**Title:** Perimortem Cesarean Sections - Effective?
**Report By:** Pauline Heelan
**2nd Party Appraiser:**

**Clinical Scenario:**
You are called to an MVC where you find a 38 week gestation female in cardiac arrest. You run the protocol and after all attempts you are at the point where you would normally pronounce death... would performing an emergency c-section on the dead mother, provide a positive outcome for the fetus?

**PICO (Population - Intervention - Comparison - Outcome) Question:**
In Pregnant women in cardiac arrest, does emergency c-section have effect on fetal mortality

**Search Strategy:** Search words;
Pregnant / cardiac arrest / emergency c-section / perimortem / mortality

**Search Outcome:** 12 results

**Relevant Papers:**

<table>
<thead>
<tr>
<th>AUTHOR, DATE</th>
<th>POPULATION: Sample Characteristics</th>
<th>DESIGN (LOE)</th>
<th>OUTCOMES</th>
<th>RESULTS</th>
<th>STRENGTHS/WEAKNESSES</th>
</tr>
</thead>
</table>
| Yildrim, C. 2004 / June | Pregnant cardiac arrest due to penetrating trauma | 3 Clinical experience | Fetus survived; 45 minutes after cardiac arrest began | Healthy baby – no deficits | Only looks at one case  
Involves only penetrating injury  
Shows survival possible after extended down time |
| Katz, V 2005       | Perimortem caesarean delivery in presence of maternal death | 3 Descriptive studies | Perimortem c-section performed ASAP has best fetal survival rate | 38 cases; 34 fetus’ survived perimortem c-sections *11 within 5 min of C.A.  
*4 within 6-10 min | Takes studies from 1985-2004  
Included variety of times from cardiac arrests and different gestation periods  
Doesn’t account for medical |
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| Kue, R | Pregnant cardiac arrest from MVC; c-section performed by paramedics | 3 | Fetal death; c-section performed approx. 45 min after cardiac arrest | Fetal death | Only one case
|        |                                                                         |   |                                                                         |            | Demonstrated the abilities for paramedics to perform procedure |

**Comments:**

Most articles found were individual cases and only 2 documented cases of paramedics performing procedure.

**Consider:** Why would you NOT change practice, based on this article?
- Skill level may be too high
- Limited number of actual scenarios where this could be used
- Time restraints involved

**Clinical Bottom Line:**

When dealing with pregnancy related cardiac arrest it is crucial to get to the hospital as soon as possible, where an emergency c-section is the only definitive care for possible fetal survival.

**References:**

Perimortem Cesarean section in the helicopter EMS setting
Kue R, Coyle C, Vaughan E, Restuccia M.

Perimortem caesarean delivery; Were our assumptions correct?
Vern Katz, MD, Keith Balderston, MD, Melissa DeFreest, MD
American journal of obstetrics and gynecology (2005) 192, 1919-21

Direct correspondence with Dr. Vern Katz (author of perimortem c-section studies)
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