1) Method1: Time series to Supervised Learning

Table1. Zephyr and Omega's missing values were deleted. (previous cross-validation)

Features	Classification Method	Accuracy	Fmeasure
Zephyr	Bagging	88.38	0.91
	AdaboostM1	89.21	0.91
Omega	Bagging	96.05	0.97
	AdaboostM1	78.80	0.86
Concatenated(with NAN)	Bagging	72.34	0.82
	AdaboostM1	81.04	0.86

Table2. Zephyr and Omega's missing values were deleted. (new cross-validation)

Features	Classification Method	Accuracy	Fmeasure
Zephyr	Bagging	80.77	0.86
	SVM	66.69	0.78
	AdaboostM1	**86.20**	**0.90**
	C4.5	77.37	--
	RandomForest	80.79	--
Omega	Bagging	64.31	0.76
	SVM	74.03	0.84
	AdaboostM1	68.29	0.80
	C4.5	62.05	--
	RandomForest	64.55	--
Concatenated(with NAN)	Bagging	65.35	0.78
	SVM	66.74	0.79
	AdaboostM1	76.01	0.82
	C4.5	62.39	--
	RandomForest	73.07	--

Table3. filling missing values using Linear Interpolation. (new cross-validation)

Features	Classification Method	Accuracy	Fmeasure
Zephyr	Bagging	76.70	0.83
	SVM	76.77	0.83
	AdaboostM1	79.17	0.84
	C4.5	70.60	--
	RandomForest	76.42	--
Omega	Bagging	61.70	0.71
	SVM	73.46	0.81
	AdaboostM1	67.72	0.75
	C4.5	60.52	--
	RandomForest	60.20	--
Concatenated	Bagging	74.52	0.81
	SVM	**79.29**	**0.85**
	AdaboostM1	78.23	0.84
	C4.5	67.33	--
	RandomForest	77.59	--

Table4. filling missing values using Median Window. (new cross-validation)

Features	Classification Method	Accuracy	Fmeasure
Zephyr	Bagging	76.95	0.82
	SVM	76.53	0.83
	AdaboostM1	78.20	0.83
	C4.5	73.41	--
	RandomForest	76.13	--
Omega	Bagging	61.42	0.71
	SVM	73.30	0.81
	AdaboostM1	67.18	0.75
	C4.5	58.67	--
	RandomForest	60.92	--
Concatenated	Bagging	74.84	0.82
	SVM	**78.76**	**0.85**
	AdaboostM1	75.07	0.82
	C4.5	68.85	--
	RandomForest	78.11	--

2) Method2: Time series (KNN (k=10) – DTW distance)

Table5. missing values are existing.

Features	Sequence type	Accuracy	Fmeasure
All Features(with NAN)	Patient is sequence	65.82	0.73
	Feature is sequence	62.61	0.77