HA Guidelines on Do-Not-Attempt Cardiopulmonary Resuscitation (DNACPR)

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EXECUTIVE SUMMARY

About Cardiopulmonary Resuscitation (CPR)

CPR may represent the opportunity for life when cardiac arrest occurs. However, many factors would impact the CPR outcome, the underlying medical condition of the arrest victim being the key factor. Long term neurologic impairment in CPR survivors is common. The benefits of CPR must be weighed against the potential burdens to the patient. This benefits-versus-burdens consideration of CPR is not solely a clinical decision and must involve consideration of the patient's best interests including their known or likely wishes.

About "Do Not Attempt CPR" (DNACPR)

DNACPR is an elective decision not to perform CPR, made in advance, when cardiac arrest is anticipated and CPR is against the wish of the patient or otherwise not in the best interests of the patient. This should be considered when cardiopulmonary arrest is likely in the foreseeable future, and there is indication that CPR is against the patient's wish or not in the patient's best interests. DNACPR does not automatically imply forgoing other life-sustaining treatments.

Ethical Framework in DNACPR Decision-Making

The ethical framework of this set of guidelines is drawn up in accordance with Section 34 of the Code of Professional Conduct (Annex 1) of MCHK, which encompasses respecting the view of the patient and the family, the principle of futility of treatment and the best interests principle. The principle of futility is grounded on the best interests principle. In most clinical situations, the judgment of futility involves balancing the benefits and burdens of the treatment towards the patient, and asking the question of whether the treatment, though potentially life-sustaining, is really in the best interests of the patient. Since burdens and benefits may involve quality-of-life considerations and can be value-laden, a consensus-building process between the healthcare team and the patient and family is recommended.

No healthcare professional is obliged to provide medical treatment not in the patient's best interests.

DNACPR Decision-Making Process

For a mentally competent adult patient, the patient's informed decision should be respected.

For an incompetent adult patient with a valid and applicable advance directive (AD) with a refusal of CPR, the AD must be respected.

For an incompetent adult patient without a valid and applicable AD, the healthcare team should build consensus with the family as to whether it is in the best interests of the patient for CPR to be attempted or not, taking into account the patient's prior values and preferences.

For a minor, the healthcare team should build consensus with the parents and, where appropriate, the minor as to whether it is in the best interests of the minor to attempt or not to attempt CPR.

In clearly futile cases, to avoid causing unnecessary psychological distress to the patient and the family, the healthcare team needs to conduct the communication process with sensitivity. The communication process is not to ask the patient and family members to make a decision on CPR, but to provide clinical information for the patient and family members to understand that CPR is a poor treatment option.

If an incompetent adult patient has no family members, a DNACPR decision cannot be made, unless the case is clearly futile.

Communication

One should adopt an open and empathetic attitude, and a step-wise approach using easy-to-understand terms. DNACPR discussions should preferably be led or supervised, whenever practicable, by the clinician supervising the healthcare team.

If a competent adult patient is not prepared to discuss about future care, the healthcare team should respect patient's wish. Unless the patient refuses information, the healthcare team should not withhold from the patient information necessary for making decisions even if asked by family members of the patient to do so. Normally, a DNACPR decision should not be made until after discussion with a mentally competent adult patient.

When there are conflicts, the doctor should explore the underlying reasons, align expectations and clarify any misconceptions or misunderstandings. The patient and the family cannot insist on treatment that the doctor deems inappropriate. Disagreements should be resolved by further communication. One may seek advice from a more experienced colleague, or hold a case conference. If there is still significant disagreement, the doctor could consult the local hospital/cluster clinical ethics committee or seek legal advice. Normally, before consensus is reached, a DNACPR decision should not be made in advance.

DNACPR Recommendation for Non-Hospitalized Patients with an Advance Care Plan (ACP) or AD

A DNACPR recommendation may sometimes be appropriate for seriously ill non-hospitalized patients, but **the scope of the DNACPR recommendation should be limited to:**

(a) Adults with a valid and applicable AD with a refusal of CPR who are suffering from:

- terminal illness,
- irreversible coma or persistent vegetative state,
- other end-stage irreversible life limiting condition.

(b) The following categories of minors or incompetent adults without an AD, with a DNACPR decision made through an explicit ACP:

- terminal illness,
- irreversible coma or persistent vegetative state,
- other end-stage irreversible life limiting condition.

For a mentally competent terminally ill adult whose advance decision is limited to CPR only, a short AD form specifically designed for this category of patients could be used.

DNACPR recommendation for the receiving team: As the receiving healthcare team may not have participated in the prior decision-making process, the DNACPR form for non-hospitalized patients is not a DNACPR instruction. For an adult with an AD, the DNACPR form certifies that the AD is valid and that patient falls into the clinical condition specified in the AD. For a minor or a mentally incompetent adult with an ACP, the DNACPR form certifies the decision of the original healthcare team and the parent/family. Before withholding CPR, the receiving healthcare team attending to the patient should ascertain that the decision to withhold CPR remains valid and unchanged, and that this patient's condition when presented to the team falls within the DNACPR form. If in doubt (e.g. whether or not CPR is still in this patient's best interests), or if foul play, accident or untoward event is suspected, CPR should be given to the patient.

DNACPR in Minors (Minors refer to < 18 years of age)

Clinical decisions relating to minors should be taken within a supportive partnership involving patients, their parents (if no parents, other family members) and the healthcare team. A DNACPR decision in respect of a minor, who is mature enough as to have sufficient understanding and intelligence to understand a DNACPR decision should involve both the minor and the parents. If the minor and/or the parents do not want CPR to be attempted, but the healthcare team considers that it is in the minor's best interests to give CPR, legal advice should be sought. However, if there are doubts whether the potential benefits outweigh the burdens, the views of the minor and the parents should be taken into consideration. Parents cannot require doctors to provide treatment contrary to their professional judgment, but doctors should try to accommodate parents' wishes where there is genuine uncertainty about the minor's best interests.

Withholding CPR in paediatric patients should follow the consideration of futility, both in its strictest sense of physiological futility and in the broader sense of futility involving quality-of-life considerations. In situations that the minor and/or family feel that in the face of progressive and irreversible illness, further treatment is more than can be borne, withholding CPR may be considered.

