**Supplementary 2.** ROC curves overtime to visualize the predictability of the model overtime for mortality prediction.

**A: Model: Age+MELD**

Chart, line chart

Description automatically generated

AUC by time

12 months: 0.871

24 months: 0.884

36 months: 0.861

48 months: 0.844

60 months: 0.858

72 months: 0.781

**B: Model: Age+MELD+IR**

Chart, line chart

Description automatically generated

AUC by time

12 months: 0.874

24 months: 0.883

36 months: 0.862

48 months: 0.838

60 months: 0.850

72 months: 0.784

**C: Model: Age+DF**

Line chart

Description automatically generated

AUC by time

12 months: 0.777

24 months: 0.783

36 months: 0.757

48 months: 0.776

60 months: 0.838

72 months: 0.790

**D: Model: Age+DF+IR**

Line chart

Description automatically generated

AUC by time

12 months: 0.783

24 months: 0.788

36 months: 0.757

48 months: 0.780

60 months: 0.847

72 months: 0.803

**E: Model: Age+MELD+Albumin**

Chart, line chart

Description automatically generated

AUC by time

12 months: 0.880

24 months: 0.889

36 months: 0.866

48 months: 0.854

60 months: 0.872

72 months: 0.827