Track patient recovery in real-time by processing streaming data

BIOMEDICAL DATA DESIGN
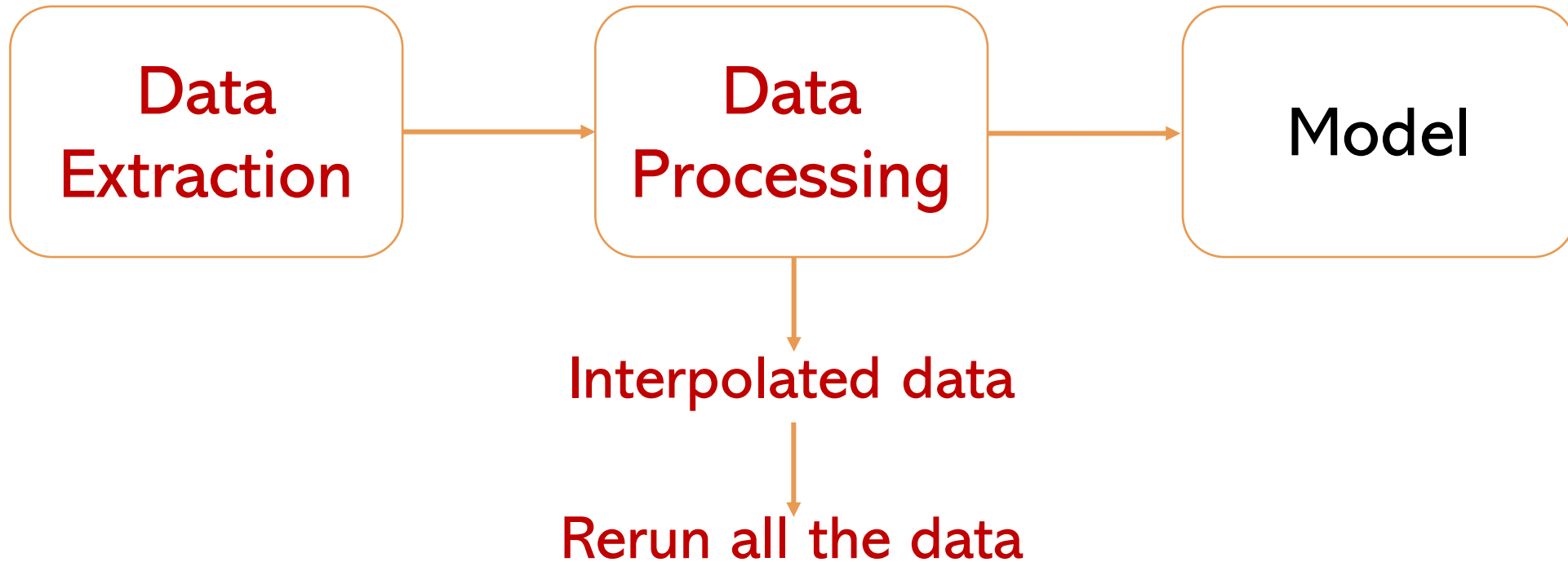
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01
Data processing

