1464P The impact of impaired renal function on the effectiveness of 1st Line Immuno-Oncology combination therapies in metastatic renal cell carcinoma (mRCC): Results from the International Metastatic RCC Database Consortium (IMDC)

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Background

The impact of impaired renal function on the efficacy of contemporary 1st line immuno-oncology combination therapies for mRCC in a real world setting is unknown.

Methods

Using the IMDC, a large, multinational, observational cohort study, we identified patients treated with 1L ipilimumab nivolumab (IOIO) or approved PD-1(L1)/vascular endothelial growth factor (IOVE) inhibitor combinations (axitinib/pembrolizumab, cabozantinib/nivolumab, axitinib/avelumab, lenvatinib/pembrolizumab).

Baseline characteristics, objective response rate, time to treatment failure and overall survival were captured. Modification of diet in renal disease (MDRD) was used to calculate the estimated glomerular filtration rate (eGFR) at initiation of therapy. IMDC risk group adjusted logistic and Cox regressions were used.

Results

Out of 1059 patients with a documented eGFR, 756 (71.4%) received IOIO and 303 (28.6%) received IOVE.

Patients with an eGFR <60 (n=513) were more likely to be older (median 65.1 vs 61.3 yrs p<0.0001) and have had a previous nephrectomy (82.4% vs 50.6% p <0.0001) than those with an eGFR ≥60.

However, the eGFR <60 group, was less likely to have poorer prognostic features such as bone metastases (27.7% vs 38.6% p=0.0002) and worse IMDC risk status (poor 22% vs 36 p<0.0001) than patients with an eGFR ≥60.

An eGFR <60 did not have an impact on likelihood of objective response (OR 0.93 95% CI 0.70 – 1.23 p=0.49) or time to event outcomes such as time to next treatment (HR 1.13 95% CI 0.94 – 1.36 p=0.18) or overall survival (HR 1.24 95% CI 0.96 – 1.59 p=0.09). Modelling eGFR as a continuous variable found that every 1ml/min drop in eGFR lead to a HR 0.999 (95% CI 0.995 – 1.002 p=0.5073).

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Conclusions

Baseline renal function does not adversely impact the effectiveness of 1L immuno-oncology combination therapies in mRCC.

Clinicians should not restrict access to these therapies based on renal function.

Table – Effectiveness Outcomes based on eGFR

	eGFR ≥ 60ml/min n=546	eGFR < 60ml/min n=513	P value
Objective Response Rate *Missing*	42.3% 101	43.20% 64	0.77
Median Time to Next Treatment	16.3 months (95% CI 13.4 – 22.8 months)	18.4 months (95% CI 15.4 – 22.5)	0.68
Median Overall Survival	53.5 months (95% CI 41.41 – Not Estimable)	44.4 months (95% CI 36.5 – 53.5 months)	0.72

Figure – Kaplan–Meier OS curves