



# KASTURBA HOSPITAL MANIPAL

*(Teaching hospital of KMC Manipal, a unit of MAHE)*



## BLUE MAPLE™



Before Life Ends, Understand and Evaluate  
the Choice of Medical Treatment Offered  
Methodised Action Plan for Limitation of  
Life-Sustaining Treatment and End of Life Care



International  
Collaborative  
for Best Care  
for the Dying Person



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“Whenever the illness is too strong for the  
available remedies, the physician surely must not  
expect that it can be overcome by medicine ...  
To attempt futile treatment is to display ignorance  
that is allied to madness”  
(Hippocratic Corpus)

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**MANIPAL**  
ACADEMY of HIGHER EDUCATION

(Deemed to be University under Section 3 of the UGC Act, 1956)

**Dr Ramdas M Pai**  
*President & Chancellor*

March 20, 2019

Dr.Avinash Shetty,  
Medical Superintendent,  
Kasturba Hospital,  
Manipal

Dear Dr.Avinash Shetty,

I am glad to know Kasturba Hospital is publishing a document on 'Guidelines'on limitation of life sustaining treatment' to be released by Dr.B.N.Gangadhar, Director, NIMHANS. The publication will, I am sure, help the doctors concerned to take appropriate decisions in the treatment procedures. My best wishes for the event. Please convey my regards to Dr.B.N.Gangadhar.

With best wishes,

Yours sincerely,

Dr.Ramdas M.Pai

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## Preface to the First Edition

End of life care is person-centred, which encompasses all aspects of comprehensive care of an individual at his or her end of life. Blue Maple document mandates the due processes involved in these critical and urgent decisions. It describes methodical execution of the process with adequate safeguards in place to balance between the ease of use and prevention of abuse. “End of Life Care Policy: An integrated care plan for the dying” was developed by the Indian Society of Critical Care Medicine and Indian Association of Palliative Care. The purpose was to develop end-of-life care (EOLC) policy for patients who are dying with advanced life-limiting illness and provide practical procedural guidelines for limiting inappropriate therapeutic medical interventions. It is an attempt to improve the quality of care of the dying within an ethical framework and through a professional and family/patient consensus process. All the terminologies used in this document are as per ICMR Commission Report on Definitions of terms used in Limitation of Treatment and providing Palliative Care at the end of Life.

This is a very well written document comprehensively covering all the aspects of management of critical and terminal illness, improving quality of life and looking into the wishes of the patient. Basically the purpose of this document is to make the terminally ill persons life comfortable and die with dignity.

I would like to congratulate all the contributing authors for the good work that they have done and I am sure this document will be of great help in managing the terminally ill patients and their close family members.

**Dr H S Ballal**

Pro Chancellor

Manipal Academy of Higher Education

March 2019



## Preface to the First Edition

Paul Kalanithi a young neurosurgeon with a terminal illness in his book “When Breath becomes Air” states “at those critical junctures, the question is not simply whether to live or die, but what kind of life is worth living”. It is in these critical junctures where an appropriate decision on continuation or limitation of life sustaining treatment can change the course of lives of patients and their families. Although from 2005 onwards there has been multiple initiatives by Dr R K Mani and others on advocating limitation of life sustaining treatment, it was unable to bring out that transformational change in the practice due to legal ambiguities and lack of procedural guidelines. In March 2018, the Supreme Court delivered a landmark verdict where it stated “Each individual must have the right on whether or not to accept or refuse medical intervention and treatment, and the right to die with dignity is within the ambit of Article 21 of the Indian Constitution. It has also mandated the doctors to act in the best interest of the patient and allowed advanced directives or living will as a means to facilitate “Right to Live and Die with Dignity”. This document is an attempt to bring out the much-needed procedural guidelines on limitation of life sustaining treatment in a way that will complement the philosophy surrounding the March 2018 Supreme Court Verdict.

I would like to congratulate the team of experts from KMC, experts from other Manipal institutions, external experts and administrators for compiling this document. I am sure this document in open domain may inspire other to emulate our practices. Mitch Albom in his memoir written for his friend Morrie suffering from motor neuron disease titled “Tuesdays with Morrie” states “the culture we have does not make people feel good about themselves. We’re teaching the wrong things. And you have to be strong enough to say if the culture doesn’t work, don’t buy it. Create your own. Most people can’t do it.” I am very happy that the Manipal was able to accomplish this much needed social initiative by creating a procedural guideline on limitation of life sustaining treatment. We hope that it may facilitate a transformational cultural change in practices surrounding the care of patients and their families with life limiting illness.

