

# Enhancing Patient Safety: What A Radiologist Should Know About Resuscitation

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## Objectives

Cardiac arrests are common in hospitals and are associated with high mortality rates. It is well established that early cardiopulmonary resuscitation (CPR), with an emphasis on high quality chest compressions, rapid defibrillation and advanced life support would improve the likelihood of survival. A survey was performed to assess resuscitation knowledge and attitude amongst a group of radiologists.

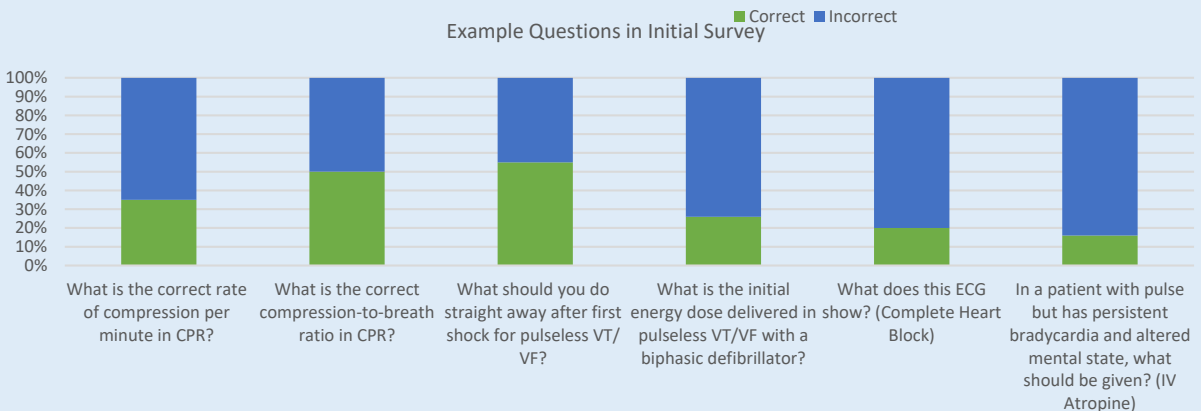
## Methods

A questionnaire of 15 questions based on American Heart Association Basic (BLS) and Advanced Cardiovascular Life Support (ACLS) was given to a group of radiologists to assess their knowledge in the latest resuscitation guidelines. They were also asked how confident they were in performing BLS and ACLS. A refresher lecture was given by an ACLS provider and a repeat questionnaire was carried out.

## Results

20 radiologists participated in this exercise. The average total score for initial survey testing basic BLS and ACLS knowledge was 48%. Radiologists scored most poorly in recognising different rhythms on ECG. After the refresher lecture, the total score improved to 78% with 90% of radiologists able to recognise a shockable rhythm and knew the correct dosage and time frame for administering adrenaline. However, radiologists still scored poorly in differentiating between different types of heart blocks and in management of different types of tachy/bradycardia in a clinically unstable patient.

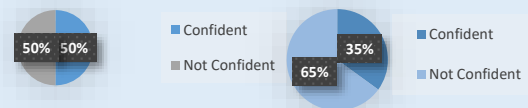
Example Questions in Initial Survey



## Conclusion

With less clinical exposure, it is inevitable for radiologists to become less confident in dealing with resuscitation. However, as good quality CPR and advanced life support can improve a patient's outcome and survival. It is important that radiologists are up to date with the latest resuscitation guidelines and feel confident in delivering effective and high quality basic and advanced life support.

Initial Survey: How confident are you in delivering BLS? Initial Survey: How confident are you in delivering ACLS?



### How much do you know about ACLS? Test Yourself!!

- 1) If there is no advanced airway, what is the correct compression-ventilation ratio in CPR?
  - 2) How deep and fast should you push during CPR?
  - 3) How much and often should IV adrenaline be administered in cardiac arrest?
  - 4) Which rhythms are shockable?
  - 5) When should you give the first dose of adrenaline in pulseless ventricular tachycardia or ventricular fibrillation?
- (Answers are down the side!)