**Table 1.** AVF function classification

|  |
| --- |
|  AVF function classification |
| Year<1 |
| Year≥1 |

**Table 2.** Serum ferritin classification

|  |
| --- |
| Ferritin classification |
| Ferritin ≤200 |
| 200< Ferritin <500 |
| Ferritin ≥500 |

**Table 3.** Hemoglobin classification

|  |
| --- |
| Hemoglobin classification |
| HB<=8 |
| HB>8 |

**Table 4.** Classified ratio of serum iron on TIBC

|  |
| --- |
| SI/TIBC classification |
| SI/TIBC <30% |
| SI/TIBC ≥30% |

**Table 5.** Extracted rules correspond to DT1

|  |  |  |  |
| --- | --- | --- | --- |
| AVF Survival | AVF function<1 / ≥1 | Extracted Rules | SI/TIBC |
|  |  | If SI/TIBC ≥0/3 and Ferritin≤200 and HB>8 = then (1/3)  |  |
| 57% | 68 | If SI/TIBC ≥ 0.3 and 200< Ferritin <500 and HB≤8 = then (1/3)  | Greater than or equal to 30% |
|  |  | If SI/TIBC ≥ 0.3 and Ferritin≥500 = then (4/2)  |  |
|  |  | If SI/TIBC<0.3 and Ferritin≤200 = then (10/26)  |  |
| 66% | 5226 | If SI/TIBC<0.3 and 200< Ferritin <500 and HB>8 = then (12/15)  | less than 30% |
|  |  | If SI/TIBC<0.3 and 200< Ferritin <500 and HB≤8 = then (1/1)  |  |
|  |  | If SI/TIBC<0.3 and Ferritin≥500 = then (3/10)  |  |

**Table 6.** Confusion matrix of DT1; accuracy rate:66.07%

 

**Table 7.** Extracted rules correspond to DT2

|  |  |  |  |
| --- | --- | --- | --- |
| AVF Survival | AVF function<1 / ≥1 | Extracted Rules | FerritinClassification |
| 70%  | 3113 | If Ferritin≤200 = then (13/31)  | Ferritin≤200 |
|  |  | If 200< Ferritin <500 and HB>8 = then (17/18)  | 200< Ferritin <500 |
| 46% | 26 | If 200< Ferritin <500 and HB≤8 = then (9/5)  |  |
| 63% | 712 | If Ferritin≥500 = then (7/12)  | Ferritin≥500 |

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**Table 8.** Confusion matrix of DT2; accuracy rate: 62.50%



**Table 9.** Extracted rules correspond to DT3

|  |  |  |  |
| --- | --- | --- | --- |
| AVF Survival | AVF function<1 / ≥1 | Extracted Rules | SI/TIBC |
|  |  | If SI/TIBC ≥ 0.3 and Ferritin>200 = then (15/9)  |  |
| 56% | 1814 | If SI/TIBC ≥ 0.3 and Ferritin≤200 and HB>8 = then (1/3)  | Greater than or equal to 30% |
|  |  | If SI/TIBC ≥ 0.3 and Ferritin≤200 and HB<8 = then (2/2)  |  |
| 65% | 5228 | If SI/TIBC < 0.3 = then (28/52) | less than 30% |

**Table 10.** Confusion matrix of DT3; accuracy rate: 64.29%



**Table 11.** Extracted rules correspond to DT4

|  |  |  |  |
| --- | --- | --- | --- |
| AVF Survival | AVF function<1 / ≥1 | Extracted Rules | SI/TIBC |
| 33% | 918 | If SI/TIBC ≥ 0.3 and Ferritin≤200 = then (3/5)  | Greater than or equal to 30% |
|  |  | If SI/TIBC ≥ 0.3 and Ferritin>200 = then (15/4)  |  |
| 65% | 5228 | If SI/TIBC < 0.3 = then (28/52)  | less than 30% |

**Table 12.** Confusion matrix of DT4; accuracy rate: 64.29%

