S5 Table. Apparent hit rate and estimated true hit rate in the estimation of surgical workload in HALDNx as calculated by different statistical methods

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | NQDR | NLDR | 3-NNR | 5-NNR | FF | RBF | Logistic | Liner | average |
| Apparent hit rate | 92.2% | 97.4% | 92.1% | 88.9% | 99.4% | 95.3% | 92.4% | 86.6% | 93.0±4.2 |
| Cross Validation | 86.1% | 94.8% | 87.6% | 88.8% | 89.6% | 91.9% | 88.9% | 86.6% | 89.3±2.9 |
| simple Bootstrap | 83.8% | 94.4% | 84.6% | 79.6% | 96.0% | 92.5% | 90.4% | 84.8% | 88.3±5.9 |
| Jack Knife Estimate | 86.3% | 94.9% | 87.7% | 88.8% | 87.6% | 91.5% | 89.4% | 84.0% | 88.8±3.3 |
| Randomized Bootstrap | 89.9% | 96.9% | 88.2% | 86.3% | 95.7% | 91.5% | 89.8% | 85.1% | 90.4±4.2 |
| .632 Estimator | 88.6% | 95.6% | 89.4% | 88.1% | 92.6% | 88.2% | 90.9% | 88.2% | 90.2±2.7 |
| Average hit rate | 86.9±2.4 | 95.3±1.0 | 87.5±1.8 | 86.3±3.9 | 92.3±3.8 | 91.1±1.8 | 89.9±0.8 | 85.7±1.7 |  |

Results in this table were calculated using a cohort different from the one in this article. Apparent hit rate is the discrimination rate of easy cases in HALDNx for the training data using different discriminators constructed with the training data itself. Other hit rates than this were estimated for future data by several estimation methods. The details of this kind of comparison of discriminators and estimators are found in Reference 30 (Efron B, J Am Stat Assoc. 1983;78: 316-331). Averages are shown as the mean ± standard deviation.

HALDNx: hand-assisted laparoscopic donor nephrectomy; NQDR: normal-based quadratic discriminant rule; NLDR: normal-based linear discriminant rule; 3-NNR: 3-nearest neighborhood rule; 5-NNR: 5-nearest neighborhood rule; FF: feedforward neural network; RBF: radial basis function neural network; Logistic: logistic regression; Linear: linear regression; Cross Validation: cross-validation method; Simple Bootstrap: simple randomized bootstrap method; Jack Knife: Jack Knife estimate of bias; .632 Estimator: .632(ε - err).