**Without SMOTE：**

**Lr:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **特征类数** | **Group1** | | | | **Group2** | | | | **Group3** | | | |
| **模型和AUC值** | Model | train | Val | Test | Model | train | Val | Test | Model | train | Val | Test |
| **平扫期** | **1** | **0.800** | **0.794** | **0.793** | 1 | 0.800 | 0.794 | 0.793 | 1 | 0.800 | 0.794 | 0.793 |
| **动脉期** | **1** | **0.806** | **0.798** | **0.818** | 1 | 0.806 | 0.798 | 0.818 | 1 | 0.806 | 0.798 | 0.818 |
| **静脉期** | **1** | **0.805** | **0.796** | **0.797** | 1 | 0.805 | 0.796 | 0.797 | 1 | 0.805 | 0.796 | 0.797 |

**SVM:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **特征类数** | **Group1** | | | | **Group2** | | | | **Group3** | | | |
| **模型和AUC值** | Model | train | Val | Test | Model | train | Val | Test | Model | train | Val | Test |
| **平扫期** | **1** | **0.799** | **0.786** | **0.804** | 1 | 0.799 | 0.786 | 0.804 | 1 | 0.799 | 0.786 | 0.804 |
| **动脉期** | **1** | **0.806** | **0.790** | **0.819** | 1 | 0.806 | 0.790 | 0.819 | 1 | 0.806 | 0.790 | 0.819 |
| **静脉期** | **1** | **0.801** | **0.789** | **0.803** | 1 | 0.801 | 0.789 | 0.803 | 1 | 0.801 | 0.789 | 0.803 |

**With SMOTE:**

**Lr:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **特征类数** | **Group1** | | | | **Group2** | | | | **Group3** | | | |
| **模型和AUC值** | Model | train | Val | Test | Model | train | Val | Test | Model | train | Val | Test |
| **平扫期** | **Lr12** | **0.894** | **0.863** | **0.828** | Lr8 | 0.874 | 0.843 | 0.749 | Lr5 | 0.882 | 0.853 | 0.753 |
| **动脉期** | Lr1 | 0.815 | 0.802 | 0.824 | Lr1 | 0.815 | 0.802 | 0.824 | **Lr6** | **0.888** | **0.861** | **0.810** |
| **静脉期** | **Lr1** | **0.820** | **0.816** | **0.791** | Lr1 | 0.820 | 0.816 | 0.791 | Lr1 | 0.821 | 0.816 | 0.791 |

**SVM:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **特征类数** | **Group1** | | | | **Group2** | | | | **Group3** | | | |
| **模型和AUC值** | Model | train | Val | Test | Model | train | Val | Test | Model | train | Val | Test |
| **平扫期** | **12** | **0.891** | **0.856** | **0.805** | 11 | 0.885 | 0.852 | 0.841 | 20 | 0.929 | 0.856 | 0.751 |
| **动脉期** | 2 | 0.825 | 0.811 | 0.828 | 2 | 0.825 | 0.811 | 0.828 | **6** | **0.876** | **0.857** | **0.812** |
| **静脉期** | **1** | **0.820** | **0.812** | **0.791** | 1 | 0.820 | 0.812 | 0.791 | 1 | 0.820 | 0.813 | 0.791 |

**Lr without SMOTE**

|  |  |  |
| --- | --- | --- |
| **NCP+Group1** | **NCP+Group2** | **NCP+Group3** |
|  |  |  |
| **CMP+Group1** | **CMP+Group2** | **CMP+Group3** |
|  |  |  |
| **NP+Group1** | **NP+Group2** | **NP+Group3** |
|  |  |  |

**Lr with SMOTE**

|  |  |  |
| --- | --- | --- |
| **NCP+Group1** | **NCP+Group2** | **NCP+Group3** |
|  |  |  |
| **CMP+Group1** | **CMP+Group2** | **CMP+Group3** |
|  |  |  |
| **NP+Group1** | **NP+Group2** | **NP+Group3** |
|  |  |  |