**Oral pH value predicts the incidence of radiotherapy related caries in nasopharyngeal carcinoma patients**

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**Supplementary files**

**Supplementary figure legend**

**Supplement Figure 1 Event-free survival of patients with oral pH patterns 1 and 2.** Pattern 1: oral pH value always >5.3 or from <5.3 to >5.3; Pattern 2: oral pH value always <=5.3 or from >5.3 to <= 5.3. p<0.05.From this figure, we can observe the patients in pattern 1 had much low possibility to obtain a RRCs.

**Supplement Figure 2 ROC Plot of PH Value at Month 9 (All Patients).** By excluding the visits from Month 12 to Month 24, the best model of Logistic regression is with PH month 9 as factor, and the corresponding AUC is 0.8708, the greatest among Visit month 3~9.

Supplement Table 1. Performances of the Logistic Regression Mode with pH value with specific timepoint

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Paramter | AUC | Optimal Cutoff | Youden  Index | Sensitivity | Specificity | Positive Predicted | Negative Predicted Value | False  Positive  Value | False  Negative  Value |
| 3 months | 0.736(0.643,0.829) | 5.00 | 0.350 | 0.750 | 0.600 | 0.323 | 0.904 | 0.677 | 0.096 |
| 6 months | 0.7696(0.704,0.890) | 5.30 | 0.474 | 0.738 | 0.743 | 0.404 | 0.921 | 0.596 | 0.080 |
| 9 months | 0.871(0.807,0.935) | 5.30 | 0.645 | 0.818 | 0.827 | 0.514 | 0.529 | 0.486 | 0.047 |
| 12 months | 0.832(0.716,0.948) | 5.30 | 0.615 | 0.833 | 0.781 | 0.588 | 0.926 | 0.412 | 0.074 |
| 15 months | 0.896(0.744,1.000) | 5.20 | 0.683 | 0.750 | 0.933 | 0.600 | 0.966 | 0.400 | 0.035 |
| 18 months | 0.982(0.941,1.000) | 5.40 | 0.927 | 1.000 | 0.927 | 0.571 | 1.000 | 0.429 | 0.000 |
| 21 months | 1.000(1.000,1.000) | 5.30 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 |
| 24 months | 0.927(0.810,1.000) | 5.50 | 1.000 | 1.000 | 0.683 | 0.188 | 1.000 | 0.813 | 0.000 |