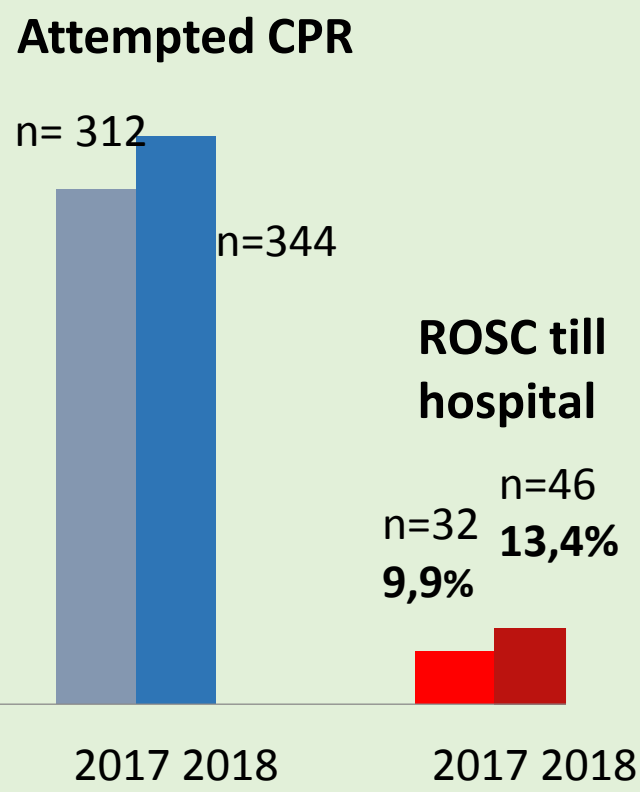


# Did education take part in improving out of hospital cardiac arrest outcomes?

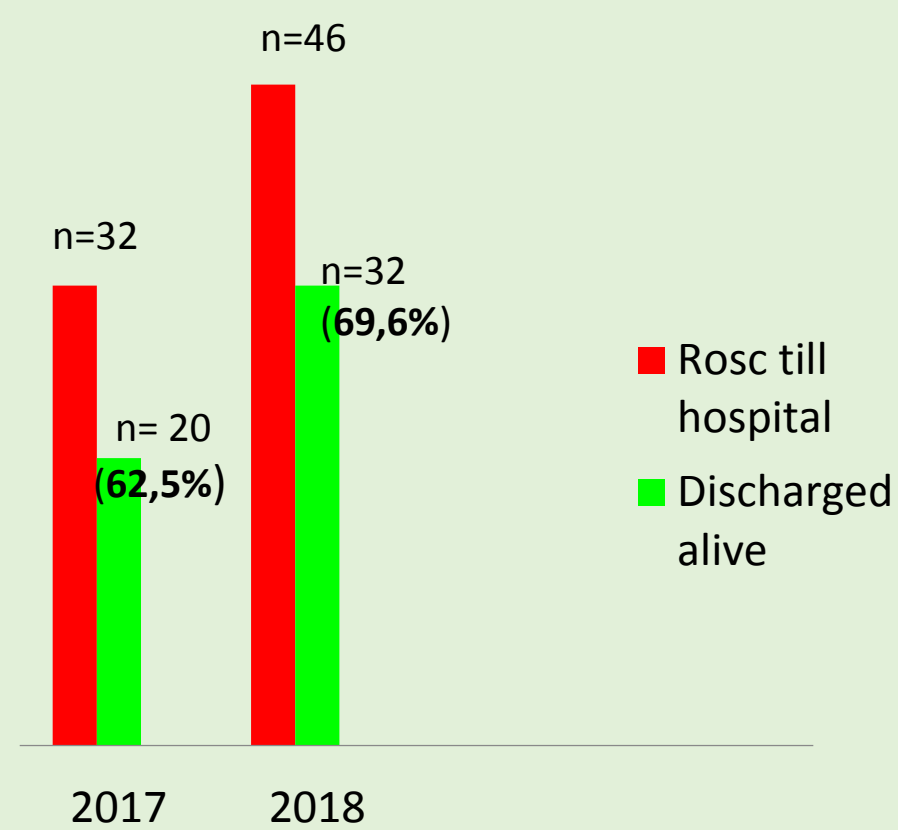
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**INTRODUCTION:** Emergency medical service in Split – Dalmatian County is two-tier system – in Split it consists of three Team 1 ( T1 - physician, emergency medicine technician - EMT, driver with no former medical education) and Team 2 ( T2 - two EMT), taking care of 454229 inhabitants. Since 2016 all team members (280) working in Institute for Emergency Medicine Split-Dalmatian County have passed standardized education in skills and procedures according to recent resuscitation guidelines and competencies. We tried to assess if education had contributed to improved results considering return of spontaneous circulation (ROSC) maintained until transfer to Clinical Hospital Centre Split.

