

# Opioid-related cardiac arrest patients differ from other cardiac arrests

November 11 2019

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One recent study found that opioid overdose victims who suffer cardiac arrest are distinctly different from other cardiac arrest patients, yet they may be more likely than others to survive long enough to be admitted to

a hospital, according to preliminary research to be presented at the American Heart Association's Resuscitation Science Symposium 2019—November 16-17 in Philadelphia.

"Cardiac arrests due to [opioid](#) overdose are increasingly common and make up a separate population that should be researched and cared for as a separate group in order to improve overall outcomes," said lead study author Teresa May, D.O., an investigator at the Maine Medical Research Center, in Portland.

May and colleagues identified all emergency 9-1-1 responses in Maine for non-traumatic, out-of-hospital cardiac arrests, particularly noting opioid-overdose cases or cases when the overdose rescue medication naloxone was administered. There were 3,131 EMS responses in Maine in 2016-2017 for out-of-hospital cardiac arrests, of which 168 were attributed to opioid overdose. Compared to other cardiac [arrest](#) victims, drug overdose-associated cardiac arrest victims were:

- Younger (35 versus 62 years of age);
- Less likely to have other chronic medical conditions;
- Had cardiac arrests in a public area or witnessed by others;
- Were more likely to receive bystander cardiopulmonary resuscitation (27% versus 16%); and
- Were more likely to report using illicit drugs (19% versus 2%).

The investigators also studied whether living in urban or rural locations made any difference and found that opioid-related incidents were three times more likely in metropolitan or large rural areas versus smaller, more remote locations.

After adjusting the findings for age, gender, initial shockable heart rhythm, whether the cardiac arrest was witnessed, if bystander CPR was administered and rural location, the odds of overdose patients surviving

to the [emergency department](#) were 80% higher than for those suffering a non-opioid-related cardiac arrest.

"Given what we found, it might be appropriate to consider thinking about these cardiac arrest cases differently and to raise awareness among first responders and emergency room providers that opioid-related cardiac arrests are in fact different from other cardiac arrest cases," said May. "I believe patients who suffer a cardiac arrest due to [opioid overdose](#) should be recognized and studied as an entirely different type of cardiac patient. They may require different pre-hospital and in-hospital treatment than other patients with cardiac arrest."

In December 2018, the American Heart Association introduced a new online instructional course series titled "Opioid Education for Health Care Providers" and "Opioid Education for Non-Clinical Staff and Lay Responders" to train paramedics, nurses, physicians, other emergency healthcare professionals and bystanders in how to best respond to cardiac emergencies in opioid overdoses.

"Appropriate, science-based emergency care is critical for patients with cardiac arrest. This study indicates that opioid-related [cardiac arrest](#) has unique characteristics that should be considered in order to improve patient outcomes," said Eduardo Sanchez, M.D., M.P.H., FAAFP, American Heart Association Chief Medical Officer for Prevention.

Provided by American Heart Association

Citation: Opioid-related cardiac arrest patients differ from other cardiac arrests (2019, November 11) retrieved 9 July 2023 from <https://medicalxpress.com/news/2019-11-opioid-related-cardiac-patients-differ.html>

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