HSE Guidance Regarding Cardiopulmonary Resuscitation and DNAR Decision-Making during the COVID-19 Pandemic

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Abbreviations

CPR	Cardiopulmonary Resuscitation
DoH	Department of Health
DNAR	Do Not Attempt Resuscitation
HCW	Healthcare Worker (A Healthcare Worker is one who delivers care and services)
HSE	Health Service Executive
ICU	Intensive Care Unit
PPE	Personal Protective Equipment

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1. Background

This guidance is for healthcare workers (HCW's) regarding advance care planning and cardiopulmonary resuscitation (CPR) decision-making including making Do Not Attempt Resuscitation (DNAR) decisions. It is provided in the context of the COVID-19 pandemic.

This guidance should be read in conjunction with other relevant guidance, including the Health Service Executive (HSE) National Consent Policy 2019[1], the Department of Health (DoH) Ethical Framework for Decision-Making in a Pandemic, the DoH Ethical Considerations Relating to Critical Care in the context of COVID-19 and the DoH Ethical Considerations for Personal Protective Equipment (PPE) Use by Health Care Workers in a Pandemic[2].

This guidance is applicable to all care environments where services are provided for and on behalf of the HSE including acute hospitals, the ambulance service, community hospitals, residential care settings, general practice and home care.

2. Specific context for this guidance

The fundamental principles of good clinical practice remain the same during COVID-19.

- **Non-discrimination** - Decisions should be made on a case by case basis and should not be based on factors such as age, disability, race, ethnicity or place of residence. Any distinction based solely on age, disability or place of residence is discriminatory and is contrary to human rights principles. Similarly, there should be no discrimination for or against people who have or are suspected to have COVID-19.
- **Advance care planning** - Having honest, open and sensitive discussions with people about their condition and prognosis in a language that they can understand, eliciting their goals and preferences, and making decisions having regard to their wishes about what interventions would be appropriate if there were a deterioration in their condition are always important.
- **Balancing Benefit and Harm -** Decision making that takes account of people's own goals and preferences regarding the appropriateness of CPR in the event of a cardiorespiratory arrest requires balancing the likelihood of benefit with that of harm from performing CPR in each individual case. If the recommendation is that resuscitation would not be appropriate in a particular case, this recommendation should be made only to ensure that the person is not subjected to an unwanted, or inappropriate and harmful intervention, not to deprive a person of something that would benefit them or to ration care.

[1] https://www.hse.ie/eng/about/who/qid/other-quality-improvement-programmes/consent/national-consent-policy-hse-v1-3-june-2019.pdf
[2] https://www.gov.ie/en/publication/a02c5a-what-is-happening/

COVID-19 presents some new challenges. Although many people will be asymptomatic or have relatively mild symptoms, a substantial minority, particularly those who are older, frailer or have significant comorbid conditions, will develop severe illness. Our knowledge about COVID-19, and how best to treat these individuals, is growing rapidly. Our present state of knowledge suggests:

- People with severe COVID-19 who have a cardiorespiratory arrest as a result have poor survival rates and poor functional outcomes, and this affects the balance between the likelihood of success of performing CPR and its potential for harm.
- When people with severe COVID-19 require critical care, it may be for a relatively prolonged period. Those who survive such critical illness may have significant worsening of physical and cognitive function, when compared to their pre-COVID status, and this should be taken into account when considering the appropriateness of an intervention.
- Residents of residential care facilities are disproportionally affected by COVID-19. Where possible and appropriate, informed and updated advance care plans taking account of the goals and preferences of residents should be in place and these should inform all clinical decisions.
- COVID-19 raises specific safety concerns for healthcare workers (HCWs) in relation to the provision of CPR as there can be a serious risk of aerosol exposure and infection from some procedures.

This guidance will specifically address these issues with reference to new and existing information.

3. Advance care planning

3.1 General principles of advance care planning

Advance care planning entails

- having honest, open and sensitive discussions with people about their condition and prognosis in a language that they can understand,
- eliciting their goals and preferences, and
- making decisions having regard to their wishes about what interventions would be appropriate if there were a deterioration in the person's condition.

Advance care planning is an important aspect of good clinical practice. It allows people to have more choice and more control over their care, to avoid invasive interventions that they don't want and results in better care and better symptom relief in end-of-life situations[3].

