COVID-19 in schools:

Infection control, personal protective equipment and the latest CPR advice

There are a number of challenges in order to safely return more children to school. Emma Hammett provides an overview of the latest guidance on infection control, personal protective equipment and CPR for educational settings.

Emma Hammett, registered nurse and founder and CEO of First Aid for Life

The challenges of COVID-19 have been particularly difficult for schools, nurseries and childcare providers. It is not easy to try and socially distance within a school environment, particularly if there are a large number of younger children.

Despite this, most education and childcare settings have remained open to priority groups during the coronavirus lockdown measures, providing care to vulnerable children and children of key workers. The government is now encouraging parents of other groups of eligible children to send them back to school.

Safely returning more children to educational and childcare settings is important to enable people to return to work and to restart the economy.

This article seeks to provide clear direction to staff working in schools, colleges and childcare settings on infection control, first aid and resuscitation in a childcare and educational setting.

The government has published detailed guidance on preparing for the wider opening of early years and childcare settings, actions for schools during the coronavirus (COVID-19) outbreak and guidance for special schools, specialist colleges, local authorities and any other settings (Department for Education [DfE], 2020a; 2020b; 2020c). This guidance is regularly updated.

Effective infection control measures

Children, young people, their parents and those who work with them can take a number of important actions during the coronavirus (COVID-19) outbreak, to help prevent the spread of the virus.

In education, childcare and social care settings, it is vital to reduce the likelihood of direct transmission (from being in close contact with an infected person) and indirect transmission (via touching contaminated surfaces). Consequently, the following measures should be taken by everyone within childcare and educational establishments, to reduce the likelihood of further viral spread:

- Minimising contact with individuals who are unwell by ensuring that those who have coronavirus (COVID-19) symptoms, or who have someone in their household who does, do not attend childcare settings, schools or colleges – there will need to be regular screening to ensure teachers, pupils and parents are reminded of the importance to declare any changes to their coronavirus status on a daily basis.
- Cleaning hands more often than usual – wash hands thoroughly for 20 seconds with running water and soap and dry them thoroughly or use alcohol hand rub or sanitiser, ensuring that all parts of the hands are covered. Schools will need to provide hand sanitiser and additional hand-washing stations to facilitate this. It is vital that teachers continually reinforce the importance of hand and respiratory hygiene and facilitate times for handwashing throughout the day.
- Ensuring good respiratory hygiene by promoting the 'catch it, bin it, kill it' approach – Schools should ensure every classroom has a lidded bin and that this is emptied regularly throughout the day.
- Cleaning frequently touched surfaces

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often using standard products, such as detergents and bleach – It will be necessary for most schools to increase their cleaning regime and provide staff with suitable wipes and cleaning materials to maintain the necessary level of infection control (Public Health England [PHE], 2020a).

- High traffic areas and regularly touched items such as light switches, computer screens and mice, door knobs, lift buttons, bannisters, taps, loo flushes etc. should all be cleaned on a regular basis.
- Children should have their own pens, pencils, books etc. and avoid sharing any equipment wherever possible. If it is essential that equipment is shared and it cannot easily be cleaned, it should be appropriately quarantined.
- Minimising contact and mixing by altering, as much as possible, the environment (such as the classroom layout) and timetables (such as staggered break times).
- Classrooms should be well-ventilated and schools should use outdoor space whenever possible.

Personal protective equipment (PPE) including face coverings and face masks

At the time of writing, the wearing of a face covering or face mask in schools or other education settings is not recommended government advice.

The government states that the majority of staff in education settings will not require PPE beyond what they would normally need for their work, even if they are not always able to maintain a distance of 2 metres from others. PPE is only needed in a very small number of cases including (DfE, 2020d; 2020e):

- 'Children, young people and students whose care routinely already involves the use of PPE due to their intimate care needs should continue to receive their care in the same way.
- 'If a child, young person or other learner becomes unwell with symptoms of COVID-19 while in their setting and needs direct personal care until they can return home. A fluid-resistant surgical face mask should be worn by the supervising adult if a distance of 2 metres cannot be maintained. If contact with the child or young person is necessary, then disposable gloves, a disposable apron and a fluid-resistant surgical face mask should be worn by the supervising adult. If a risk assessment determines that there is a risk of splashing to the eyes, for example from coughing, spitting, or vomiting, then eye protection should also be worn' – schools will need to invest in this PPE to ensure it is available if needed.

What happens if someone becomes unwell in an educational or childcare setting?

