therapies are warranted. Our results suggest that a simpler than the MSKCC model can be developed. Such models should be further validated.