**Results:** Patients in phase 1 n = 108, 2 n = 52, and 3 n = 104 had similar characteristics: mean age 67.7 (range 3097), male 71.2%, witnessed arrest 48.9%, initial rhythm asystole 50.2%, VF/VT 32.3%, PEA 17.5%, 9-1-1 call to vehicle at scene 5 min:34 sec, survival to hospital discharge 4.9%. Bystander CPR rate was 14.6% during the 12 month control period compared to 28.9% during the 3-month PSAs intervention (Chi-square 5.9, p = 0.02). We adjusted the effect of PSAs on bystander CPR rates for the victim's age, gender, witnessed status, initial rhythm, and EMS time intervals. The adjusted Odds Ratio was 2.9, 95% CI = 1.2 to 7.0, p = 0.02, Goodness-of-Fit = 0.62. We were underpowered to study the effect of PSAs on survival: OR 0.3, 95% CI = 0.04 to 2.6.
**Conclusions:** We urge all cities to introduce CPR education PSAs as means to improving bystander CPR rates. The impact of PSAs on survival to hospital discharge requires further studies.

## 434 A Comparison of the Emergency Medicine Physician and the Lay Person Understanding of Do Not Attempt Resuscitation Orders

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**Objectives:** Patients often present to the emergency department (ED) with a signed Do Not Attempt Resuscitation (DNAR) order. End of life management decisions are often made by the emergency medicine physician (EMP) based on the presence of a DNAR order and little other knowledge of the patient's desire for end of life care. We attempt to determine if the lay person's understanding of a DNAR order and its impact on patient care is similar to that of the EMP.
**Methods:** We constructed a brief survey that was administered to patients and family members presenting to a Level 1 Trauma center and to EMPs (attending and resident level). The survey depicted two patients one of whom presents in cardiac arrest and the other who presents unconscious but with a pulse and respiratory effort. Subjects are asked to answer yes or no as to whether or not certain interventions or diagnostic studies should be performed.
**Results:** 132 lay persons and 32 EMPs completed the survey. A direct comparison of the responses was made using chi-square analysis and p-value determination.
For 10/14 questions posed there is a statistically significant difference between the lay person and the EMPs understanding of how a DNAR order impacts patient care.
**Conclusions:** A definite discordance exists between the lay person's and EMPs' understanding of how a DNAR order impact's patient care.

| Scenario and Intervention | % Lay Persons | % EMPs | p-value |
|---|---|---|---|
| Pulseless cardiac arrest: | | | |
| Not try to restart heart with medications or electric shock | 43.9 | 100 | <0.001 |
| Not do CPR | 46.2 | 100 | <0.001 |
| Not insert breathing tube | 48.5 | 93.8 | <0.001 |
| Let the doctor determine what should be done | 38.6 | 3.2 | <0.001 |
| Obtain X-rays | 64.4 | 34.4 | <0.002 |
| Start an IV | 59.8 | 34.4 | <0.01 |
| Perform surgery | 53.0 | 18.7 | <0.001 |
| Perform blood tests | 65.9 | 34.4 | <0.002 |
| Unconscious with pulse and spontaneous respiratory effort: | | | |
| Not insert breathing tube | 33.3 | 62.5 | <0.005 |
| Let the doctor determine what should be done | 47.0 | 28.1 | <0.05 |
| Obtain X-rays | 71.2 | 84.4 | >0.05 |
| Start an IV | 70.5 | 87.5 | >0.05 |
| Perform surgery | 61.4 | 53.1 | >0.05 |
| Perform blood tests | 73.5 | 87.5 | >0.05 |

## 435 Burst Stimulation Improves Hemodynamics Following ROSC after Prolonged Ventricular Fibrillation and Resuscitation

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**Objectives:** Poor hemodynamics often follow return of spontaneous circulation (ROSC) after defibrillation of prolonged ventricular fibrillation (VF). Previously, we showed that burst stimulation can stimulate the sympathetic nervous system to increase arterial blood pressure (ABP) and cardiac contractility immediately after defibrillation following short duration VF. In this study, we tested the hypotheses that burst stimulation can increase blood pressure and cardiac contractility following ROSC and subsequent hemodynamic collapse and that this response is dose dependent.
**Methods:** After 6-8 min of VF, swine were defibrillated and resuscitated using BLS techniques while ABP and left ventricular pressure (LVP) were recorded. When ABP fell below 50 mmHg during resuscitation, animals randomly received 5, 10, 15 or 20 pulse packets (PPs). Each PP consisted of 6 1-msec 10 Amp pulses delivered through the defibrillation pads and synchronized to the ECG R-wave. Whenever ABP subsequently fell below 50 mmHg, the animal received a different PP. Peak APB, LV +dP/dt, and −dP/dt were determined following delivery of each PP.
**Results:** The results (mean ± SD) for the 6 animals that received all 4 PPs are below.

| PP | Peak ABP (mmHg) | Peak +dP/dt (mmHg/sec) | Peak −dP/dt (mmHg/sec) |
|---|---|---|---|
| Pre-PP | 47 ± 3 | 508 ± 96 | −431 ± 90 |
| 5 | 103 ± 16 | 3696 ± 762 | −1661 ± 374 |
| 10 | 124 ± 8 | 5995 ± 1037 | −3014 ± 798 |
| 15 | 134 ± 12 | 6281 ± 1026 | −3182 ± 755 |
| 20 | 139 ± 11 | 6285 ± 2791 | −3606 ± 770 |

**Conclusions:** Burst stimulation improves cardiac contractility and hemodynamics following the loss of ROSC during resuscitation following cardiac arrest and defibrillation. The response to this burst stimulation is dose dependent.