If anyone in an education or childcare setting becomes unwell with COVID-19 symptoms, such as; a new, continuous cough or a high temperature, or change in normal sense of taste or smell (anosmia), they must be sent home and advised to follow the COVID-19: guidance for households with possible coronavirus (COVID-19) infection (PHE, 2020b).

If a child is awaiting collection, they should ideally be isolated from others in a well-ventilated room. If it is not possible to isolate them, they should be relocated to an area at least 2 metres away from other people.

If they need to go to the bathroom while awaiting collection, they should

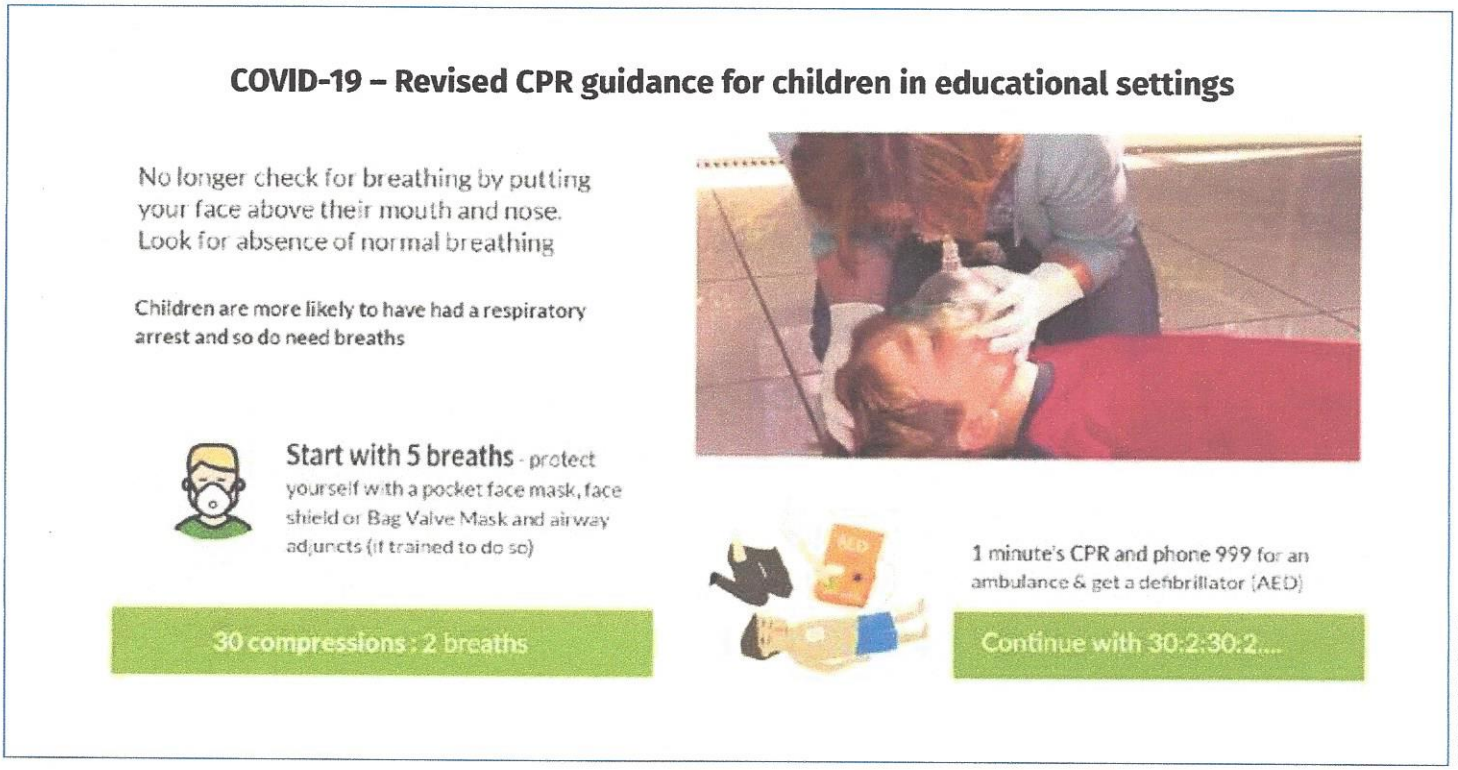

Figure 1. COVID-19 – Revised CPR guidance for children in educational settings

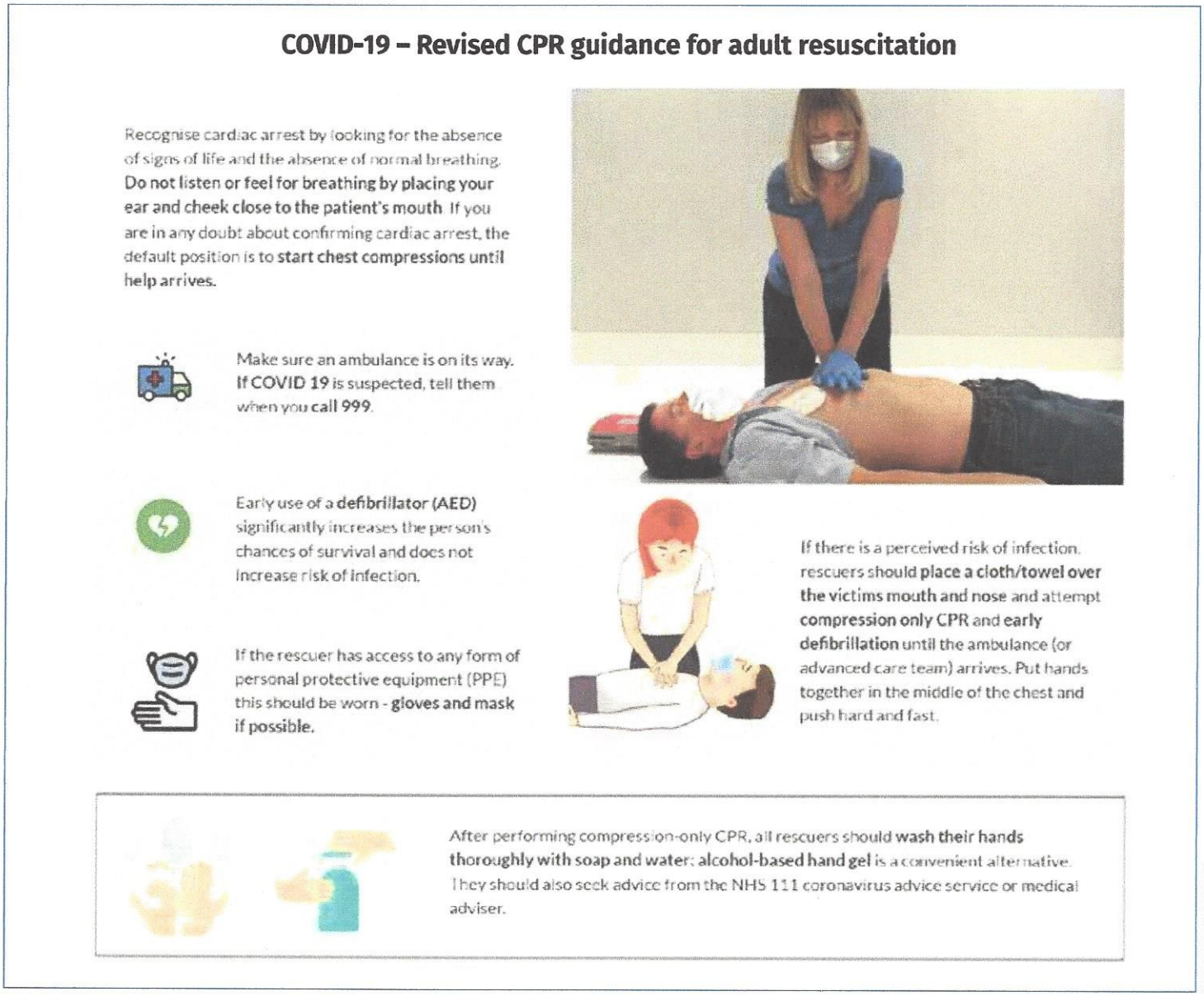

Figure 2. COVID-19 – Revised CPR guidance for adult resuscitation

use a separate bathroom if possible. The bathroom should be cleaned and disinfected using standard cleaning products before being used by anyone else (DfE, 2020e).

PPE should be worn by staff caring for the child while they await collection if a distance of 2 metres cannot be maintained (such as for a very young child or a child with complex needs) (DfE, 2020e).

In an emergency, call 999 if they are seriously ill or injured or their life is at risk – state that you suspect COVID-19.

If a member of staff has helped someone with symptoms, they do not need to go home unless they develop symptoms themselves. They should wash their hands thoroughly for 20 seconds after contact with someone who is unwell. It is vital that any contaminated areas are thoroughly cleaned once the patient has left (DfE, 2020e).

