Family presence during cardiopulmonary resuscitation

A French randomised controlled trial found that offering family members the opportunity to observe when a close relative receives cardiopulmonary resuscitation has a positive effect on family members' psychological outcome.

Overview: The incidence of out-of-hospital cardiac arrest is on the rise in England: 28,784 people were resuscitated by ambulance services in 2012–13 (24.0% survival rate), compared with 24,136 in 2011–12 (22.1% survival rate). Some research (for example, Meyers et al. 1998) suggests that allowing family members to be present when their relative undergoes cardiopulmonary resuscitation may help people cope psychologically after the event. Other studies (such as Compton et al. 2009) have found an association between witnessing cardiopulmonary resuscitation of a family member and negative psychological outcomes.

Current advice: The 2010 guidelines for resuscitation from the European Resuscitation Council, of which the UK Resuscitation Council is a member, recommend that family members should be offered the opportunity to be present during resuscitation attempts. The UK Resuscitation Council's 2010 resuscitation guidelines (NICE accredited) suggest that parents or carers should be allowed to be present during an in-hospital resuscitation attempt of their child, but makes no recommendations regarding family presence at resuscitation for out-of-hospital cardiac arrest.

New evidence: Jabre et al. (2013) undertook a cluster randomised controlled trial to establish whether offering relatives the chance to observe cardiopulmonary resuscitation affected whether they subsequently experienced negative psychological symptoms. Between November 2009 and October 2011, 15 prehospital emergency medical service units in France participated in the study. Eight units systematically asked family members whether they wanted to be present during cardiopulmonary resuscitation of an adult relative in cardiac arrest at home (intervention). The remaining seven units followed standard practice for interacting with relatives (control). Family members were contacted by telephone 90 days after their relative's successful or unsuccessful resuscitation and asked to complete the Impact of Event scale and the Hospital Anxiety and Depression scale. The primary outcome was the frequency of symptoms of post-traumatic stress disorder at 90 days (intention-to-treat analysis), and the secondary outcomes included the frequency of symptoms of anxiety and depression (observed-cases population).

In total 211 (79%) of the 266 family members in the intervention group took up the offer to watch their relative being resuscitated, and 131 (43%) of those in the control group witnessed resuscitation. Less than one in five (17%) of the patients being resuscitated survived to hospital admission and only 20 patients (4%) were still alive at day 28. Family members who were given the opportunity to observe resuscitation were less likely to have symptoms of post-traumatic stress disorder than were those not given the chance to be present (odds ratio [OR] adjusted for the relative's relationship to the patient=1.7, 95% confidence interval [CI] 1.2 to 2.5, p=0.004). The results were similar for an analysis that excluded the 20 resuscitated patients who were alive at day 28 (p=0.009).
Being offered the chance to be present at resuscitation also resulted in a lower frequency of anxiety symptoms at follow-up (p<0.001), but had no significant effect on the frequency of symptoms of depression (p=0.13). Furthermore, relatives in either group who actually witnessed resuscitation were less likely to have symptoms of post-traumatic stress disorder (adjusted OR=1.6, 95% CI 1.1 to 2.5, p=0.02) than were those who were not present. Allowing a family member to observe resuscitation did not influence the nature of the resuscitation attempt, the effectiveness of resuscitation, the stress experienced by the healthcare team or the incidence of subsequent medico-legal claims.

**Commentary:** "The wide implementation of family-witnessed resuscitation as standard clinical practice has been resisted for a variety of reasons, often based on professionals’ anxieties rather than scientific data. Objections revolve around the detrimental effects that family members may experience by attending either a successful or unsuccessful resuscitation of a loved one, fear of litigation, and possible disruption of professionals’ efforts.

"The evidence from Jabre et al. (2013) should reassure clinicians, in that people who accepted the offer to witness the resuscitation of a family member were less likely to experience symptoms of post-traumatic stress disorder and other psychological problems than were those who declined to be present. Furthermore, issues of family interference were rare in this study, as were medico-legal claims.

“This evidence extends previous data from a prematurely curtailed study that showed reduced risks of psychological problems for bereaved family members who chose to witness the resuscitation of a loved one (Robinson et al. 1998). The work of Jabre et al. (2013) confirms that offering family members the opportunity to witness cardiopulmonary resuscitation of a loved one should be standard, while recognising that some people may decline an invitation. For those witnessing cardiopulmonary resuscitation, a trained professional should be available to explain and interpret the activities and procedures being performed on the patient. More research comparing populations in northern and southern European countries will be useful in ascertaining the impact of cultural variables on whether people want to witness resuscitation." – Dr John W Albarran, Associate Professor of Critical and Cardiovascular Nursing, University of the West of England, Bristol

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