**Dr H Vinod Bhat**

Vice-Chancellor

Manipal Academy of Higher Education

March 2019



## Preface to the Second Edition

*"We think our job is to ensure health and survival. But really, it is larger than that. It is to enable well-being. And well-being is about the reasons one wishes to be alive. Those reasons matter not just at the end of life or when debility comes, but all along the way. Whenever serious sickness or injury strikes and your body or mind breaks down, the vital questions are the same: What is your understanding of the situation and its potential outcomes? What are your fears, and what are your hopes? What are the trade-offs you are willing to make and not willing to make? And what is the course of action that best serves this understanding?"*  
Atul Gawande, *Being Mortal: Medicine and What Matters in the End*.

Often, we perceive the healthcare system's role as to cure, continue attempts towards a cure, and prolong life at every cost. Although it might be applicable in most clinical practice settings, we often encounter situations where illnesses are far advanced and overmaster a person. Continuing invasive medical interventions in these circumstances could be potentially inappropriate or futile and might not be in the person's best interests. Although most healthcare providers understand and acknowledge futility in these medically challenging settings, they have little experience managing them. Moreover, this lack of knowledge is compounded with legal conundrums encompassing the process of limitation of life-sustaining treatment. Although the Supreme Court of India's landmark judgment in 2018 and other provisions of Indian law advocates this approach, there is a lack of procedural guidance to operationalise the process and implement it in practice. The BLUE MAPLE is an excellent compendium that bridges this knowledge gap.

BLUE MAPLE was initially created in 2019, and the first edition was released in March 2019. It was widely used in the last two years at the Kasturba Hospital Manipal and many other hospitals nationally. Recently similar documents were released by some national bodies, which is in line with the philosophy of BLUE MAPLE. Over the last two years, around 300 patients at the Kasturba Hospital, Manipal with a critical and terminal illness, received care using the BLUE MAPLE guidance document. It is gaining rapid interest and acceptability in the Kasturba hospital and across many hospitals nationally. I am pleased to know that the International Collaborative for Best Care of the Dying Person have assessed our document, found it congruent and partnered with Manipal for the second edition of BLUE MAPLE. They have also contributed to section E of the document. I hope this document continues to inspire and educate the healthcare providers in providing care accounting for the individual's best interest.

**Lt. Gen. (Dr.) M.D. Venkatesh**, VSM (Retd)  
Vice-Chancellor  
Manipal Academy of Higher Education  
April 2021



## Preface to the Second Edition

In his book, “The 7 Habits of Highly Effective People,” Stephen Covey narrates how deeply embedded perceptions distort reality and why we must constantly examine the lens through which we see the world and interpret it. This statement of Covey is apt to the end-of-life care situation in India, and we must reflect and review the lenses of medical practice towards ‘the end of life’. Over the last decade, several published reports, nationally and internationally, highlighted the end-of-life care practices in India. India ranks 67th among the 80 listed countries for quality of dying, and it is one among the costliest place to die. Most of the patients receive invasive medical interventions, at their end of life, irrespective of whether it is beneficial or not. A majority of families spend significant amount of their life savings for the care of their loved ones, during their last few days, in the intensive care setting, often without much benefit. Around 60 million people in India are becoming poorer every year due to health-related cost. A significant share of these expenses is for futile invasive interventions in critical and terminal illness prognosticated to have a worse outcome. BLUE MAPLE is an initiative towards providing procedural guidance for the limitation of life-sustaining treatment and end of life care, which is coherent with international best ethical practices.

As a guidance document, it provides a sequential approach towards recognising a clinically futile situation in each clinical setting, arriving at futility consensus, communication with the family, consenting limitation of treatment, comprehensive documentation in the medical records and provision of end-of-life care. This comprehensive document is created by a group of interdisciplinary experts, peer-reviewed by an external team and vetted by international experts. The guidance document has gained national and international recognition and was adopted by many organisations in India. I hope that it continues to enhance ethics-based decision making and clinical practice at the end of life and will be an excellent resource for training the junior doctors.

**Dr P L N G Rao**

Pro-Vice Chancellor (Health Sciences)  
Manipal Academy of Higher Education  
April 2021

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### Reproduced with permission:

Annexure 3C, 3D

The templates were originally co-created by Dr Nandini Vallath and Dr Naveen Salins, which is suitably modified by the legal team for this document.