Safeguards

Presumption in favour of attempting CPR: Where a DNACPR decision has not been made in advance, and the patient has not expressed a refusal of CPR, CPR should be attempted, unless there is clear evidence that CPR would not be successful. Even when a DNACPR decision is established, if the cardiopulmonary arrest is from a potentially reversible cause such as choking, induction of anaesthesia, anaphylaxis or blocked tracheostomy tube, CPR may be appropriate unless the patient has specifically refused intervention in these circumstances.

Level of competency of doctors making DNACPR decisions: The DNACPR order for hospitalized patients is normally made or endorsed by a doctor of specialist grade. In the following situations, the direct involvement of 2 registered doctors, one of whom being a specialist, is mandatory:

- the patient is incompetent and has no family members;
- making a DNACPR recommendation for non-hospitalized patients.

If a patient already has a valid DNACPR form for non-hospitalized patients, an in-patient DNACPR decision could be made by one non-specialist doctor in appropriate circumstances.

Standardized DNACPR forms: This is mandatory, with separate forms for hospitalized (Appendix 2) and non-hospitalized (Appendix 1) patients.

Effective period of a DNACPR decision: A DNACPR order for hospitalized patients will be automatically invalidated on discharge. A DNACPR recommendation for non-hospitalized patients would be automatically invalidated if it is not endorsed within the specified review period.

Education and training, evaluation and audits: The hospital should have these systems in place.

1. Introduction

1.1 Background

Cardiopulmonary resuscitation (CPR) may represent the opportunity for life when cardiac arrest occurs. However, in a patient with an advanced irreversible illness, CPR may be futile[i] and against the patient's wish. Whether CPR should be withheld in such cases involves complex ethical considerations, made in advance when cardiac arrest is anticipated. This set of guidelines identifies the key ethical and legal issues in Do-Not-Attempt Cardiopulmonary Resuscitation (DNACPR) decisions, anchoring on Section 34 on Care of the terminally ill (Annex 1) in the Code of Professional Conduct of the Medical Council of Hong Kong (MCHK)[ii] and taking into consideration the existing HA guidelines on advance directives (AD) and on withholding and withdrawal of life-sustaining treatment. [1, 2] In using the framework and the basic principles of this set of guidelines for making DNACPR decisions, the healthcare team should also be aware that DNACPR decisions are considered on individual basis according to different clinical and personal circumstances.

1.2 Presumption in favour of attempting CPR

When a DNACPR decision has not been made in advance, and the patient has not expressed a refusal of CPR, the presumption should be to attempt CPR, unless there is clear evidence that CPR would not be successful.

1.3 Objectives and scope

This set of Guidelines is:

1.3.1 To update, expand and replace the 1998 Guidelines on In-Hospital Resuscitation Decision of the Hospital Authority (HA). (Please refer to Q&A Q2)

1.3.2 To uphold the commitment of the HA in providing quality patient care appropriate to treatment goals along the disease trajectory, and to safeguard the rights of patients in refusal of CPR in anticipation of end-of-life (EOL);

1.3.3 To provide the legal and ethical framework in DNACPR decisions;

1.3.4 To provide the evidence base in the clinical assessment of the chances of success and overall benefits of CPR;

1.3.5 To provide guidance to the consensus building approach in communication with the patient, family or guardian during the decision-making process;

1.3.6 To standardize the forms for documentation and communication of the DNACPR decisions.

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[i] The term "futility" will be discussed in more detail in ensuing sections.

[ii] Although Section 34 of the MCHK Code of Professional Conduct is limited to the care of the terminally ill, the ethical principles and approaches on withholding CPR laid down in this document apply also to other seriously ill patients which do not fall into the strict definition of the terminally ill.

2. Ethical Framework in DNACPR Decision Making

2.1 The ethical framework of this set of guidelines is drawn up in accordance with Section 34 of the Code of Professional Conduct (Annex 1) of MCHK, which encompasses respecting the view of the patient and the family, the principle of futility of treatment and the best interests principle.

2.2 Respecting the view of the patient is required under the principle of autonomy. Respecting the view of the family is important particularly in the consideration of the best interests of an incompetent patient, to see if family members have any information about the wishes, values and beliefs of the patient. In this set of Guidelines, unless the term "guardian" is used, the term "family" or "family members" denotes not only the family in the traditional sense, but also the guardian and persons close to or significant to the patient.

2.3 The principle of futility of treatment is grounded on the best interests principle. As discussed in the HA Guidelines on Life-Sustaining Treatment in the Terminally Ill, [2] other than physiologic futility in its strict sense, the judgment of futility involves balancing the benefits and burdens of the treatment towards the patient, and asking the question of whether the treatment, though potentially life-sustaining, is really in the best interests of the patient. Since burdens and benefits may involve quality-of-life considerations and can be value-laden, a consensus-building process between the healthcare team and the patient and family is recommended.

2.4 No healthcare professional is obliged to provide medical treatment which is not in the best interests of the patient.

2.5 An outline of the ethical principles of patient autonomy and best interests is at Annex 2. [3]

3. Some Legal Issues on DNACPR Decisions

3.1 Incompetent adult patients

3.1.1 An adult patient who cannot understand the general nature and effect of a medical treatment is mentally incompetent to consent to or refuse the medical treatment.

3.1.2 A guardian may be appointed for a mentally incompetent adult patient under the Mental Health Ordinance. The guardian has the power to consent or not consent to a medical treatment for the mentally incompetent adult patient. The guardian, in considering whether or not to consent, must ensure that the mentally incompetent adult patient is not deprived of medical treatment because of mental incapacity and that the medical treatment is in the best interests of the patient.

3.2 Best interests principle

3.2.1 At common law, the best interests of a patient are not limited to best medical interests but encompass medical, emotional and all other welfare issues. What are the best interests of a patient cannot be precisely and exhaustively defined.

3.2.2 Under the Mental Health Ordinance, "in the best interests", in relation to the carrying out of medical treatment in respect of a mentally incompetent patient, means in the best interests of that patient in order to:

- save the life of the patient;
- prevent damage or deterioration to the physical or mental health and well-being of that patient; or
- bring about an improvement in the physical or mental health and well-being of that patient.