Data processing

Data
Extraction → Data
Processing → Model

↓

Interpolated data

↓

Rerun all the data

Data processing
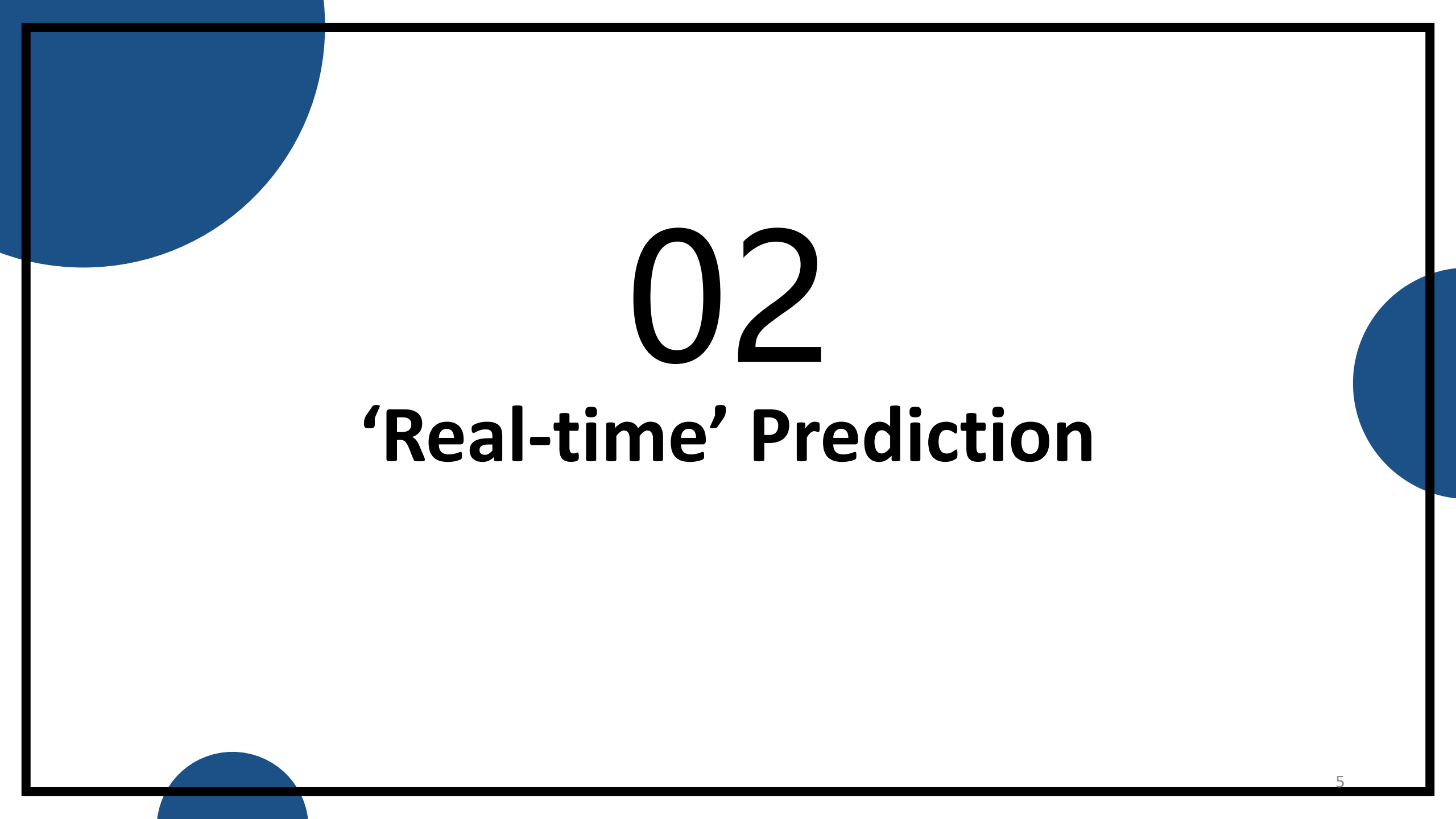
Sodium

Patient id	Time	Value
141462	81	134.3333
141462	82	134.3333
141462	83	134.3333
141462	84	134.3333
141462	85	134.3333
141462	86	134.3333
141515	0	133.1451
141515	1	132
141515	2	133.4262
141515	3	133.5694
141515	4	133.7144
141515	5	133.8609
141515	6	134.0091
141515	7	134.1588

Temperature

Patient id	Time	Value
141462	81	36.81024
141462	82	36.81592
141462	83	36.5
141462	84	36.85252
141462	85	36.87865
141462	86	36.90541
141515	0	36.90043
141515	1	36.95896
141515	2	36.58462
141515	3	38.775
141515	4	38.3625
141515	5	38
141515	6	37.68571
141515	7	37.5

