

## CARDIAC RESUSCITATION

**Bystander CPR improves outcomes in children after cardiac arrest**

Children who receive cardiopulmonary resuscitation (CPR) from bystanders after out-of-hospital cardiac arrest (OHCA) have better neurological outcomes than children who do not receive CPR by bystanders, according to a new study.

A prospective, nationwide, population-based registry enabled Taku Iwami and colleagues to study 5,170 children younger than 17 years. Children with all-cause OHCA who received CPR by bystanders had a 4.5% rate of favorable neurological outcome, whereas this rate was 1.9% among children who did not receive CPR.

“For pediatric OHCA from noncardiac causes, bystander-initiated conventional CPR with rescue breathing is preferable [to] compression-only [CPR],” says Iwami. Among this group, conventional CPR was associated with increased survival compared with chest-compression-only CPR (7.2% and 1.6%). This rate did not differ significantly in the group whose

OHCA had a cardiac cause (29% of children studied).

“The AHA recommends bystander-initiated chest-compression-only CPR for bystander-witnessed adult OHCA,” says Iwami, “but not for children. We strongly recommend that conventional CPR continues to be the standard treatment for children who have OHCA [of] noncardiac causes.”

“The therapy of choice for primary cardiac arrest is chest-compression-only CPR, regardless of age, as it is easier to teach, easier to learn, and easier to perform,” says Gordon Ewy from the Sarver Heart Center, USA. “[Conventional CPR] should be reserved for respiratory arrests.”

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