Cardiopulmonary resuscitation (CPR) and Personal Protective Equipment (PPE)

A statement from the Academy of Medical Royal Colleges

Public Health England has produced revised guidance on PPE which included advice on CPR in healthcare settings. Based on the NERVTAG evidence review and consensus statement, PHE has stated that chest compressions and defibrillation (as part of resuscitation) will not be added to the list of aerosol generating procedures (AGPs). Therefore, their advice is that first responders [any setting] can commence chest compressions and defibrillation without the need for AGP PPE while awaiting the arrival of other clinicians to undertake airway manoeuvres. The PHE position is set out in PHE guidance on AGPs and Chest Compression [see Section 8.1].

The Resuscitation Council guidance on CPR and COVID-19 differs in that it states that chest compressions should be considered as AGPs and, in the healthcare setting [acute or non-acute] level 3 PPE should be donned before commencing either chest compressions or airway manoeuvres during resuscitation. They indicate that defibrillation is not an AGP and can be performed safely without level 3 PPE. In community settings, RCUK’s advice is that rescuers should be asked to place a towel/cloth over the victim’s mouth and nose during chest compressions if there is a perceived risk of infection.

This indicates that the evidence itself is inconclusive but has lead two highly respected scientific groups, NERVTAG and RCUK, to draw different conclusions as to the AGP nature of chest compressions and the appropriate course of action with regard to PPE. While that is legitimate it may create dilemmas for individual clinicians and healthcare organisations.

The new PHE guidance, however, goes on to say that healthcare organisations may choose to advise their clinical staff to wear FFP3 respirators, gowns, eye protection and gloves when performing chest compressions but it is strongly advised that there is no potential delay in delivering this life saving intervention.

The Academy believes that it is essential that health workers have appropriate protection for the circumstances in which they are working. It is important to recognise that clinical and situational circumstances vary and requirements in different settings will not be the same. For example, long term non-acute healthcare settings, such as mental health organisations, or paediatric / neonatal units will pose different risks to those in an acute setting regarding possible virus spread and expected success rates of CPR.

The Academy suggests that organisations and clinicians should agree, as soon as possible, on the local policy regarding availability and use of PPE in resuscitation situations in order to provide the proper protection for staff. It is anticipated that they are guided by the consensus view of those clinicians likely to be involved in resuscitation and that local decisions are transparently agreed, understood, shared and adequately resourced.

Risk assessment is the first action in resuscitation and this needs to be undertaken with staff and patient safety foremost. The necessary equipment must be to hand so that these risks can be met or mitigated in all situations.
Some Colleges have set out specialty specific approach and the position of individual Colleges can be found on their websites. Specific statements include,

Royal College of Physicians [CPR, personal protective equipment and COVID-19](link)

Royal College of Physicians Edinburgh [COVID-19: College supports RCUK CPR guidance](link)

Royal College of Physicians and Surgeons of Glasgow [Royal Medical College calls for tightening of rules on the use of PPE to protect doctors](link)

Royal College of Emergency Medicine [PPE guidance for CPR position statement](link)