**Table S3.** Studies assessing the impact of concomitant medications on the efficacy of ICIs in patients with advanced UC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| First author (year) [Ref.] | *n* | Type of ICIs | Antibiotics | PPIs | Corticosteroids |
| Hopkins (2020) [7] | 896 | Atezolizumab | (+) | n.a. | n.a. |
| Hopkins (2020) [8] | 896 | Atezolizumab | n.a. | (+) | n.a. |
| Ruiz-Bañobre (2021) [9] | 119 | Atezolizumab  Durvalumab  Nivolumab  Pembrolizumab | (-) | (+) | n.a. |
| Ishiyama (2021) [10] | 67 | Pembrolizumab | (+) | n.a. | n.a. |
| Kunimitsu (2022) [11] | 79 | Pembrolizumab | n.a. | (+) | n.a. |
| Tomisaki (2022) [12] | 40 | Pembrolizumab | (-) | (+) | n.a. |
| Okuyama (2021) [13] | 155 | Pembrolizumab | (-) | (+) | n.a. |
| Fukuokaya (2022) [14] | 227 | Pembrolizumab | (-) | (+) | (+) |
| The present study | 242 | Pembrolizumab | (-) | (+) | (+) |

(+), significant negative impact; (-), non-significant impact; n.a., not assessed

ICI, immune checkpoint inhibitor; PPI, proton pump inhibitor; UC, urothelial carcinoma