It has been decided by the court that "well-being" in the above definition is a broad, inclusive term which concurs with the meaning of the best interests of a patient at common law.

4. About CPR

4.1 What is CPR?

Cardiopulmonary resuscitation (CPR) is a relatively invasive medical therapy to support ventilation and circulation when cardiac arrest occurs. CPR buys time for the vital organs to be supported, and for the cardiac function to be restored if possible. At the most basic level, CPR includes chest compression and assisted breathing. In a more equipped setting, the following treatments may variably be included: attempted defibrillation with electric shocks, injection of drugs and artificial ventilation of the lungs. [4]

4.2 CPR outcome[iii]

4.2.1 CPR may represent the opportunity for life when cardiac arrest occurs. CPR may restore life and health for some survivors but for most CPR recipients the chance for survival to discharge and for full functional recovery is small.

4.2.2 CPR outcome is usually expressed in terms of

- Immediate survival (referring to a successful CPR with post-CPR survival lasting for an hour or more),
- Survival to hospital discharge, and
- The degree of neurological impairment in long-term survivors.

[iii] The figures quoted at this section and at section 4.3 are for reference only. These may change with time and new treatment, and may vary in different clinical situations.

4.2.3 Many factors would impact the CPR outcome, the underlying medical condition of the arrest victim being the key factor (see section 4.2.4 below). Other factors include the location and presenting rhythm of the cardiac arrest, with the overall likelihood of survival to discharge being 1 in 8 for in-hospital CPR, 1 in 12 for out-of-hospital CPR, 1 in 10 for asystole/pulseless electrical activity, and 1 in 3 for ventricular fibrillation/pulseless ventricular tachycardia, as shown in Table 1. [5,6,7]

4.2.4 Patients suffering from malignancy, chronic renal disease, fulminant sepsis, or dementia seem to do poorly with CPR as shown in Table 2. [6,8-10]

4.3 Sequelae after having immediately survived CPR

4.3.1 Cardiopulmonary instability following CPR

The large discrepancy between immediate survival of 23.8-44% and survival to discharge of 7.6-17% reflects the complexity of the medical condition. Post-CPR, many of these patients are in shock and respiratory insufficiency requiring prolonged cardiac support and mechanical ventilation, the outcome of which could still be fatal.

4.3.2 Anoxic and reperfusion brain injury

Neurologic sequelae arising from cardiac arrest are also a key limiting factor in sustaining survival to discharge. Irreversible anoxic brain damage will ensue after a prolonged period of cerebral anoxia. [11] Further brain injury can arise from “post-resuscitation syndrome”, a syndrome in which there is unstable vascular tone, cerebral edema, calcium fluxes, etc. Post-CPR, serious neurologic damage can be manifested at the bedside by difficult-to-control convulsive activities and generalized myoclonus, and by the findings of persistent coma or brainstem dysfunction.

4.3.3 Longer term neurologic impairment in CPR survivors was reported in an international study conducted in 20 hospitals across 8 countries published in 1999: among the 6-month survivors of CPR, 23% with good neurologic recovery, 9% awakened without good neurologic recovery, and 66% never regained consciousness. [12]

4.3.4 Other bodily injuries from CPR

They include rib and sternal fracture(s), and injury to internal organs. In a review of studies on bodily injuries after CPR, incidences of rib fractures range from 13 to 97%, and of sternal fractures from 1 to 43%. [13]

4.4 Benefits and burdens of CPR as a treatment option

4.4.1 Treatment decisions on CPR should be based on benefits-versus-burdens consideration, which is not solely a clinical decision, but also involves consideration of the patient's best interests, including their known or likely wishes. Hence discussion with the patient, or the family members of the patient who lacks capacity, is crucial in such consideration.

4.4.2 Factors to consider in weighing benefits versus burdens of CPR include:

- The likely clinical outcome, including the likelihood of successfully re-starting the patient's heart and breathing for a sustained period, and the level of recovery that can realistically be expected after successful CPR;
- The patient's known or ascertainable wishes, including information about previously expressed views, beliefs and values;
- The patient's human rights, including the right to live and the right to be free from degrading treatment;
- The likelihood of the patient experiencing severe unmanageable pain or suffering;
- The level of awareness the patient has of his/her existence and surroundings.

4.4.3 Best interests must be considered according to the individual circumstances of each patient. Decisions must not be made solely on factors such as the patient's age or disability, or solely on a professional's subjective view of the patient's quality of life.

4.4.4 When a patient is in the final stage of an incurable illness and death is expected within a few days, CPR is very unlikely to be clinically successful. Burdens considerations may show that CPR may prolong or increase suffering and subject the patient to traumatic and undignified death. The patient and the family may hence choose natural death without CPR.

5. About DNACPR

5.1 What is DNACPR?

The Do-Not-Attempt Cardiopulmonary Resuscitation (DNACPR) decision refers to the elective decision not to perform CPR, made in advance, when cardiopulmonary arrest is anticipated and CPR is against the wish of the patient or otherwise not in the best interests of the patient. DNACPR only means CPR not to be initiated in the event of cardiopulmonary arrest. Whether other life sustaining treatments are to be implemented should be individually considered, and may be specified. [2] (Please refer to Q&A Q1)

5.2 When to consider DNACPR?

5.2.1 The healthcare team usually considers DNACPR when the following situations are **concurrently** unfolding:

- The patient is suffering from a rapidly or gradually deteriorating clinical condition that renders cardiopulmonary arrest likely in the foreseeable future. These patients can be hospitalized patients or seriously ill non-hospitalized patients staying at home or long-term care institutions.
- There is indication that CPR is against the patient's wishes, or that CPR is not in the best interests of the patient.

5.2.2 If CPR has a good chance of success and has overall benefit to the patient, DNACPR is normally not a consideration.

6. DNACPR Decision-making Process

6.1 Considerations for the DNACPR decision-making process [14]

6.1.1 Benefits versus burdens considerations on CPR (please refer to section 4.4);

6.1.2 Mental capacity of the patient;

6.1.3 Any existing or prior indication of the patient's wishes on CPR.

6.2 Competent adult patient

6.2.1 If the patient is mentally competent, the healthcare team is to explain the benefits and burdens of CPR to the patient, and to explore the perspectives of the patient.

