ii) Coronary angiography in patients with OHCA without a STEMI. The efficacy and safety of immediate vs delayed coronary angiography in comatose survivors of OHCA without ST-segment elevation has been examined in 6 multicentre RCTs (Supplemental Table S1).[13-18] In the **Co**ronary **A**ngiography After **C**ardiac Arres**t** (COACT) trial 552 patients with OHCA without ST-segment elevation and a shockable rhythm were randomized to immediate vs delayed coronary angiography (median time from arrest to coronary angiography was 2 and 122 hours, respectively).[13] There was no significant difference in survival at 90 days for immediate vs delayed angiography (64.5% and 67.2%). In the Immediate Unselected Coronary Angiography Versus Delayed Triage in Survivors of Out-of-hospital Cardiac Arrest Without ST-segment Elevation (TOMAHAWK) trial 554 patients with OHCA from a suspected coronary origin with either shockable or nonshockable rhythm were randomized to immediate vs delayed coronary angiography (median time from arrest to coronary angiography was 3 and 47 hours).[14] Overall survival at 30 days did not differ significantly for the 2 strategies (46.0% with immediate and 54.0% with delayed angiography; $P = 0.06$). A meta-analysis of the 6 RCTs performed to date showed no significant difference in survival with a good neurological outcome, duration of mechanical ventilation, or intensive care length of stay with early (with trial definitions ranging from immediately after to within 2 hours of randomization) vs delayed coronary angiography.[19] Several factors might account for the lack of benefit of early angiography in OHCA survivors without ST-segment elevation. These include the heterogenous population in the included studies, the relatively low incidence of acute unstable culprit coronary lesions found in this cohort (13.6%-46.9% of coronary angiograms),[19] and the competing risk of death from severe neurological dysfunction, which might not be modulated by early coronary angiography.

Although routine early coronary angiography is not beneficial in comatose survivors of OHCA without STEMI, patient subgroups at high risk of adverse events warrant consideration for immediate angiography.

These include patients with cardiogenic shock, high-risk ischemic ECG changes, or recurrent unstable ventricular arrhythmias believed to be related to ongoing ischemia.

Expert Opinion: In patients who are comatose after a resuscitated OHCA without ST-segment elevation on the initial ECG, delaying coronary angiography may be considered unless high-risk cardiovascular features are present such as hemodynamic instability, high-risk ischemic ECG changes, or recurrent, or unstable ventricular arrhythmias believed to be related to ongoing ischemia.

Temperature control

For the purposes of this CPU, temperature control is defined as active regulation of temperature after cardiac arrest. Animal models and early RCTs have suggested that lowering core body temperature after return of spontaneous circulation (ROSC) after cardiac arrest might improve neurological outcomes and survival. The 2017 CCS position statement suggested that "targeted temperature management" be considered for all unresponsive post-ROSC patients with a recommended target temperature of 33°C-36°C for at least 24 hours.[11] Several RCTs, summarized in Table 2, have subsequently evaluated different temperature control targets, durations, and populations, providing additional evidence to guide clinical practice. The degree of neurological impairment required to initiate temperature control is not universally defined and inclusion criteria used in RCTs vary. The **T**argeted **T**emperature **M**anagement **2** (TTM2) trial defined "unconscious" as the inability to obey verbal commands.[20] The 2017 CCS position

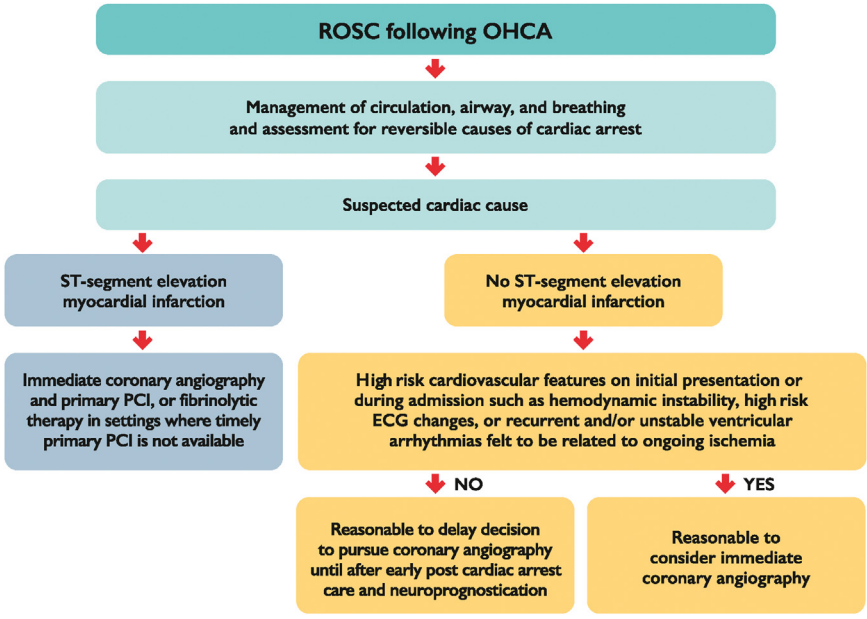

Figure 1. Timing of coronary angiography during post cardiac arrest care. ECG, electrocardiogram; OHCA, out-of-hospital cardiac arrest; PCI, percutaneous coronary intervention; ROSC, return of spontaneous circulation.