

# External validation of the novel prognostic Meet-URO score in Metastatic Renal Cell Carcinoma on First Line Immune-combination therapy

## Authors

Aruni Ghose<sup>1</sup>, Alessio Signori<sup>2</sup>, Nicholas Brown<sup>3</sup>, Sophia Haywood<sup>4</sup>, Jose Tapia<sup>5</sup>, Anupama Vijay<sup>6</sup>, Michael Cheung<sup>7</sup>, Ishika Mahajan<sup>8</sup>, Ondrej Fiala<sup>9</sup>, Ritika Abrol<sup>10</sup>, Vishwani Chauhan<sup>1</sup>, Yamin Shwe Yee Soe<sup>11</sup>, Anum Zargham<sup>12</sup>, Sophie Ashley<sup>13</sup>, Michelle Smith<sup>14</sup>, Orla Hardy<sup>15</sup>, Emma Johnston<sup>16</sup>, Abdullah Sarwer<sup>17</sup>, Kyaw Kyaw Tun<sup>18</sup>, Amarnath Challapalli<sup>19</sup>, Roshani Shrestha<sup>20</sup>, Yüksel Ürün<sup>21</sup>, James Meegan<sup>22</sup>, Pasquale Rescigno<sup>23</sup>, Joanne Parkes<sup>24</sup>, Benjamin Smalley<sup>25</sup>, Shobana Anpalakhan<sup>26</sup>, Francesco Buono<sup>27</sup>, Alexandr Poprach<sup>28</sup>, [Jeremy Yuen Chun Teoh](#)<sup>29</sup>, Veronica Murianni<sup>30</sup>, Fabio Catalano<sup>30</sup>, Davide Bimbatti<sup>31</sup>, Sebastino Buti<sup>32</sup>, Giuseppe Fornarini<sup>30</sup>, Giuseppe Banna<sup>25</sup>, Sara Elena Rebutzi<sup>33</sup>

## Affiliations

1. Barts Cancer Centre, Barts Health NHS Trust, London, UK;
2. Department of Health Sciences (DISSAL), Section of Biostatistics, University of Genova, Genova, Italy;
3. Guy's Cancer Centre, Guy's and St Thomas' NHS Foundation Trust, London, UK;
4. Royal Marsden NHS Foundation Trust, London, UK;
5. Velindre Cancer Centre, Velindre University NHS Trust, Cardiff, UK;
6. Leicester Cancer Research Centre, University Hospitals of Leicester NHS Trust, Leicester, UK;
7. Cambridge University Hospitals NHS Foundation Trust, Cambridge, UK;
8. United Lincolnshire Hospitals NHS Trust, Lincoln, UK;
9. Department of Oncology and Radiotherapeutics, Faculty of Medicine, University Hospital in Pilsen, Charles University Prague, Czech Republic;
10. Royal Wolverhampton NHS Trust, Wolverhampton, UK;
11. St Luke's Cancer Centre, Royal Surrey NHS Foundation Trust, UK;
12. University Hospitals Birmingham NHS Foundation Trust, Birmingham, UK;
13. Rosemere Cancer Centre, Lancashire Teaching Hospitals NHS Foundation Trust, Preston, UK;
14. Norfolk and Norwich University Hospitals NHS Foundation Trust, Norwich, UK;
15. St George's University Hospitals NHS Foundation Trust, London, UK;
16. Northern Ireland Cancer Centre, Belfast Health and Social Care Trust, Belfast, UK;
17. Weston Park Cancer Centre, Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, UK;
18. Royal Stoke Cancer Centre, University Hospitals of North Midlands NHS Trust, Stoke-on-Trent, UK;
19. Bristol Haematology and Oncology Centre, University Hospitals Bristol and Weston NHS Foundation Trust, Bristol, UK;
20. Kent Oncology Centre, Maidstone and Tunbridge Wells NHS Trust, Maidstone, UK;
21. Ankara University School of Medicine, Ankara, Turkey;
22. Shrewsbury and Telford Hospital NHS Trust, Shrewsbury, UK;
23. Translational and Clinical Research Institute, Centre for Cancer, Newcastle University, Newcastle Upon Tyne, UK;
24. Worcestershire Oncology Centre, Worcestershire Acute Hospitals NHS Trust, Worcester, UK;
25. Department of Oncology, Portsmouth Hospitals University NHS Trust; Faculty of Science and Health, School of Pharmacy and Biomedical Sciences, University of Portsmouth, Portsmouth, UK;
26. University Hospital Southampton NHS Foundation Trust, Southampton, UK;
27. Leeds Cancer Centre, Leeds teaching Hospitals NHS Trust, Leeds, UK;
28. Department of Comprehensive Cancer Care and Faculty of Medicine, Masaryk Memorial Cancer Institute and Masaryk University, Brno, Czech Republic;
29. Department of Surgery, S.H. Ho Urology Centre, The Chinese University of Hong Kong, Hong Kong;
30. Medical Oncology Unit 1, IRCCS Ospedale Policlinico San Martino, Genova, Italy;
31. Oncology 1 Unit, Veneto Institute of Oncology, IOV - IRCCS, Padua, Italy;
32. Medical Oncology Unit, University Hospital of Parma; Department of Medicine and Surgery, University of Parma, Parma, Italy;
33. Medical Oncology Unit, Ospedale San Paolo, Savona, Italy.

