**Supplementary Table S2. Indications and characteristics of probiotic CBT in NSCLC patients (*N*=39)**

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| --- | --- | --- | --- | --- |
| **Indication for probiotic CBTa** | **Total*****N*=39** | **Before ICI initiation*****N*=9** | **During ICI therapy*****N*=12** | **Before and during ICI therapy*****N*=18** |
| Diarrhea, No. (%) | 14 (35.9%) | 4 (44.4%) | 6 (50.0%) | 4 (22.2%) |
| Constipation, No. (%) | 10 (25.6%) | 1 (11.1%) | 1 (8.3%) | 8 (44.4%) |
| Non-specific abdominal symptoms, No. (%) | 9 (23.1%) | 1 (11.1%) | 2 (16.7%) | 6 (33.3%)**b** |
| Antibiotics-associated dysbiosis**c**, No. (%) | 5 (12.8%) | 3 (33.3%) | 2 (16.7%) | 0 (0.0%) |
| Immune-related enterocolitis, No. (%) | 1 (2.6%) | 0 (0.0%) | 1 (8.3%) | 0 (0.0%) |
| **Median dose (range)** | 60mg/day (60-120) | 60mg/day (60-120) | 90mg/day (60-120) | 120mg/day (60-120) |
| **Median duration of probiotic CBT (range)** | 4 months (3 days-28 months) | 14 days (3 days-3 months) | 6 months (3 days-20 months) | 10 months (15 days-28 months) |

Abbreviation: ICI, immune checkpoint inhibitor; NSCLC, non-small cell lung cancer; probiotic CBT, probiotic *Clostridium butyricum* therapy. **a**Initial indications for probiotic CBT are shown. **b**One patient started probiotic CBT for non-specific abdominal symptoms before ICI and then developed a grade 2 immune-related enterocolitis during ICI therapy. **c**Probiotic CBT was prophylactically initiated for all 5 patients.