[3] For useful resources on advance care planning see:
https://hospicefoundation.ie/programmes/public-awareness/think-ahead/
https://hospicefoundation.ie/programmes/advance-care/
https://respectingchoices.org/

Advance care planning applies equally to everyone irrespective of decision-making capacity. Everyone should be supported to set out their goals and preferences, while they are well and able to do so. If the person wishes or if this requires the support or involvement of others, such as trusted friends and family, key workers or advocates, this should be provided. Advance care planning is an important guidance to HCW's[4] about how and what care should be provided. Advance care planning may be done in writing or by video/audio recording.

In circumstances where the person is unable with support to express fully their own goals and preferences, any view that they can express will be central to any plan developed, and discussion between HCW's and trusted people close to the person about the person's goals and preferences often allows an appropriate advance care plan for their future care to be developed.

Advance care planning can be initiated by the person themselves or it is sometimes done in collaboration with HCW's - depending on where they reside - as part of their overall individual assessment and care plans. If an advance care plan has been drawn up without the involvement of the person this should be revisited. People should be given the time to think and talk about advance plans without pressure or coercion: it is never acceptable in advance care planning to put pressure on a person to make an advance plan and/or to accept or refuse treatment as part of that plan.

While advance care planning is important for everyone to consider, there are certain circumstances when it is particularly important:

- When the person wishes to discuss advance care planning;
- When the person has a life-limiting advanced progressive illness;
- When it is considered possible that the person may die in the next year;
- If the person, or those close to him or her, seem to have expectations which are unduly optimistic or inconsistent with clinical judgment;
- When there is a significant deterioration in the person's condition.

If the person does not have an advance plan already made in any of the circumstances listed above, or it has been completed but isn't available, it is the responsibility of the senior clinical decision maker to ensure that advance care discussions occur in a timely manner. The senior clinical decision maker is often but not exclusively the registered medical practitioner responsible for the person's medical care, which will depend on where care is being provided at that time.

3.2 Advance healthcare directives

If a person lacking decision-making capacity has an advance healthcare directive refusing CPR relevant to their current situation, this should be respected. The provision for an advance healthcare directive, a legally binding statement of the kind, extent, and limit of medical and surgical treatment a person might want in the future, contained within the Assisted Decision Making (Capacity) Act (2015), is not yet in force. Nevertheless, if a person

[4] This includes all categories of people working in healthcare.

lacking decision-making capacity has a valid and applicable[5] advance healthcare directive refusing CPR, this should be respected. Such statements represent an important indication of the person's wishes and preferences.

3.3 Advance care planning and COVID-19

In the current pandemic, HCW's are under great pressure to make urgent, clinically complex decisions. Some people who have COVID-19 can deteriorate quickly, and it is the responsibility of the senior clinical decision maker to ensure that advance care discussions occur in a timely manner when a person has or is suspected to have COVID-19. This will ensure that the person's goals and preferences can be considered, and that care is provided in the most suitable environment.

The need for HCW's to wear equipment such as masks and restrictions on visiting, in accordance with public health guidance, may make effective communication with people and those close to them, more difficult during COVID-19 but it remains essential. Discussions about advance care usually happen face to face but during COVID-19, mobile devices or other technology can be used where necessary to facilitate communication. Patients should have the same opportunity to be involved in these discussions as they would if they happened face to face, and the same opportunity to control the information that is disclosed and to whom it is disclosed.

4. Do Not Attempt Resuscitation (DNAR) decision-making

4.1 General principles of DNAR decision-making

Advance care planning includes consideration of cardiopulmonary resuscitation (CPR) and Do Not Attempt Resuscitation /DNAR. Decisions about CPR must always be made on the basis of an individual assessment of each individual case and not, for example, solely on the basis of age or disability. Any distinction based solely on such criteria is discriminatory and is contrary to human rights principles:

- DNAR decisions should be made in the context of the person's overall goals and preferences for treatment and care as well as the likelihood of success and the potential risks and harms.
- Determination of the person's goals and preferences requires discussion with the person themselves.
- If the person is unable to participate in discussions after being given appropriate supports to do so, those close to them may have knowledge of their previously expressed goals and preferences. However, the role of those close to the person is

[5] An advance healthcare directive is valid if made voluntarily at a time when the directive maker had the necessary decision-making capacity to do so. An advance healthcare directive refusing CPR is applicable if the directive-maker no longer has the decision-making capacity to give or refuse consent to CPR, the circumstances in which the advance healthcare is to apply are materially the same and the directive contains a statement that it is to apply even if the directive-maker's life is at risk as a result.

not to make the final decision regarding CPR or to 'consent' to a DNAR decision as this authority does not exist under current Irish law. The purpose of these discussions is to help the senior clinical decision maker make the most appropriate decision having regard to the goal and preference of the person.