**Objective:**

First-line immune-combination therapy based on immune checkpoint inhibitors (ICIs) and tyrosine kinase inhibitors (TKIs) are the new mainstay in metastatic renal cell cancer (mRCC). In this setting, there is a dearth of standard prognostic/predictive parameters to guide treatment choice. The novel prognostic Meet-URO score (IMDC score + bone metastases and neutrophil-to-lymphocyte ratio - NLR) showed a higher prognostic accuracy than IMDC in 306 patients on first-line nivolumab + ipilimumab in the Italian Expanded Access Program (PMID: 36493602). Hence, the necessity to externally validate and expand to other first-line immune-combination settings.

**Methods:**

Twenty-seven European centres were included. Baseline patient and tumour characteristics were collected, including the IMDC score along with the presence of pre-treatment bone metastases, neutrophils, and lymphocytes for calculating the Meet-URO score. The prognostic performance of Meet-URO and IMDC scores were compared and defined by the Harrell's c-index.

**Results:**

1174 mRCC patient data was retrospectively collected. The median age was 64. 72.8% were male, 54.2% received nephrectomy, 62% were metastatic at diagnosis and 86.7% had clear-cell histology. 35% had bone metastases and 51.6% had  $NLR \geq 3.2$ . 672 (57.2%) patients received ICI-ICI (nivolumab + ipilimumab) whereas 502 (42.8%) an ICI-TKI combination, mainly avelumab + axitinib (27.1%) and pembrolizumab + lenvatinib (14.3%).

Overall, median overall survival (mOS) was 36.2 months (95% CI 31.1 – 38.5) with a median follow up of 15.5 months. The c-index of Meet-URO resulted higher than IMDC score (0.68 vs 0.65). In particular, the mOS resulted more distinctive within the Meet-URO prognostic groups: 45.8 months for group 1 (12.9% of patients), 55.0 for group 2 (25.7%), 38.1 for group 3 (23.5%), 20.9 months for group 4 (29.6%) and 10.4 for group 5 (8.2%). On the other hand, mOS was 45.8 months for IMDC favorable-risk (19.5% of patients), 38.2 for intermediate-risk (53.7%) and 16.2 for poor-risk (26.8%).

**Conclusions:**

In this large-scale real-world external validation analysis on mRCC patients receiving first-line immune-combinations, Meet-URO confirmed higher prognostic accuracy compared to IMDC. A further validation is planned in the ongoing Italian prospective Meet-URO 33 (REGAL) study (PMID: 38914928).

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