|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Years survival** | **GCC** | **ETT** | **PSTT** | **P-value** |
| **Overall survival** |
| 1-year | 0.952[CI:0.933-0.972] | 0.97[CI:0.9415-0.9994] | 0.942[CI:0.898-0.988] | 0.6 |
| 3-year | 0.9331[CI:0.9102-0.9566] | 0.9229[CI:0.8781-0.970] | 0.875[CI:0.8115-0.9443] | 0.4 |
| 5-year | 0.9166[CI:0.8908-0.9433] | 0.8952[CI:0.8426-0.9511] | 0.8759[CI:0.8115-0.9443] | 0.3 |
| **Cancer specific survival** |
| 1-year | 0.965[ CI:0.948-0.982] | 1[CI:1-1] | 0.942[CI:0.898-0.988] | 0.9 |
| 3-year | 0.9477[CI:0.9271-0.9688] | 0.9748[CI:0.9470-1] | 0.909[CI:0.854-0.968] | 0.4 |
| 5-year | 0.9394[CI:0.9169-0.9624] | 0.9455[CI:0.9040-0.9890] | 0.909[CI:0.854-0.968] | 0.4 |

**Table S1:** Survival rates compared for GCC, ETT, PSTT over 1, 3, 5 years.

**Table S2:** Machine learning algorithms performance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Cancer type | ML Algorithm | 10-fold Cross Validation | Accuracy | Mean Bootstrap Estimate [95% CI] | AUC |
| GCC | LR | 0.708 | 0.66 | 0.67 [0.58–0.76] | 0.75 |
|  | KNN | 0.814 | 0.65 | 0.64 [0.54–0.74] | 0.877 |
|  | RFC | 0.816 | 0.77 | 0.79 [0.69–0.89] | 0.877 |
|  | GBC | 0.781 | 0.83 | 0.80 [0.69–0.90] | 0.904 |
|  | MLP | 0.722 | 0.67 | 0.71 [0.60–0.81] | 0.745 |
|  |
| PSTT + ETT | LR | 0.737 | 0.70 | 0.61 [0.46–0.73] | 0.746 |
|  | KNN | 0.670 | 0.70 | 0.60 [0.46–0.74] | 0.805 |
|  | RFC | 0.812 | 0.76 | 0.68 [0.55–0.81] | 0.805 |
|  | GBC | 0.740 | 0.72 | 0.71 [0.58–0.86] | 0.803 |
|  | MLP | 0.720 | 0.76 | 0.63 [0.51–0.76] | 0.822 |

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**FigureS1 -GCC: a)** Kaplan-Meier overall survival (OS) based on chemotherapy; **b)** Kaplan-Meier cancer-specific survival (CSS) based on chemotherapy.

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**Figure S2-PTSS+ETT: a)** Kaplan-Meier overall survival (OS) based on chemotherapy; **b)** Kaplan-Meier cancer-specific survival (CSS) based on chemotherapy.