**Suppl 1.** Supplement table S1: PFS and OS (months) by patient characteristics

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| --- | --- | --- |
|  | PFS (in months) | OS (in months) |
|  | Median | P (Log-rank) | Median | P (Log-rank) |
| Gender Female (N = 81) Male (N = 79) | 4735 | 0.7852 | 91-- | 0.81  |
| Race African American (N = 38) Caucasian (N = 122) | 2947 | 0.4730 | --68 | 0.79  |
| Diagnosis Lung cancer (N = 106) Melanoma (N = 54) | 29-- | 0.0290 | 9142 | 0.75  |
| Line of treatment  First-line (N = 112) Second-line (N = 48) | 2674 | 0.0002 | --91 | 0.21  |
| Previous Systemic Therapy No (N = 98) Yes (N = 62) | 3341 | 0.9278 | 4291 | 0.50  |
| Combination chemotherapy  No (N = 122) Yes (N = 38) | 4717 | 0.0023 | 91-- | 0.49 |
| irAE No (N = 114) Yes (N = 46) | 4135 | 0.7668 | --35 | 0.18 |
| Age group Younger than 65 years (N = 82) 65 years or older (N = 78) | 3541 | 0.3669 | --68 | 0.93 |
| Stage 2 or 3 (N = 57) 4 (N = 103) | --33 | 0.1518 | --68 | 0.09 |
| Level of burden Low (N = 80) High (N = 80) | --29 | 0.0166 | 9168 | 0.13 |
| WBC level (K/uL) Less than or equal to 10 (N = 121) Higher than 10 (N = 39) | 4726 | 0.0247 | --42 | 0.05 |
| ALC level (K/uL) Less than or equal to 600 (N = 16) Higher than 600 (N = 144) Less than or equal to 1000 (N = 48) Higher than 1000 (N = 112) Less than or equal to 2000 (N = 126) Higher than 2000 (N = 34) | 2641334135-- | 0.61260.41130.6890 | 6891689191-- | 0.91 0.88 0.96  |
| PLT/ALC ratio Less than or equal to 150 (N = 63) Higher than 150 (N = 97) | 3335 | 0.5685 | --91 | 0.99  |
| RE/Non-RE Non-RE (N = 26) RE (N = 19) | 7435 | 0.4051 | 2635 | 0.81  |