6.2.2 A mentally competent adult patient can refuse CPR as a personal choice because of personal values and preferences, even though the choice may seem eccentric or unwise. As long as the patient has been provided with reasonable and adequate information in weighing benefits against burdens, the patient's decision should be respected. With the agreement of the patient, the patient's decision not to receive CPR should be communicated to the family.

6.3 Incompetent adult patient with a valid and applicable AD

For patients with a valid and applicable AD with a refusal of CPR, the AD must be respected when the patient is mentally incompetent. For detailed guidance on AD, please refer to HA Guidance on Advance Directives. [1]

6.4 Incompetent adult patient without a valid and applicable AD

6.4.1 If the patient without a valid and applicable AD is mentally incompetent, the healthcare team is to explain the benefits and burdens of CPR to the family members, explore with the family members the values held by the patient, and his/her treatment preferences, and try to build consensus with the family as to whether it is in the best interests of the patient for CPR to be attempted or not.

6.4.2 Please refer to Section 7.7 on conflict resolution if consensus cannot be achieved.

6.5 Minor

6.5.1 The healthcare team should explain the benefits and burdens of CPR to the parents of the minor, and should understand from the parents the views of the minor if the minor has any views.

6.5.2 If the minor is mature enough as to have sufficient understanding and intelligence to understand a DNACPR decision, it may be appropriate for the healthcare team to discuss with the minor together with the parents.

6.5.3 The healthcare team should try to build consensus with the parents and, where appropriate, the minor as to whether it is in the best interests of the minor to attempt or not to attempt CPR.

6.5.4 Please refer to Section 10 with regard to other special points about minors.

6.5.5 Please refer to Section 7.7 on conflict resolution if consensus cannot be achieved.

6.6 Communication strategy for clearly futile cases

6.6.1 In some situations, the healthcare team may view that CPR is clearly futile. These may include a patient:

- who is having irreversible deterioration from acute illness or events despite active or intensive measures to treat him/her or to support his/her life in hospital;
- who is dying from a progressive irreversible life limiting illness or condition and has deteriorated to a point where death is imminent and inevitable even with continued therapy in hospital.

6.6.2 In such situations, to avoid causing unnecessary psychological distress to the patient and the family, the healthcare team needs to conduct the communication process with sensitivity. The communication process is not to ask the patient and family members to make a decision on CPR, but to provide clinical information for the patient and family members to understand that CPR is a poor treatment option. If the patient does not want to receive information or to continue discussion, the communication should not be forced.

6.7 Incompetent adult patient without family members

If an incompetent patient without a valid and applicable AD has no family members available, the healthcare team should defer the DNACPR decision as far as possible to wait till family members are available for discussion. If the patient has no family members, a DNACPR decision cannot be made, unless the case is clearly futile, but the direct involvement of 2 registered doctors, one of whom being a specialist, is mandatory in this decision-making.

7. Communication

7.1 Consensus building

In most situations, discussion of DNACPR should be a consensus building process with the patient/family.

7.2 Reminders to the healthcare team on important communication skills in leading a DNACPR discussion

7.2.1 Important attributes of the healthcare team which may facilitate communication with the participants of the DNACPR discussion:

- Adopt an open, sincere, and empathetic attitude and be a good listener.
- Be sensitive to emotions experienced by the participants of the DNACPR discussion, such as anxiety, fear, denial, anger or guilt.
- Avoid turning the discussion into an antagonistic situation.
- Use a step-wise approach in entering into a DNACPR discussion. Any first step to establish rapport with the patient and/or family members ahead of a DNACPR discussion would highly facilitate mutual understanding and consensus building during the subsequent DNACPR discussions.
- Use easy-to-understand terms during communication, realizing that there is often a significant knowledge and expectation gap between the healthcare team's understanding of the likelihood of success and the burdens of CPR and the patient and/or family's expectations.

7.2.2 While a DNACPR decision can be perceived by the patient and/or family members as a "life-versus-death" decision, the healthcare team should firmly clarify the concept of a DNACPR decision as a decision to allow natural death to occur without subjecting the patient to the burdens of CPR.

7.2.3 DNACPR discussions should preferably be led or supervised, whenever practicable, by the clinician supervising the healthcare team to enable a most effective, knowledge-based decision-making process. It is appropriate and wise to invite other members of the healthcare team, often the nurse, to be present during the discussion, who can serve as a witness of the process, facilitate the communication and provide emotional support.

7.2.4 Any significant discussion should be documented in the medical record, recording the salient points of the discussion that has taken place with the patient or the patient's family member(s) and the relationship to the patient.

7.3 Contents of communication should include but not be limited to the following aspects

7.3.1 The patient's condition in terms of diagnosis, extent of disease, prognosis, treatment options, chance of recovery, quality of life, and the chance of going into cardiopulmonary arrest;

7.3.2 What is CPR and DNACPR;

7.3.3 The projected outcome from CPR for the particular patient, the likely level of recovery expected should CPR be successful;

7.3.4 The benefits versus burdens considerations of CPR;

7.3.5 In the event of a successful CPR, the overall benefits/burdens and the appropriateness of other treatments such as prolonged artificial ventilation or other organ support;

7.3.6 The patient and family's expectations, values and preferences; and

7.3.7 What is next after a DNACPR decision? It is important to emphasize to the patient and/or the family members that the patient will not be abandoned: all appropriate treatment, including comfort care, would be provided.

7.4 Exploring the perspectives of a mentally competent adult patient who is towards end-of-life (EOL)

7.4.1 The patient's readiness for a discussion on EOL issues should be ascertained. Such a discussion should not be forced onto the patient against his/her wish.

7.4.2 If the patient is deemed to be ready for EOL discussions, the healthcare team should explore or discuss with the patient the following:

- Patient's wishes, beliefs or values that may be influencing the patient's preferences and decisions;
- Family members, or others close to the patient that the patient would like to be involved in decisions about his/her care;
- Advance directives or indication of preferences on CPR/DNACPR and other life-sustaining interventions;
- If appropriate, the patient's preferred place of care (and how this may affect the treatment options available);
- If appropriate, the patient's needs for religious, spiritual or personal support.

