Supplementary Materials

**Table S1.** The number of normal and osteoporosis patients distributed in women

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age range** | **0 ~ 39** | **40 ~ 49** | **50 ~ 59** | **60 ~ 69** | **70 ~ 79** | **Over 80** |
| Normal | 7 | 84 | 391 | 135 | 27 | 1 |
| Osteoporosis | 0 | 11 | 222 | 588 | 697 | 232 |

**Table S2.** Summary of the Model C’s Performances on the test set (*n* =287).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** | **Accuracy** | **Precision** | **Recall** | **AUC** |
| Random Forest | 0.832 | 0.833 | 0.893 | 0.919 |
| AdaBoost | 0.849 | 0.849 | 0.905 | 0.921 |
| Gradient Boosting | 0.829 | 0.844 | 0.869 | 0.908 |

\* Top performing model is underlined. AUC: Area Under the Curve. GBM: Gradient Boosting Machine