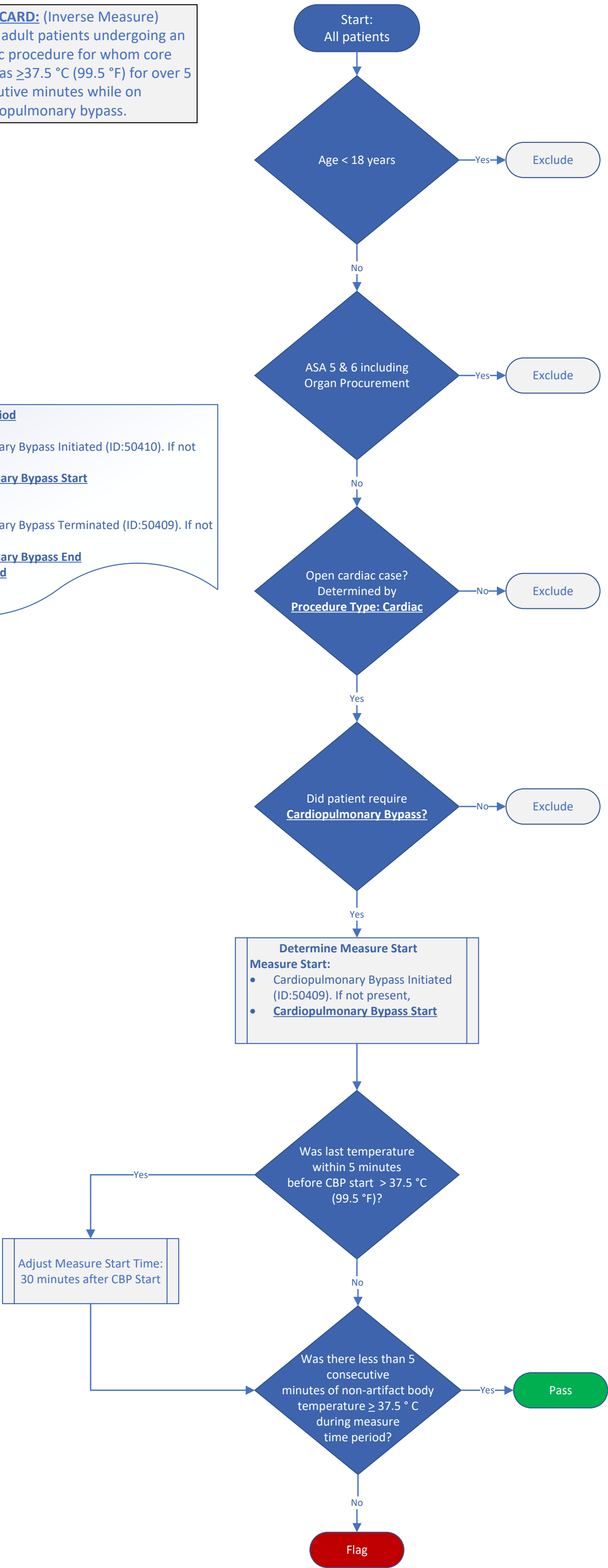**TEMP-07-CARD:** (Inverse Measure) Percentage of adult patients undergoing an open cardiac procedure for whom core temperature was ≥37.5 °C (99.5 °F) for over 5 consecutive minutes while on cardiopulmonary bypass.

Start:
All patients

Age < 18 years — Yes → Exclude

No

ASA 5 & 6 including Organ Procurement — Yes → Exclude

No

Measure Time Period
Measure Start:
- Cardiopulmonary Bypass Initiated (ID:50410). If not present,
- **Cardiopulmonary Bypass Start**

Measure End:
- Cardiopulmonary Bypass Terminated (ID:50409). If not present,
- **Cardiopulmonary Bypass End**
- **Anesthesia End**

Open cardiac case? Determined by **Procedure Type: Cardiac** — No → Exclude

Yes

Did patient require **Cardiopulmonary Bypass?** — No → Exclude

Yes

Determine Measure Start
Measure Start:
- Cardiopulmonary Bypass Initiated (ID:50409). If not present,
- **Cardiopulmonary Bypass Start**

Was last temperature within 5 minutes before CBP start > 37.5 °C (99.5 °F)? — Yes →

Adjust Measure Start Time: 30 minutes after CBP Start

No

Was there less than 5 consecutive minutes of non-artifact body temperature ≥ 37.5 ° C during measure time period? — Yes → Pass

No

Flag

All core temperature measurements will be prioritized over near-core measurements with hierarchy applied in the following order:

- Arterial Bypass Cannula Temperature (Concept ID: 3263)
- Nasopharyngeal (Concept ID: 3059)
- Esophageal (Concept ID: 3055)
- Blood (Concept ID: 3056) or keyword 'PA catheter'
- Bladder (Concept ID: 3058)
- Rectal (Concept ID: 3061)
- Zero-flux thermometer (non-core) – via keyword search of temperature routes
- Other non-core routes (axillary, oral, skin, temporal, tympanic, unspecified)

Artifact Algorithm

- Less than 32.0 C (89.9F)
- Greater than 40.0 C (104.0 F)
- Any minute-to minute jumps > 1C/1min
  - Example: 0.25C/15s, 0.5C/30s, 1C/1min