

Real word data of first-line metastatic renal cell carcinoma (mRCC) treatment choice in a tertiary centre in the UK

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Objective:

To review the first-line treatment choices for mRCC in a tertiary hospital.

Methods:

Retrospective data analysis of 131 patients who received treatment at University Hospitals of Leicester NHS Trust from 2018-2024. Data included gender, prior nephrectomy, histology, IMDC score and survival outcomes. Analysis was conducted using SPSS version 29. Patient demographics are detailed in Table 1.

Results:

Most common regimen was Ipilimumab+nivolumab (IN) 26%, followed by Avelumab+axitinib (AA) and pazopanib (P) 25.2% each. Other regimens were Sunitinib (S) 13%, Cabozantinib (C) 8.4% & Lenvatinib+Pembrolizumab (LP) 2.3%.

The mPFS for IN (7.7 months), LP (17 months), AA (10.2 months), S (24.7 months), P (18.2 months) and C (8.4 months); $p=0.093$. The mOS for IN (22 months), LP (19.48 months), AA (26.5 months), S (21.6 months), P (60 months) and C (27.7 months); $p=0.186$.

As expected, the poor risk IMDC group had the worst mOS (13.7 months), while there was minimal disparity between favorable (35 months) and intermediate (37.8 months); $p=0.001$.

Of the 90 patients who progressed after the first line, 65% ($n=58$) received second-line treatment. The remaining did not get additional treatment due to clinical decline (22%), toxicities (10%) and death (3.3%). Most patients received TKI in the second line after IO or TKI progression (67.2%). Few patients received Nivolumab (32.7%) after TKI progression.

Conclusions: TKIs demonstrated the highest PFS and OS in our population signifying that this remains a valid option for patients in the first-line setting. Only 65% received second-line therapy and these findings are similar to the recently published UK multicentric review on SACT dropout rates (1). This study highlights the importance of using the most effective treatments sooner. Significant OS differences were seen amongst IMDC risk groups.

Table 1: Patient demographics

Gender	No. (%)
Male	92 (70.2%)
Female	39 (29.8%)
Nephrectomy	No. (%)
Yes	71 (54.2%)
NO	60 (45.8%)
Histology	No. (%)
Clear cell type	118 (90.1)
Papillary	7 (5.3%)
Chromophobe	1 (0.8%)
Other (No histology/unclassified)	5 (3.8%)