What if a child is unconscious and not breathing and needs CPR?

The Resuscitation Council UK (2020) and the government's guidance (PHE, 2020c) give the following temporary CPR advice specifically for COVID-19:

- During the COVID-19 pandemic, it is no longer advised to look listen and feel with your head above the mouth and nose, in order to establish if a person is breathing normally. Instead you should recognise cardiac arrest by looking for the absence of signs of life and absence of normal breathing. If you are in any doubt whether or not the person is breathing normally, start chest compressions until help arrives.
- Call 999 for an ambulance and advise the emergency service if COVID-19 is suspected.
- If there is a perceived risk of infection, place a cloth/towel over the victim's mouth and nose and start compression only CPR and early defibrillation until the ambulance arrives. Place hands on the centre of the chest and push hard and fast.

- Early use of a defibrillator (AED) significantly increases the person's chances of survival and does not increase risk of infection.
- Wear personal protective equipment (PPE), such as gloves and face mask, if possible.
- After performing compression-only CPR, all rescuers should wash their hands thoroughly with soap and water or use alcohol-based hand gel. They should also seek advice from the NHS 111 coronavirus advice service or medical adviser.

COVID-19 advice for a child who is unconscious and not breathing

The government gives the following advice (PHE, 2020c):

- 'Cardiac arrest in children is more likely to be caused by a respiratory problem (asphyxial arrest), therefore chest compressions alone are unlikely to be effective.
- 'If a decision is made to perform mouth-to-mouth ventilation in asphyxial arrest, use a resuscitation face shield where available.
- 'Should you have given mouth-to-mouth ventilation there are no additional actions to be taken other than to monitor yourself for symptoms of possible COVID-19 over the following 14 days. Should you develop such symptoms you should follow the advice on what to do on the NHS website.'

The Resuscitation Council UK (2020) gives more detailed guidance:

'We are aware that paediatric cardiac arrest is unlikely to be caused by a cardiac problem and is more likely to be a respiratory one, making ventilations crucial to the child's chances of survival. However, for those not trained in paediatric resuscitation, the most important thing is to act quickly to ensure the child gets the treatment they need in the critical situation.

'For out-of-hospital cardiac arrest, the importance of calling an ambulance and taking immediate action cannot be stressed highly enough. If a child is not breathing normally and no actions are taken, their heart will stop and full cardiac arrest will occur. Therefore, if there is any doubt about what to do, this statement should be used.

'It is likely that the child/infant having an out-of-hospital cardiac arrest will be known to you. We accept that doing rescue breaths will increase the risk of transmitting the COVID-19 virus, either to the rescuer or the child/infant. However, this risk is small compared to the risk of taking no action as this will result in certain cardiac arrest and the death of the child'.

Further to the above advice, the following statement was issued by Resus UK, in direct response to a letter from the Group Health and Safety Manager at the Harris Federation requesting clarification on this topic:

'The Resuscitation Council UK's Paediatric Guidance was written with the general public in mind as we know that many sudden cardiac arrests occur in the home hence it is possible that the child/infant having an out-of-hospital cardiac arrest maybe known to you.

'However, we recognise that in the school situation this may not always be the case. In this instance, the actions taken by the rescuer would be guided by dynamic/rapid risk assessment, considering such factors as the history of the child's collapse and any known medical history, the presence or otherwise of COVID–19 signs/symptoms and the medical history of the rescuer.

'We accept that doing rescue breaths will increase the risk of transmitting the COVID-19 virus, either to the rescuer or the child/infant (hence the need for a rapid dynamic risk assessment at the point of collapse). If the decision is to give rescue breaths, this may be mitigated by the use of airway adjuncts such as face shield, pocket mask or bag-valve-mask device if training has been received in the use of such devices. The choice of airway adjunct is dependent on the local environment, the level of training available to staff, and local supply chains.' **CHHE**

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FURTHER INFORMATION

Resuscitation Council UK

Resuscitation Council UK Statements on COVID-19 (Coronavirus), CPR and Resuscitation

https://www.resus.org.uk/media/statements/resuscitation-council-uk-statements-on-covid-19-coronavirus-cpr-and-resuscitation/

First Aid for Life

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It also offers free resources, online learning and innovative teaching options to teach pupils first aid in schools. For more information, please email emma@firstaidforlife.org.uk or call 0208 675 4036

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