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02

Results of Logistic Regression

Data processing

```
┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│     Data     │─────▶│     Data     │─────▶│    Model     │
│  Extraction  │      │  Processing  │      │              │
└──────────────┘      └──────────────┘      └──────────────┘
                                                    │
                                                    ▼
                                            ┌──────────────┐
                                            │   Logistic   │
                                            │  Regression  │
                                            └──────────────┘
                                                    │
                                                    ▼
                                             First day data
```
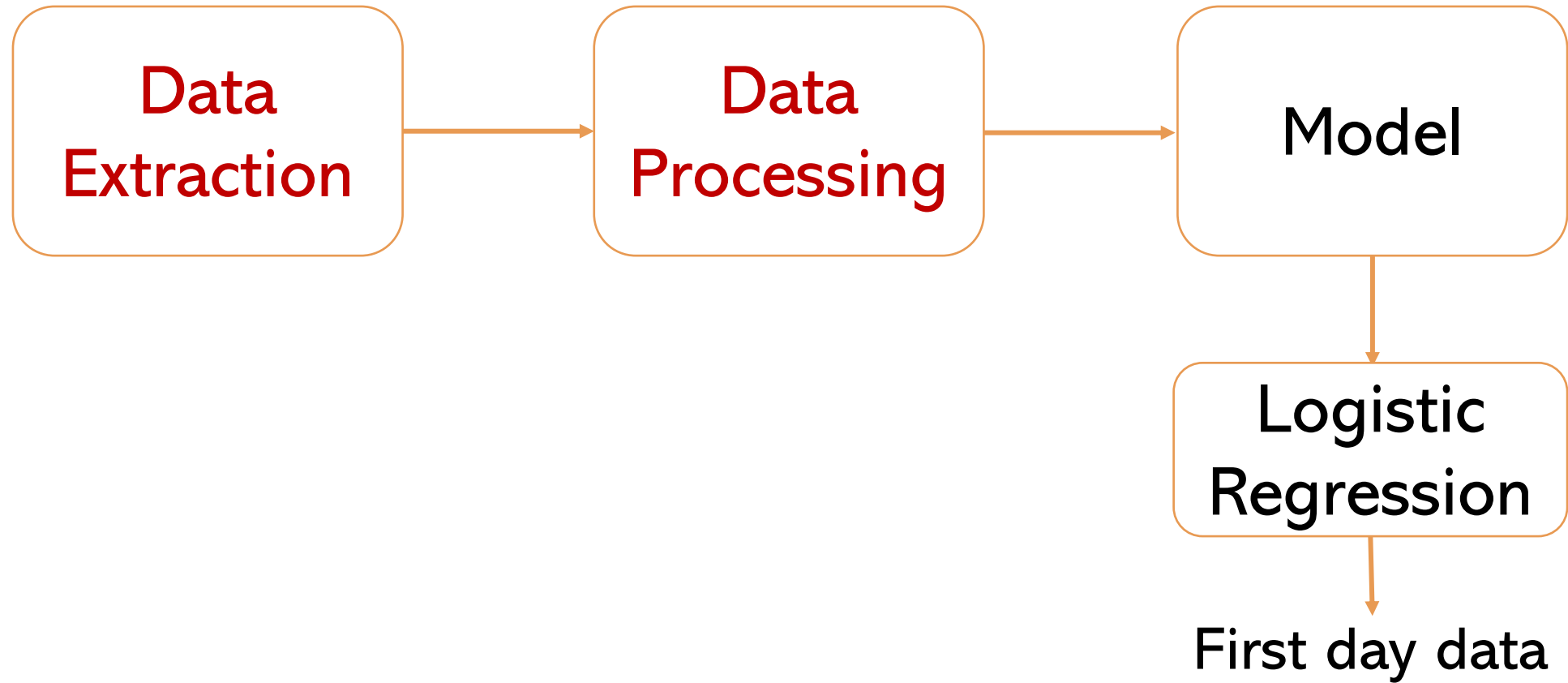
Result
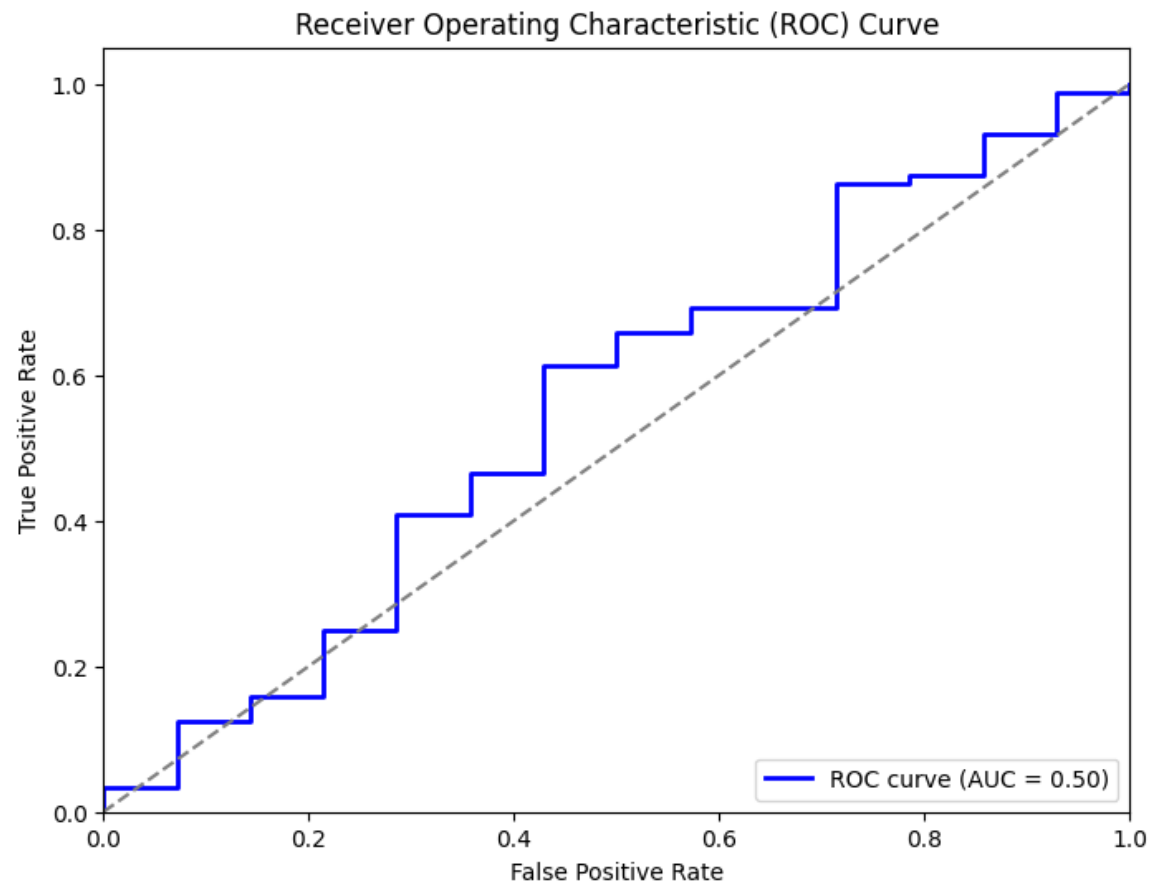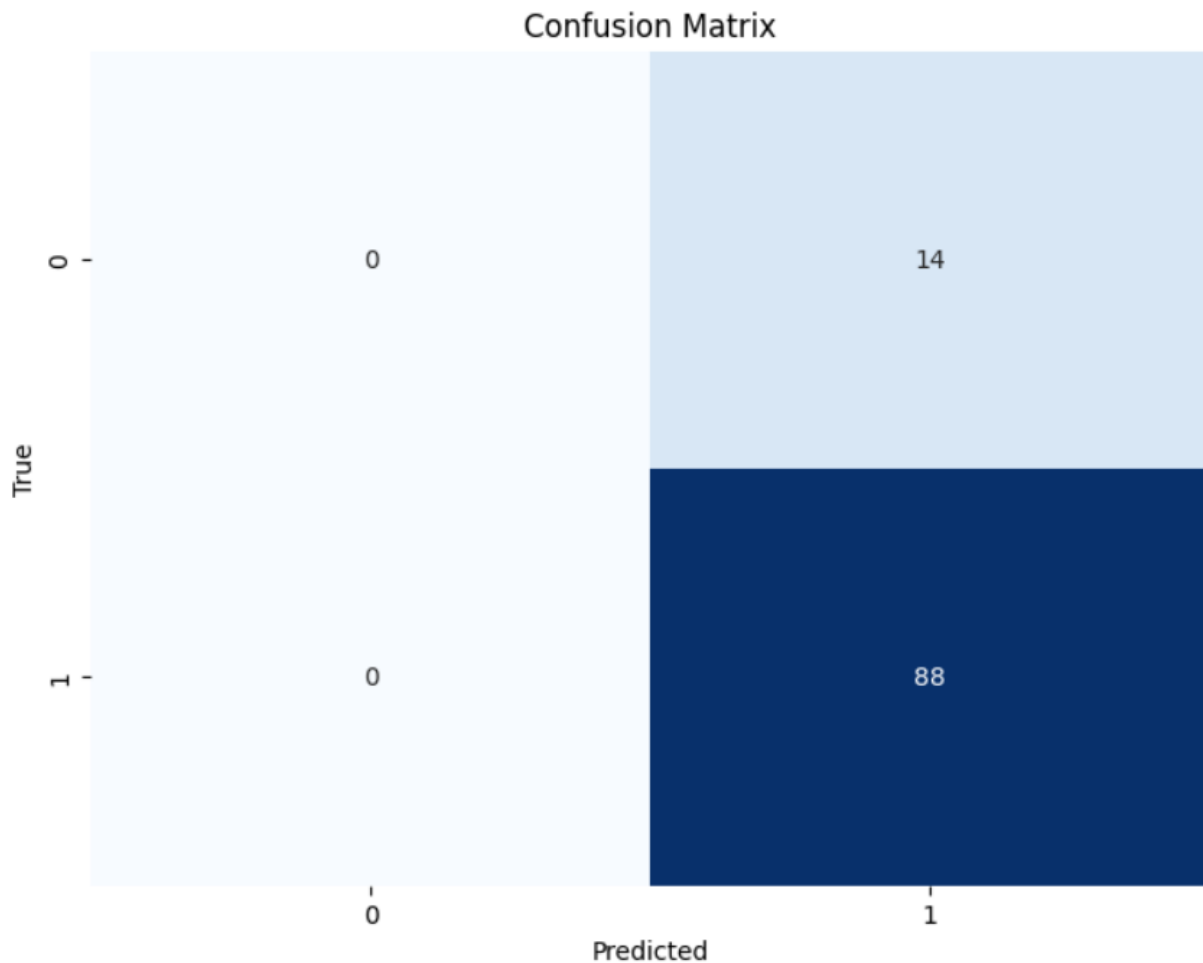
The numbers of dead and alive patients are not equal

Thank you

Result

Precision-Recall Curve