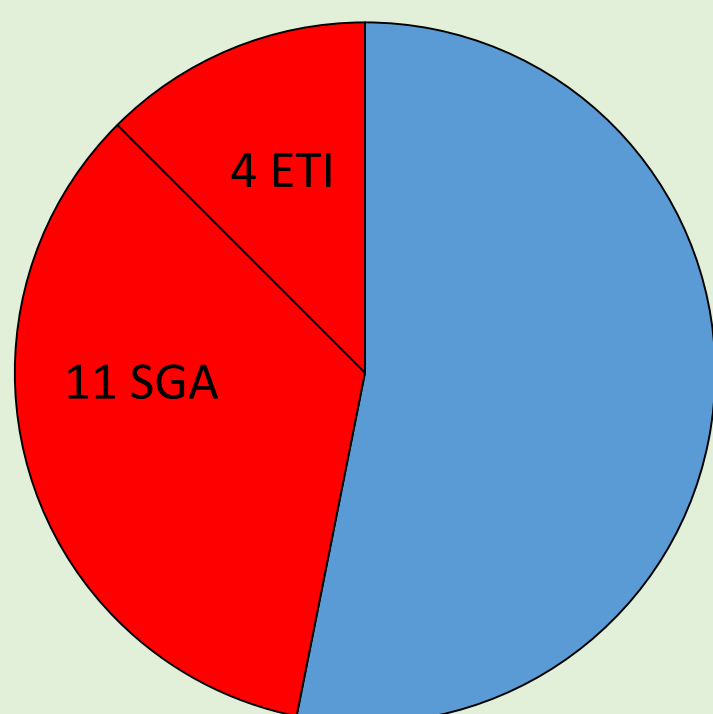
**RESULTS:** In 2017 were 312 attempted CPR, 32 ROSC till hospital ( 9.9%), 20 were discharged home alive ( 62,5% of ROSC till hospital, 6.4% of attempted CPR). 15 patients (46,9%) had advanced airway (11 SGA+ 4 ETI). In 2018 there were 344 attempted CPR, 46 ROSC till hospital (13,4%), 32 were discharged home alive (69,6% of ROSC till hospital, 9.3 % of attempted CPR). 36 patients ( 78,2%) had advanced airway ( 26 SGA + 10 ETI). Rosc till hospital raised for 3,5% (  $X^2 p>0,05$ ). Discharged from hospital alive in 2018 improved for 7,1 % considering ROSC till hospital, and 2,9% according to attempted CPR.



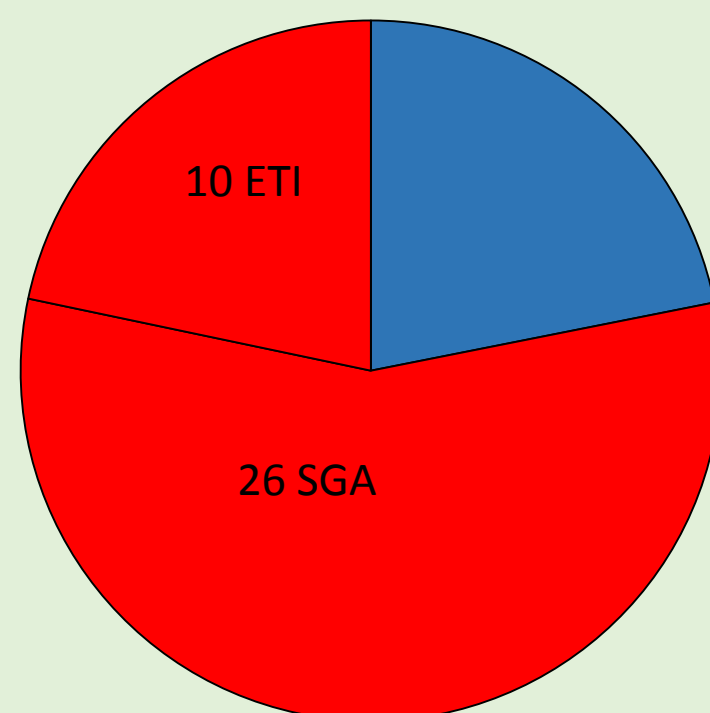
**METHODS:** We have compared Utstein forms for 2017 and 2018 year – number of attempted cardiopulmonary resuscitation (CPR), ROSC till hospital, application of advanced airway devices (supraglottic device SGA, endotracheal intubation ETI). Outcomes were ROSC sustained till hospital and discharge from hospital. Cardiac arrests caused by trauma were excluded. Significance was tested by  $X^2$  test.



**CONCLUSION:** Although the raise of ROSC till hospital is not statistically significant, we believe it is associated with continuous education and skill training. Future monitoring of outcome is necessary including following other quality indicators besides skill training of EMS in field (time of 1st defibrillation, continuous chest compression, managing airway), but also dispatcher CPR instructions, time of arrival as well as communication with Emergency Department in Clinical hospital Centre Split so that conclusion on better outcome is based on stronger evidence.



2017 ROSC till hospital n=32



2018 ROSC till hospital n=46

■ No airway  
■ Advanced airway

■ No airway  
■ Advanced airway