7.5 When a mentally competent adult patient does not want discussion

7.5.1 If a competent adult patient is not prepared to discuss about future care, or find the prospect of doing so too distressing, the healthcare team should respect the patient's wish and defer the discussion. The doctor should also make it clear that the patient can change his/her mind and seek further information at any time.

7.5.2 The healthcare team may consider measures to support the patient, such as inviting the patient's preferred family members or other close persons to participate in the discussion as well as involving other professionals for psychological support.

7.5.3 The doctor should record that the patient has declined relevant information.

7.5.4 Normally, a DNACPR decision should not be made until after discussion with a mentally competent adult patient. When a mentally competent adult patient does not want discussion, the view of the healthcare team and the family members on whether CPR is appropriate or not can be solicited and be documented in the medical record, but normally, a DNACPR decision has to

be left to the time when the patient becomes incompetent. (Please refer to Q&A Q10)

7.6 When others want information to be withheld from the mentally competent adult patient

7.6.1 Unless the patient refuses information, the healthcare team should not withhold from the patient information necessary for making decisions even if asked by family members of the patient to do so.

7.6.2 If there is worry that giving the information would cause serious psychological harm to the patient, the doctor should consider measures to support the patient, and disclose the information sensitively and step-by-step, taking into account how much the patient wishes to know.

7.7 Conflict management in DNACPR decision-making process

7.7.1 Disagreement or conflicts can be one of the following:

- A patient or the family members request for attempted resuscitation when clinicians feel that DNACPR would be the appropriate clinical decision;
- Family members of a mentally incompetent patient disagree with the prior wish of the patient for DNACPR.

7.7.2 The doctor should explore the underlying reasons, align expectations, and clarify any misconceptions or misunderstandings regarding:

- The confusion of active treatment with CPR;
- The worry about abandonment in case of DNACPR;
- Information about the nature of possible CPR interventions, the length of survival and level of recovery that one might realistically expect if the patient were successfully resuscitated.

7.7.3 Mentally competent adults may refuse treatment, but cannot insist on treatment that the doctor in charge of their care deems inappropriate. Similarly, the family cannot insist on treatment that the doctor in charge deems inappropriate.

7.7.4 If, after discussion, the doctor still considers that CPR would not be clinically appropriate, the doctor is not obliged to agree to attempt CPR in the circumstances envisaged. (Please refer to Q&A Q10)

7.7.5 In rare situations, while the doctor considers that CPR should be performed for a mentally incompetent patient or a minor, the family may disagree and consider that DNACPR is appropriate. The doctor should discuss with the family and review what is in the patient's best interests, taking into account the known wishes of the patient. The final decision whether CPR is appropriate or not is determined by whether it is in the patient's best interests.

7.7.6 Disagreements should be resolved if possible by further communication to clarify misconception or unrealistic expectation. A clinician experienced with handling difficult communication may be involved. One may consider involving an independent third party trusted by the family, seeking advice from a more experienced colleague, or holding a case conference. In working

towards a consensus, the doctor should take into account the different roles of those who are consulted.

7.7.7 If there is still significant disagreement not resolvable despite repeated communication, the doctor could take further steps to consult the local hospital/cluster clinical ethics committee, or seek legal advice including advice whether to apply to court for a decision.

7.7.8 Normally, before consensus is reached with a mentally competent adult or with the family of a mentally incompetent adult or a minor, a DNACPR decision should not be made in advance. The view of the healthcare team on whether CPR is appropriate or not can be documented in the medical record, to assist the team to make the judgment when the patient develops cardiac arrest. (Please refer to Q&A Q10)

7.7.9 Any significant discussion should be documented in the medical record, recording the salient points of the discussion that has taken place with the patient or the patient's family, their names, and the relationship to the patient. The presence of a witness during the discussion is strongly recommended and the identity of the witness should be documented in the medical record.

8. Advance Care Planning (ACP)

(For details, please refer to HA Guidelines on Advance Care Planning 2019)

8.1 What is ACP?

8.1.1 Advance care planning (ACP) refers to the *process of communication* among a patient with advanced progressive diseases, his/her health care providers, and his/her family members and caregivers regarding the kind of care that will be considered appropriate when the patient can no longer make those decisions. ACP is an overarching and preceding process for such decisions, based on the mentally competent adult patient's preferences and values, and the risks and benefits of individual treatment.

8.1.2 In this set of Guidelines, the term ACP refers not only to such a process for mentally competent adult patients. It also encompasses the process by which the family members and the health care providers make decisions for mentally incompetent and minor patients, based on the patient's best interests including his/her preferences and values, and the risks and benefits of individual treatment. [14]

8.1.3 ACP should be considered in suitable patients in anticipation of progressive deterioration, before death is imminent. ACP is an integral part of palliative care and should be promoted to a wider scope of patients with advanced progressive diseases. A DNACPR decision can be part of ACP.

8.2 What happens during ACP?

8.2.1 There should be lucid communication during the ACP process on the prognosis of the patient, the benefits and risks of various treatments involved, and the values and goals of the patient.

8.2.2 Treatments, including CPR, should be considered individually. Decisions, including DNACPR, should be made in accordance with patient's expressed wish and best interests.

8.3 What follows the ACP?

8.3.1 Apart from enhancing patient's autonomy, ACP also serves to strengthen relationship with the patient's loved ones and to relieve decision burden of caregivers.

8.3.2 At the end of ACP, the following, as may be applicable, are means to enable decisions to be followed through:

- Documentation in the medical records and an ACP form;
- Assigning a family member to be the key person for future consultation;
- Completing the DNACPR form for hospitalized patient or non-hospitalized patient;
- Completing an AD form.

8.3.3 HA Guidance for HA Clinicians on Advance Directives in Adults is available, and aims to assist HA clinicians in handling matters related to an AD. [1]

9. DNACPR Recommendation for Non-Hospitalized Patients with an Explicit ACP or AD

9.1 Scope and conditions

9.1.1 A decision that CPR is inappropriate may not be limited to in-patients. There could be seriously ill non-hospitalized patients staying at home or long-term care institutions, who have a high chance of deterioration, but CPR is not in the patient's best interests or is against the patient's wish. DNACPR may also be appropriate for these patients. For these patients, the ensuing specific safeguards are required for a DNACPR recommendation.

