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| Author | Country | Single- or Multiple-center | Sample Size | Patients | Control/Conventional | Intervention/Machine learning | Main result | Attitude |
| Takahama 2023 | Japan | Single-center | 197 | HF patients | Seattle heart failure model; MAGGIC score | A gradient boosting machine | The AUROC of the intervention group was 0.85 vs. the control group 0.68 | Positive |
| Verma 2023 | Canada | Single-center | 960 | Inpatients | Physicians; NEWS | Neural network | The AUROC of the intervention group was 0.85 vs. the control group 0.64 and 0.60 | Positive |
| Arnold 2019 | America | Single-center | 1874 | Inpatients | Physicians | Rothman Index | The AUROC of the intervention group was 0.73 vs. the control group 0.70 | Neutral |
| Ye 2019 | America | Single-center | 11762 | Inpatients | None | Random forest; LASSO; Boost; XGBoost; SVM; KNN | The AUROCs of different models are 0.884, 0.867, 0.793, 0.762, 0.724, and 0.511 | Positive |
| Cho 2020 | Korea | Single-center | 8039 | Inpatients | MEWS | RNN | The AUROC of the intervention group was 0.865 vs. the control group 0.682 | Positive |
| Bassin 2023 | Australia | Single-center | 28639 | Inpatients | Between The Flags (BTF) alerting system | BTF+ Deterioration Index (DI) with logistic regression | Reduction in mortality (RR: 0.854, 95%CI 0.673-1.084), unplanned ICU transfer (RR: 0.775, 95%CI 0.595-1.008), and LOS (Control vs. Intervention: 6.39 vs. 6.06) | Positive |
| Burns 2022 | Canada | Single-center | 273 | Inpatients | No such software | Software program based on a intelligence algorithm | Reduction of unplanned ICU transfer (RR: 0.8554, 95%CI 0.8496-0.861) | Positive |
| Winslow 2022 | America | Multiple-center | 6681 | Inpatients | Ignore eCART | eCART | Reduction of mortality (RR: 0.63, 95%CI 0.53-0.73) and LOS | Positive |
| Escobar 2020 | America | Multiple-center | 43949 | non-ICU patients | No AAM | AAM | Reduction of mortality (RR: 0.84, 95%CI 0.78-0.90) | Positive |
| Evans 2016 | America | Single-center | 175 | Inpatients | No NLP | natural language processing (NLP) | Reduction of mortality (RR: 0.38, 95%CI 0.16-0.88) and LOS(Control vs. Intervention: 5 vs. 4.5) | Positive |
| Bailey 2013 | America | Single-center | 20031 | Inpatients | No such algorithm | an AI-based predictive algorithm | Reduction of unplanned ICU transfer (RR: 1.06, 95%CI: 0.93-1.21), Mortality (RR: 1.00, 95%CI 0.84-1.20), and LOS(Control vs. Intervention: 7.01vs. 2.94) | Neutral |