



# Return of Spontaneous Circulation (ROSC)

## Care Bundle

### ROSC Management

Metric	Goal
Elevate Head of Bed	Head of bed at 30 degrees
Avoid Hyperventilation	Ventilation rate $\leq 12/\text{min}$ and $\text{EtCO}_2$ of 35-45 mmHg
MAP $> 65$ mmHg	Maintain MAP $> 65$ mmHg with push-dose or continuous infusion pressors as necessary
12-Lead EKG	Obtained around 8 minutes post-ROSC
Hospital Prenotification	Performed as soon as practicable

### Theory/Evidence

#### Elevate Head of Bed

- In the absence of the need for spinal motion restriction or inherent limitations due to automated compression device placement, a post-ROSC patient should have the head of the bed elevated to 30 degrees regardless of whether they are intubated or not. This position will prevent the risk of aspiration, and support optimal cerebral blood flow.

#### Avoid Hyperventilation

- Avoiding hyperventilation by providing a ventilation rate of  $\leq 12/\text{min}$  and targeting  $\text{EtCO}_2$  to 35-45 mmHg is essential to reduce cerebral vasoconstriction in the post-ROSC patient.

#### MAP $> 65$ mmHg

- In the post-ROSC patient, maintenance of MAP  $> 65$  is essential for both coronary artery and cerebral perfusion. Push dose epinephrine or continuous infusion (norepinephrine or epinephrine) should be used to maintain MAP  $> 65$  mmHg.

#### 12-Lead EKG

- Obtaining a 12-lead EKG is essential in identifying a potential etiology for the arrest (eg STEMI). Immediately obtaining a 12 lead after ROSC is associated with a high false-positive STEMI rate, so 12 lead EKGs should be obtained around 8 minutes post-ROSC to minimize false positives while still obtaining a timely EKG.

#### Hospital Prenotification

- Timely prehospital notification aids in facility preparation for the post-ROSC patient.