9.1.2 A DNACPR recommendation for non-hospitalized patients should be limited to:

9.1.2.1 Adults with a valid and applicable AD with a refusal of CPR who are suffering from (Please see the Guidance for HA Clinicians on Advance Directives in Adults and its appendices):

- terminal illness (Case 1)[iv],
- irreversible coma or persistent vegetative state (Case 2)[v],
- other end-stage irreversible life limiting condition (Case 3)[vi].

(Please refer to Q&A Q5 and Q7b)

9.1.2.2 The following categories of minors or incompetent adults without an AD, with a DNACPR decision made through an explicit ACP:

- terminal illness,
- irreversible coma or persistent vegetative state,
- other end-stage irreversible life limiting condition.

(Please refer to Q&A Q6 and Q7a)

9.1.3 For a mentally competent terminally ill adult whose advance decision is limited to CPR only, a short AD form specifically designed for this category of patients could be used. (Please see the Guidance for HA Clinicians on Advance Directives in Adults and its appendices)

9.2 The DNACPR form for non-hospitalized patients

9.2.1 A DNACPR form for non-hospitalized patients (Appendix 1) separate from the DNACPR form for hospitalized patients (Appendix 2) is used, with the objectives to:

- avoid mixing up with a DNACPR decision limited to a single in-patient episode,
- accommodate the special requirements for these special categories of non-hospitalized patients, and to
- serve as a DNACPR recommendation to the receiving healthcare team (refer to section 9.3 for details)

9.2.2 The form should be signed by 2 doctors, one of whom must be a specialist. The form may be signed in a non-hospitalized setting or in an in-patient setting before the patient is discharged.

[iv] The terminally ill are patients who suffer from advanced, progressive, and irreversible disease, and who fail to respond to curative therapy, having a short life expectancy in terms of days, weeks or a few months. [2]

[v] The persistent vegetative state means a condition caused by catastrophic brain damage whereby the patients have a permanent and irreversible lack of awareness of their surroundings and no ability to interact at any level with those around them. [3]

[vi] "Other end-stage irreversible life limiting condition" means suffering from an advanced, progressive, and irreversible condition not belonging to Case 1 or Case 2, but has reached the end-stage of the condition, limiting survival of the patient. Examples include:

(1) patents with end-stage renal failure, end-stage motor neuron disease, or end-stage chronic obstructive pulmonary disease who may not fall into the definition of terminal illness in Case 1, because their survival may be prolonged by dialysis or assisted ventilation, and

(2) patients with irreversible loss of major cerebral function and extremely poor functional status who do not fall into Case 2. (This means a condition caused by catastrophic or long term brain damage whereby the patients are bedridden and have little awareness of their surroundings and little ability to interact at any level with those around them, and the condition is irreversible).

9.2.3 For adults with an AD, the healthcare team should attach the DNACPR form to the AD after the DNACPR form is signed. (Please refer to Q&A Q8 and Q9)

9.2.4 For minors or incompetent adults without an AD, the family (or the parents of a minor) must sign on the DNACPR form. (Please refer to Q&A Q9)

9.2.5 The original DNACPR form is to be kept with the patient. The carer is advised to bring the form to the hospital when the patient is sent to the hospital, together with the AD form, if any. A copy of the form is kept in the medical record of the patient.

9.3 DNACPR recommendation for the receiving team

9.3.1 As the receiving healthcare team may not have participated in the prior decision-making process, the DNACPR form serves as a DNACPR recommendation only, instead of a DNACPR instruction.

9.3.2 For an adult with an AD with a refusal of CPR, the signing of the DNACPR form by the doctors certifies that the AD is valid and that patient falls into the clinical condition specified in the AD.

9.3.3 For a minor or an incompetent adult with an ACP, the signing of the DNACPR form certifies the decision of the original healthcare team and the parent/family.

9.3.4 Before withholding CPR, the receiving healthcare team attending to the patient should ascertain that the decision to withhold CPR remains valid and unchanged, and that the patient's condition when presented to the team falls within the DNACPR form. If in doubt (e.g. whether or not CPR is still in the patient's best interests), or if foul play, accident or untoward event is suspected, CPR should be given to the patient.

9.4 Review of the DNACPR form for non-hospitalized patients

The DNACPR form should be reviewed at least once every 12 months. The healthcare team may specify a shorter review period, if clinically appropriate. The form will be automatically invalidated if it is not reviewed and endorsed within the review period.

9.5 Flagging alert in CMS

When a patient signs an AD with a refusal of CPR, the healthcare team can proceed to flag an alert on AD in CMS. [1] Flagging alert has also been developed in CMS for a patient who has a completed DNACPR form for non-hospitalized patients. The flagging alert is not a substitute for the original DNACPR form kept by the patient. It only alerts the healthcare team that the DNACPR form has been signed.

10. DNACPR in Minors (Minors refer to < 18 years of age)

10.1 Ethical and legal considerations

10.1.1 Clinical decisions relating to minors should be taken within a supportive partnership involving patients, their parents (if no parents, other family members) and the healthcare team.

10.1.2 A DNACPR decision in respect of a minor, who is mature enough as to have sufficient understanding and intelligence to understand a DNACPR decision should involve both the minor and the parents. [15] If the competent minor and/or the parents do not want CPR to be attempted, but the healthcare team considers that it is in the minor's best interests to give CPR, legal advice should be sought. However, if there are doubts whether the potential benefits outweigh the burdens, the views of the minor and the parents should be taken into consideration.

10.1.3 Parents cannot require doctors to provide treatment contrary to their professional judgment, but doctors should try to accommodate parents' wishes where there is genuine uncertainty about the minor's best interests.

10.1.4 The local hospital/cluster clinical ethics committee may be consulted if necessary.

10.1.5 If legal advice is required, this should be sought in a timely manner.

10.2 Withholding CPR

10.2.1 Withholding CPR in paediatric patients should follow the consideration of futility, both in its strictest sense of physiological futility and in the broader sense of futility involving quality-of-life considerations.