Annexure 5A, Annexure 5B, Annexure 5E

The original document is the creation of the International Collaborative for the Best Care of the Dying which is harmonized to the Indian setting.

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## Foreword to the First Edition

An American writer and a biochemist said “Life is pleasant. Death is peaceful. It's the transition that is troublesome”. In most parts of the world and especially in India, this transition is overwhelmed with needless suffering, pain, uncertainties, loss of dignity and high cost. Over-medicalisation of death in India has changed the public perception of the end of life care. It has led to patients with life-limiting and critical illness with medical futility receiving potentially inappropriate interventions where the burden of these interventions outweigh the benefit. The purpose of this document is to provide a process that guides the clinicians in limiting life-sustaining treatment in medically futile conditions and providing good end of life care.

As a preamble to this initiative, a half day consultative workshop was conducted at Manipal in November 2018 to arrive at a consensus on key aspects relating to limitation of life-sustaining treatment. This consultative meeting had inter-disciplinary experts including ethicists and legal luminaries. Subsequently, a hospital End of Life Care committee was set up, and they were assigned to draft the process for limitation of life-sustaining treatment in a manner that closely aligns with the philosophy and principles of the March 2018 Supreme Court verdict. The draft was peer-reviewed by multiple inter-disciplinary teams of medical experts, hospital administrators, academicians and legal consultants. The final document is the embodiment of a broad consensus of the experts, which is vetted and validated at multiple levels.

O'Donohue poetically states that “many people remain trapped at the one window, looking out every day at the same scene in the same way. Real growth is experienced when you draw back from that window, turn and walk around the inner tower of soul and see all the different windows that await your gaze. Through these windows, you can see new vistas of possibility, presence, and creativity. Complacency, habit and blindness often prevent us from feeling life. So much depends on the frame of the vision-the window through which we look.” We hope that this document will play a significant role in enabling the physicians to reflect upon their practices, look for new possibilities of care and develop insights on best outcomes for the patients dying with medically futile conditions.

**Dr Poornima Baliga B**

Pro-Vice Chancellor (Health Sciences)  
Manipal Academy of Higher Education  
March 2019



## Foreword to the Second Edition

I am pleased to know that the Kasturba Hospital Manipal is releasing the second edition of BLUE MAPLE, a methodised action plan for limiting life-sustaining treatment and end of life care in patients with a critical and terminal illness. It provides an ethical framework for decision-making and procedural guidelines for implementing care when initiation or sustaining advanced medical interventions is potentially inappropriate and medically futile.

The first edition of the BLUE MAPLE was released on 24th March 2019 by Professor B N Gangadhar, Director of NIMHANS. Following the release, this document was adopted to use at the Kasturba Hospital Manipal. In the last couple of years, around 300 patients received appropriate care using the framework prescribed in the BLUE MAPLE. It was convenient while managing serious and critical COVID-19 patients, where the likely chance of clinical recovery was negligible. Following the release of BLUE MAPLE, similar documents were released by the Federation of Indian Chambers of Commerce and Industry (FICCI) and Indian Council of Medical Research, which validated our initial efforts of developing this document in 2018-19.

The second edition have a few minor edits and modifications to the templates and procedures. Changes made were informed from the learnt experiences of implementing BLUE MAPLE. There was both national and international oversight for this document. The International Collaborative for Best Care of the Dying Person contributed to the document's section on end-of-life care. The document is both copyrighted and trademarked. However, it could be disseminated and used for clinical purposes beyond the Kasturba Hospital Manipal.

I hope this document will be a valuable addition in a sustained effort to provide good palliative and end-of-life care in terminal illness and critical care settings.

Best regards,

**Dr Sharath K Rao**  
Dean, KMC, Manipal  
April 2021

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## PREAMBLE

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End of life care is a person-centred, a personalised perception of "Good Death" which encompasses all aspects of comprehensive care of an individual at his or her end of life. It involves a. Applicability to any person, place or illness b. Relief of physical, psychological, social, spiritual and existential symptoms c. To die at the preferred place of choice d. To receive appropriate care by a trained health care provider and e. To have access to palliative care at the end of life. Every individual has a right to a good, peaceful and dignified end of life care and death.

