and found that the major determinant of survival was chest reopening within 10 min.

7. Clinical bottom line

We conclude that due to the importance of minimising the delay to chest reopening, three shocks should be quickly delivered. If these do not succeed the chance of a 4th shock succeeding is likely to be less than 10% and, thus, immediate chest reopening should be performed. (This is a Class-IlA recommendation using ILCOR guideline recommendations.)

References


eComment: Cardioversion protocol for ventricular fibrillation: a more differentiated approach

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Without any doubt, the authors are right in their statement that more than three shocks are hardly effective in patients with ventricular fibrillation shortly after cardiac surgery [1]. However, I am not quite sure that this is the case when external cardiac massage (by hand and not by machines) is effective (patients on the Intensive Care Unit will mostly have an arterial pressure monitoring) and concomitant with the shocks a single dose of Amiodarone is applied.

In the Netherlands, and I suppose this is the case in other European countries, it is no longer common practice to have residents of the Cardio-thoracic surgery department in the hospital during the night. Due to the regulations on working hours, the number of residents needed for around the clock service is huge. Because of this, it can take 10 to 15 min before somebody capable of reopening the chest has arrived at the Intensive Care Unit. In our case, we experienced some good results from a fourth or even fifth shock, Amiodarone and of course, effective cardiac massage.

I advise to add to the recommendation: While waiting for somebody capable of reopening the chest, external cardiac massage should be continued and after a single dose of 5 mg/kg body weight of Amiodarone, two more shocks can be tried.

Reference