10.2.2 In situations that the minor and/or family feel that in the face of progressive and irreversible illness, further treatment is more than can be borne, withholding CPR may be considered. [16]

11. Safeguards

11.1 Presumptions in favour of attempting CPR

11.1.1 Where a DNACPR decision has not been made in advance, and the patient has not expressed a refusal of CPR, CPR should be attempted, unless there is clear evidence that CPR would not be successful.

11.1.2 Some patients for whom a DNACPR decision has been established may develop cardiopulmonary arrest from a potentially reversible cause such as choking, induction of anaesthesia, anaphylaxis or blocked tracheostomy tube. In such situations CPR may be appropriate, while the reversible cause is treated, unless the patient has specifically refused intervention in these circumstances. [2, 14]

11.2 Level of competency of doctors making DNACPR decisions

11.2.1 The management of seriously ill patients involves many decision-making processes, in both diagnosis and treatment; a DNACPR decision is therefore not made in isolation, but an integral part of the whole management process.

11.2.2 In HA, a team approach is usually adopted in managing these hospitalized patients and junior doctors are supervised by senior doctors or specialists. The DNACPR order for hospitalized patients is normally made or endorsed by a doctor of specialist grade. (Please refer to Q&A Q3)

11.2.3 However, in the following situations, the direct involvement of 2 registered doctors, one of whom being a specialist, is mandatory in the decision-making:

- the patient is incompetent and has no family members;
- making a DNACPR recommendation for non-hospitalized patients.

11.2.4 For patients transferred from one hospital to another with an in-patient DNACPR order, a decision to continue the in-patient DNACPR order may be made by one non-specialist doctor in the receiving hospital if this is considered appropriate. (Please refer to Q&A Q4)

11.2.5 If a patient admitted to the hospital already has a valid "DNACPR form for non-hospitalized patients", one non-specialist doctor may make an in-patient DNACPR decision, as long as the AD or ACP remains valid and unchanged, and the clinical condition falls within the circumstances under the AD or ACP. (Please refer to Q&A Q4)

11.2.6 In an emergency situation when a specialist is not on site and cardiac arrest is likely to occur within a short period in a patient without a valid "DNACPR form for non-hospitalized patients", an on-site higher specialist trainee approved by COS may make a DNACPR decision if and only if:

a) the patient has a terminal illness as defined at footnote (iv) of this set of Guidelines, and the terminal condition is previously known to HA; or

b) the patient has other end-stage illness and there is documented preference of the patient (if competent) and the family against CPR in respect of the same end-stage illness, and the preference is previously known to HA. Examples of documented preference against CPR include DNACPR orders in previous admissions, a valid AD refusing CPR, and a medical note or ACP form documenting preference against CPR in an ACP process.

In both situations, there should be clear consensus with the patient (if competent) and the family on the DNACPR decision.

On the subject of DNACPR, the COS is ultimately accountable for the clinical governance of his/her department. When there is operational need, the COS should assess carefully the knowledge and experience of the higher specialist trainees of his/her department before delegating the authority to any of them to

make a DNACPR decision in the stipulated group of patients under the stipulated conditions. The department should keep an updated list of approved higher specialist trainees for this. There should be regular audit for such DNACPR decisions.

11.3 Standardized DNACPR forms

The adoption of the standardized DNACPR forms for HA patients is mandatory, with separate forms for hospitalized (Appendix 2) and non-hospitalized (Appendix 1) patients to avoid confusion and ambiguity and to facilitate communication and audit.

11.4 Effective period and review of a DNACPR decision

11.4.1 DNACPR order for hospitalized patients:

- It is episode based and will be automatically invalidated when the patient is discharged from the hospital. The in-patient DNACPR order will be temporarily suspended during home leave or during transportation from one hospital to another.
- When a patient is transferred from one hospital to another hospital for in-patient stay, the DNACPR order must be reviewed by the receiving team in order to reinstate it. If the DNACPR order is considered appropriate, the receiving doctor should sign a new DNACPR form. It may not be necessary to go through the whole process of discussion with the patient and the family like a new case if the existing DNACPR order is considered appropriate.
- The healthcare team should review the DNACPR decision at regular intervals appropriate to the care. It should also be reviewed in response to changes in clinical condition or circumstances, such as a need to undergo anaesthesia, transfer from one department to another, etc. A DNACPR decision made by the on call doctors at night should be reviewed by a specialist of the attending team the following day. When the DNACPR decision is reversed, the form should be crossed out clearly, and the decision should be clearly documented and communicated to avoid inadvertent omission of CPR.

11.4.2 DNACPR recommendation for non-hospitalized patients:

It would be automatically invalidated if it is not reviewed and endorsed within the review period (please see section 9.4).

11.5 Education and training

The hospital should have an education system in place, for their staff to understand the principles of decision-making regarding DNACPR, and to acquire the appropriate communication skills and attitudes.

11.6 Evaluation and audits

The hospital should have in place an audit system on the appropriateness of DNACPR decisions.

Tables

Table 1: CPR immediate survival and survival to discharge

	Immediate survival (%)	**Survival to discharge (%)**
In-hospital CPR	41-44%	13-17%
Out-of hospital CPR	23.8%	7.6%
VF/Pulseless VT Arrest	-	34%
Asystole/PEA	-	10%

Table 2: CPR outcome in patients with medical comorbidities

	CPR outcome
Cancer patient [8]	**Survival to discharge**
Overall	6.7%
General ward patients	10.1%
ICU patients	2.2%
Localized disease	9.1%
Metastatic disease	7.8%
Dialysis patient [9]	
Survival to discharge	14%
6-month survival	3%
Others conditions [5, 9]	**Odds ratio for failure to Survive to discharge**
Sepsis on the day prior to CPR	31.3 [6]
Metastatic cancer	3.9
Dementia	3.1
Impaired renal function (Serum creatinine > 1.5	2.2
Dependency on ADL	3.2 – 7.0 [10]
Altered mental status	2.2
Age > 70, 75, 80 yrs	1.5, 2.8, 2.7