4.2 DNAR decisions and COVID-19

There should be no discrimination for or against persons who have or are suspected to have COVID-19 in relation to DNAR decisions. Individualised care is at the heart of good clinical practice. The pandemic does not justify any HCW deviating from that approach by making DNAR decisions on a group basis. Such a decision would be contrary to all guidance and human rights principles.

4.3 DNAR decisions and intensive care unit (ICU) admission

As a general rule, a decision not to attempt CPR applies only to CPR. A DNAR decision does not mean that other interventions such as oxygen support or mechanical ventilation will not be provided.

Other decisions may impact upon decisions about CPR. For example, if, due to their medical condition and prognosis, admission to an intensive care unit (ICU), and interventions such as intubation and mechanical ventilation would not be appropriate, it may also not be appropriate to provide that patient with CPR should they suffer a cardiorespiratory arrest, since the required follow up management in the intensive care unit would not be available[6]. This should be explained to the person (or those close to the person).

Decisions regarding the clinical appropriateness of admission to ICU are primarily a matter for intensive care doctors who have expertise in making such decisions. If a clinical deterioration is anticipated, it is helpful if the senior clinical decision maker caring for, and familiar with, the person and their condition and goals and preferences discusses the possible appropriateness of ICU with the relevant intensive clinicians to inform advance care planning and decision-making.

4.4 What information do people require about CPR?

People's preferences for or against CPR are often related to perceptions of the likelihood of success of this intervention. Many people overestimate the effectiveness of CPR and misunderstand the harms it can inflict. The success rate of CPR is especially poor in those with severe acute non-cardiac illness or those with multiple chronic illnesses or those who suffer a cardiorespiratory arrest outside of hospital. In particular, CPR is not a treatment for what has been termed 'ordinary dying'.[7]

[6] In such circumstances, it may be warranted to carry out a limited form of resuscitation, for example to convert a shockable rhythm.

[7] Launer J. *Reducing futile attempts at resuscitation*. Postgraduate medical journal. 2017 Apr 1;93(1098):239-40.

It is important that people are informed of the likelihood of a successful outcome in their individual circumstances. This should be explained sensitively but honestly to the person (or those close to the person) in language they can understand. “Successful” means more than survival: it includes consideration of possible prolonged care in the ICU after CPR and the potential for, perhaps permanent, significant functional and cognitive decline for some people.

4.5 Situations where a DNAR decision may be indicated

If a person with decision-making capacity refuses CPR, this should be respected, irrespective of whether it may seem a wise decision or not, and a DNAR decision documented. Similarly, if a person lacking decision-making capacity has a valid and applicable[8] advance healthcare directive refusing CPR, this should also be respected and a DNAR decision documented.

When a person lacks decision-making capacity, and does not have a valid and applicable advance healthcare directive, but those close to the person with knowledge of their previously expressed goals and preferences consider that he or she would not want CPR, a DNAR decision should be documented by the senior clinical decision maker if clinically appropriate.

In some circumstances, the senior clinical decision maker may judge that the harms of CPR outweigh the potential benefits and that a DNAR decision is appropriate. He or she should explain this to the person and seek his or her views[9].

Some people may be so unwell that death may be imminent and unavoidable and/or a cardiorespiratory arrest would represent the terminal event in their illness or decline. In such circumstances, a DNAR decision is necessary as CPR would not be clinically indicated but may cause harm to the person and increase their suffering. This should be explained sensitively but honestly to the person (or those close to the person). They should be helped to understand the severity of their condition, the inappropriateness of CPR and that a DNAR decision is necessary.[10] It should be emphasised that a DNAR decision in these circumstances does not equate to “doing nothing” and that all other appropriate care will be provided. This may include, for example, where clinically indicated provision of intravenous fluids, antibiotics, oxygen, admission to hospital or treatment in an intensive care unit, as well as palliative care.