References

1. Hospital Authority of Hong Kong. HA guidance for HA clinicians on advance directives in adults. Hong Kong: Hospital Authority; 2010/2014/2016.
2. Hospital Authority of Hong Kong. HA guidelines on life-sustaining treatment in the terminally ill. Hong Kong: Hospital Authority; 2002/2015.
3. Department for Constitutional Affairs of UK. Mental Capacity Act 2005: Code of Practice. London: The Stationery Office; 2007. Available at: http://webarchive.nationalarchives.gov.uk/+/http://www.dca.gov.uk/legal-policy/mental-capacity/mca-cp.pdf.
4. Resuscitation Council of UK. Resuscitation guidelines 2010. London: Resuscitation Council; 2010. Available at: http://www.resus.org.uk/pages/GL2010.pdf.
5. Peberdy MN, Kaye W, Ornato JP et al. Cardiopulmonary resuscitation of adults in the hospital: a report of 14720 cardiac arrests from the National Registry of Cardiopulmonary Resuscitation. Resuscitation 2003;58:297-308.
6. Ebell MH, Becker LA, Barry HC et al. Survival after in-hospital cardiopulmonary resuscitation. J Gen Intern Med 1998;13:805-816.
7. Sasson C, Rogers MA, Dahl J, Kellermann AL. Predictors of survival from out-of-hospital cardiac arrest: a systematic review and meta-analysis. Circ Cardiovasc Qual Outcomes 2010 Jan; 3(1):63-81.
8. Reisfield GM, Wallace SK, Munsell MF et al. Survival in cancer patients undergoing in-hospital cardiopulmonary resuscitation: a meta-analysis. Resuscitation 2006;71:152-160.
9. Hijazi F, Holley JL. Cardiopulmonary resuscitation & dialysis: outcome & patients' views. Seminars in Dialysis 2003;16(1):51-63.
10. Ebell MH, Afonso AM. Pre-arrest predictors of failure to survive after in-hospital cardiopulmonary resuscitation: a meta-analysis. Fam Pract 2011 Oct; 28(5):505-515.
11. Cummins RO, ed. Cerebral resuscitation: treatment of the brain after cardiac resuscitation. In Advanced Cardiac Life Support, 15:1-5. American Heart Association; 1997-99.
12. Abramson NS, Safar P, Detre KM et al. Neurologic recovery after cardiac arrest: effect of duration of ischemia. Crit Care Med 1985 Nov; 13(11):930-1.
13. Hoke RS, Chamberlain D. Skeletal chest injuries secondary to cardiopulmonary resuscitation. Resuscitation 2004;63:327–338.
14. British Medical Association, Resuscitation Council (UK), Royal College of Nursing. Decisions relating to cardiopulmonary resuscitation: a joint statement from the British Medical Association, the Resuscitation Council (UK) and the Royal College of Nursing. London: British Medical Association; 2007.
15. Wolff A, Browne J, Whitehouse WP. Personal resuscitation plans and end of life planning for children with disability and life-limiting/life-threatening conditions. Arch Dis Child Educ Pract Ed 2011;96:42–48.
16. Royal College of Paediatrics and Child Health. Withholding or withdrawing life sustaining treatment in children: a framework for practice. 2nd ed. London: Royal College of Paediatrics and Child Health; 2004.

Annex 1

The Code of Professional Conduct of the Medical Council of Hong Kong

Section 34 Care for the terminally ill:

34.1 Where death is imminent, it is the doctor's responsibility to take care that a patient dies with dignity and with as little suffering as possible. A terminally ill patient's right to adequate symptom control should be respected. This includes problems arising from physical, emotional, social and spiritual aspects.

34.2 Euthanasia is defined as "direct intentional killing of a person as part of the medical care being offered". It is illegal and unethical.

34.3 The withholding or withdrawing of artificial life support procedures for a terminally ill patient is not euthanasia. Withholding/withdrawing life sustaining treatment after taking into account the patient's benefits, wishes of the patient and family, and the principle of futility of treatment for a terminal patient, is legally acceptable and appropriate.

34.4 It is important that the right of the terminally ill patient be respected. The views of his relatives should be solicited where it is impossible to ascertain the views of the patient. The decision of withholding or withdrawing life support should have sufficient participation of the patient himself, if possible, and his immediate family, who should be provided with full information relating to the circumstances and the doctor's recommendation. In case of conflict, a patient's right of self-determination should prevail over the wishes of his relatives. A doctor's decision should always be guided by the best interest of the patient.

34.5 Doctors should exercise careful clinical judgment and whenever there is disagreement between doctor and patient or between doctor and relatives, the matter should be referred to the ethics committee of the hospital concerned or relevant authority for advice. In case of further doubt, direction from the court may be sought, as necessary.

34.6 Doctors may seek further reference from the Hospital Authority, the Hong Kong Medical Association and the relevant colleges of the Hong Kong Academy of Medicine.

Annex 2

An Outline of the Ethical Principles of Autonomy and Best Interests

1 Principle of patient autonomy

1.1 All adult patients are presumed to have mental capacity to make an informed choice to consent or to refuse any medical treatment, unless there is evidence suggesting a lack of capacity.

1.2 Mentally competent patients can make an informed choice to refuse in advance any medical treatment when they become mentally incapacitated.

1.3 Their choices should be duly respected provided that:

- they understand the nature and consequences of their choices, and
- they are in the situations in which their choices are applicable.

1.4 If their choices cannot be ascertained, the principle of patient autonomy is not applicable and the best interests principle should be followed.

1.5 The choices of minor patients with sufficient decisional capacity and maturity to consent to or refuse what has been proposed should be taken very seriously unless the choices are clearly not in their best interests.

2 Best interests principle [3]

2.1 With regard to a patient's best interests, one has to consider the chance of success and the overall benefits of a medical treatment.

2.2 In assessing the overall benefits, apart from the views of the healthcare team, the patient's past and present wishes, values and beliefs, so far as reasonably ascertainable, should be taken into account. If it is practicable and appropriate, the patient's family, other persons close to or significant to the patient, and his/her guardian, if any, should be consulted for their views about the patient's best interests and to see if they have any information about the wishes, values and beliefs of the patient.

2.3 The patient's best interests should not be determined simply on the basis of his/her age, ethnicity, gender, appearance, condition or behaviour.

2.4 No healthcare professional is obliged to provide medical treatment which is not in the best interests of the patient.