[8] An advance healthcare directive is valid if made voluntarily at a time when the directive maker had the necessary decision-making capacity to do so. An advance healthcare directive refusing CPR is applicable if the directive-maker no longer has the decision-making capacity to give or refuse consent to CPR, the circumstances in which the advance healthcare is to apply are materially the same and the directive contains a statement that it is to apply even if the directive-maker’s life is at risk as a result.

[9] This requirement to inform the person (or those close to the person) departs from the HSE National Consent Policy and reflects the interpretation of the European Convention on Human Rights set out in *R (Tracey) v Cambridge University NHS Foundation Trust* [2014] EWCA Civ 822 which may reasonably be expected to apply in Ireland.

[10] As per the above footnote.

4.6 When the senior clinical decision makers and person (or those close to the person) disagree about the balance of benefits and risks of CPR

Many disagreements result from miscommunication and misunderstandings e.g. some individuals hold unrealistic expectations in respect of the likely success rate of CPR while some HCWs underestimate or overestimate the acceptability of the current or predicted future quality of life of the individual to the individual themselves. In many such cases, continued discussion will lead to agreement, and an ultimate decision should be deferred pending further discussion. If disagreement persists, a second, independent opinion from a senior colleague should be sought.

There is no obligation to provide a medical or surgical treatment, including CPR, if it is not clinically indicated[11]. Rarely, if efforts at resolution of disagreements have proven unsuccessful and there is agreement from two senior clinical decision makers that CPR is not clinically indicated and may cause harm to the person and increase his or her suffering, a DNAR decision should be made and documented even if the person (or those close to him or her) does not agree. The person must be informed, and the reasons behind this decision should be carefully recorded.

If efforts at resolution of disagreements have proven unsuccessful and there is genuine uncertainty as to the balance of risks and benefits for the person or, in the case of the person who lacks decision-making capacity, as to what the person's own wishes and preferences would have been, it may be necessary to consider obtaining legal advice or to have recourse to the courts.

4.7 Reviewing a DNAR decision

Some DNAR decisions are made in the context of a severe acute illness. Such decisions should be kept under review, especially if the person's clinical condition, including their ability to express their own goals and preferences, improves significantly. In some cases, it may be helpful to put down a date for review of the decision although that should not preclude earlier reconsideration.

Other DNAR decisions are made because of severe chronic diseases or where a person is approaching the end of life. These circumstances are unlikely to change and it is not necessary that such DNAR decisions are reviewed unless the person wishes and indicates this.

5. Performance of CPR during the COVID-19 outbreak

If CPR is performed on people with COVID-19, there is the potential for HCWs to be exposed to bodily fluids, and for some procedures (e.g. chest compressions, tracheal intubation or ventilation) to generate an infectious aerosol. In those circumstances, CPR

[11] National Consent Policy Part 4, 6.1

should not be commenced without the appropriate PPE recommended in national guidelines[12]. This may cause a delay of some minutes to starting CPR and may lead to worse outcomes from CPR[13].

In the interest of HCW safety, people with known and with suspected (e.g. awaiting swab results) COVID-19 must be treated alike. In some units, for example, in residential care facilities, evidence of general widespread transmission may mean that all occupants need to be treated as potentially positive for COVID-19.

5.1 CPR decisions when there are inadequate stocks of PPE available

Ethical Considerations for PPE Use by Health Care Workers in a Pandemic notes that[14]:

> "*HCWs may be faced with a situation where a Covid-positive patient requires an intervention, and where HSE guidance indicates that use of PPE is necessary, but where there are inadequate stocks of PPE available"*

It is acknowledged that different procedures involve different levels of risk, and that assessment of the relative risk/benefit ratios needs to be taken on a case-by-case basis by the HCW faced with the situation in question. Factors to be taken into account are:

- The acuity of the needs of the patient;
- Probability, and intensity, of individual HCW's exposure to Covid-19;
- Any professional guidelines issued on the particular intervention relevant to the current circumstances;
- Alternative possibilities of treatment that do not create the same level of exposure;
- The possibility of delaying the particular treatment until a time when PPE is available;
- The degree of risk being undertaken by individual HCWs;
- The personal situation of each HCW, for example, on the basis of a pre-existing condition or other vulnerability.

While every effort is being made to address the issue of inadequate stocks of PPE by the HSE, this issue may arise in some limited contexts including CPR. If a cardiorespiratory arrest occurs in these circumstances and there is no prior DNAR, the likelihood of success from CPR (see 4.2), and the degree of risk to a HCW performing CPR need to be considered. If the risk to a HCW is significant in the absence of appropriate PPE, it is acceptable for him or her not to initiate CPR while awaiting assistance or advice, for example

[12] https://www.gov.ie/en/publication/58d3de-ethical-considerations-for-ppe-use-by-health-care-workers-in-a-pande/
[13] https://hse.drsteevenslibrary.ie/c.php?g=679077&p=4846207
[14] https://www.gov.ie/en/publication/58d3de-ethical-considerations-for-ppe-use-by-health-care-workers-in-a-pande/

from the emergency services. HCW's making such decisions, often in an emergency and under great pressure, should receive the support of colleagues and managers.

5.2 Duration of resuscitation

The extent and/or duration of the CPR attempt should be based on the clinical circumstances of the arrest, the progress of the resuscitation attempt and balancing the risks and benefits of continuing CPR. In circumstances where initial resuscitative efforts have failed to restore circulation, it may become apparent that the likelihood of a successful outcome is very low, and termination of CPR becomes appropriate. These include some out of hospital cardiopulmonary arrests especially those that are unwitnessed or where the person has a non-shockable rhythm, (asystole and pulseless electrical activity), or, a shockable rhythm that does not respond to defibrillation.[15] Consultation, even remotely, with a doctor or with the emergency service, may assist in decision making in some cases.

6. Special considerations in out of hospital cardiorespiratory arrests[16]

The same approach to decision making, including making advance care plans, applies in all settings.

In the context of a COVID-19 outbreak that has particularly affected residential care facilities, it is especially important that advance care plans and decisions about what interventions would be appropriate if there were a deterioration in the person's condition are made, and if possible and appropriate updated, for all residents in order to ensure that they do not receive inappropriate or harmful treatment.

Out of hospital cardiorespiratory arrests present particular challenges to HCWs who encounter them while performing their duties especially if they occur unexpectedly and there is no known advance plan or DNAR decision and no quick access to medical assistance and advice. Many out of hospital arrests occur in residential care facilities or other healthcare facilities. If an emergency such as a cardiorespiratory arrest does occur in such a setting, and no prior decision not to intervene has been made, the general principle is that service users should call the emergency services and provide whatever care they can in the meantime.

Rarely, as is noted in the National Consent Policy (6.4): '*there will be some individuals for whom no formal DNAR decision has been made, but where attempting CPR is clearly inappropriate because death is imminent and unavoidable, for example, in the final stages of*

[15] Out of Hospital Cardiorespiratory arrest Register (OHCAR). https://www.nuigalway.ie/ohcar/

[16] We are grateful to Siobhán Masterson, Martin Quinn and Professor Andrew Murphy of the Out of Hospital Cardiac Arrest Register (OHCAR) for providing updated analyses of the outcomes following out of hospital cardiac arrests.

a terminal illness. In these circumstances, it is reasonable for healthcare professionals not to commence CPR'.

7. Dissemination of advance care plans and DNAR decisions

If an advance care plan or DNAR decision is made, it is important that procedures are in place locally to ensure that these are complied with in the event of a cardiorespiratory arrest. This will allow staff who may not be familiar with the person to rapidly determine the most appropriate care for the person in an emergency.

An agreed local procedure is also required to ensure an advance care plan or DNAR decision made in one setting and intended to apply in another setting can be communicated if the person moves to a new setting, and the senior clinical decision maker for that person should make every effort to ensure that this procedure is followed[17]. For DNAR decisions, this requires that staff in the second setting are aware of the DNAR decision and can be confident that it was made appropriately. This would require, at a minimum, information on who had made the decision, why, whether the person had been involved (and if not, why), whether it was signed and witnessed and whether a review was envisaged. If the person has capacity, they should be asked if their wishes have changed.

8. Conclusion

The COVID-19 pandemic presents some new challenges in making advance care plans and in cardiopulmonary resuscitation decision-making. These can be met using the fundamental principles of good clinical practice, existing guidance and recent new COVID-10 specific guidance. By doing so this will help to ensure that the people who use our services remain central to the decisions about their healthcare and treatment choices and HCW's will be supported in carrying out these decisions.

[17] https://www.hse.ie/eng/services/publications/clinical-strategy-and-programmes/national-rapid-discharge-guidance-for-patients-who-wish-to-die-at-home.pdf

Appendix 1 – Group Membership

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