Clinical decision making in advanced and critical illness is often technologically and ethically complicated. As multiple stakeholders are involved in clinical decision making, it is easy to lose perspective of the illness, futility, outcomes of interventions and patient's autonomy. The Blue Maple document mandates the due processes involved in these critical and urgent decisions. It describes methodical execution of the process with adequate safeguards in place to balance between the ease of use and prevention of abuse.

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## BACKGROUND

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According to the Global Atlas of Palliative care, palliative and end of life care need in the South East Asia Region (SEAR) are estimated to be around 175-275 per 100,000 population. SEAR constitutes 24% of the world's palliative and end of life care needs. The 2015 Quality of Death Index ranking palliative care across the world has ranked India 67th among the 80 countries studied. According to this report, poor quality of end of life care delivery in India is secondary to lack of government-led strategy towards national level palliative care, shortage of specialist palliative care providers, limitation of public funds, lack of availability of opioid analgesics and poor public awareness about palliative and end of life care.

The majority of the hospitals in India subject patients with terminal and critical illness to inappropriate life-sustaining interventions without any clinical benefit. The patients experience poor control of symptoms, families receive incomplete health-related communication, and often the health care providers lack training in providing end of life care. The patients are continued on disease-modifying treatments until the last weeks of life and often receive futile life-sustaining interventions. These patients are seldom referred to palliative care. Moreover, goals of care discussion, advanced care planning and anticipatory directives are never addressed.

Providing aggressive life-sustaining treatment is often futile and may cause needless suffering in terminal illness. It may be against the patient's interest and may contribute to needless pain, burden and suffering. Limiting life-sustaining treatment in terminally ill patients at the end of life allows the individual to die with dignity. The document aims to make this process as simple and safe to protect patients' right to receive a dignified end of life care and limit needless harm due to inappropriate interventions at the end of life.

Since our last edition, the Indian Council of Medical Research (ICMR) and Federation of Indian Chambers of Commerce and Industry (FICCI) have published similar work on Limiting Life Sustaining Treatment in Critical and Terminal illness.

## OVERVIEW OF THE STRUCTURE AND STEPS

The structure of this document closely follows the joint society guidelines on “End of Life Care Policy: An integrated care plan for the dying” developed by the Indian Society of Critical Care medicine and Indian Association of Palliative Care. The purpose was to develop end-of-life care (EOLC) policy for patients who are dying with advanced life-limiting illness and provide practical procedural guidelines for limiting inappropriate therapeutic medical interventions. It is an attempt to improve the quality of care of the dying within an ethical framework and through a professional and family/patient consensus process. It follows a 12-step approach and this document has five parts that encompasses these 12 steps.

[Myatra SN, Salins N, Iyer S, Macaden SC, Divatia JV, Muckaden M, Kulkarni P, Simha S, Mani RK. End-of-life care policy: An integrated care plan for the dying. Indian J Crit Care Med 2014; 18:615-35]

| Parts  | Item                                             | Steps of 12-Step Pathway                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part A | Recognition of Medical Futility                  | Step 1 Physician's objective and subjective assessment of medical futility                                                                                                                                                                                                                                                                                                                                                                                     |
| Part B | Physician Consensus                              | Step 2 Consensus among health care providers                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Part C | Communication, Decision Making and Documentation | Step 3 Honest, accurate and early disclosure of prognosis to the best available knowledge of the physicians<br>Step 4 Discussion and communication of all modalities of End of Life Care<br>Step 5 Shared decision making and achieving consensus between health care providers and patients with repeated and open discussion<br>Step 6 Transparency and consistency in documentation<br>Step 7 Ensuring consistency among the caregivers by a family meeting |
| Part D | Implementation of Withholding and Withdrawing    | Step 8 Implementing the process of withholding and withdrawal of life-sustaining treatment                                                                                                                                                                                                                                                                                                                                                                     |
| Part E | End of Life Care                                 | Step 9 Palliative Care in End of Life<br>Step 10 After death care<br>Step 11 Bereavement support<br>Step 12 Review of the care process                                                                                                                                                                                                                                                                                                                         |

All the terminologies used in this document are as per ICMR Commission Report on Definitions of terms used in Limitation of Treatment and providing Palliative Care at the end of Life.

[Salins N, Gursahani R, Mathur R, Iyer S, Macaden S, Simha N, Mani RK, Rajagopal M R. Definition of terms used in limitation of treatment and providing palliative care at the end of life: The Indian Council of Medical Research Commission report. Indian J Crit Care Med 2018; 22:249-62]

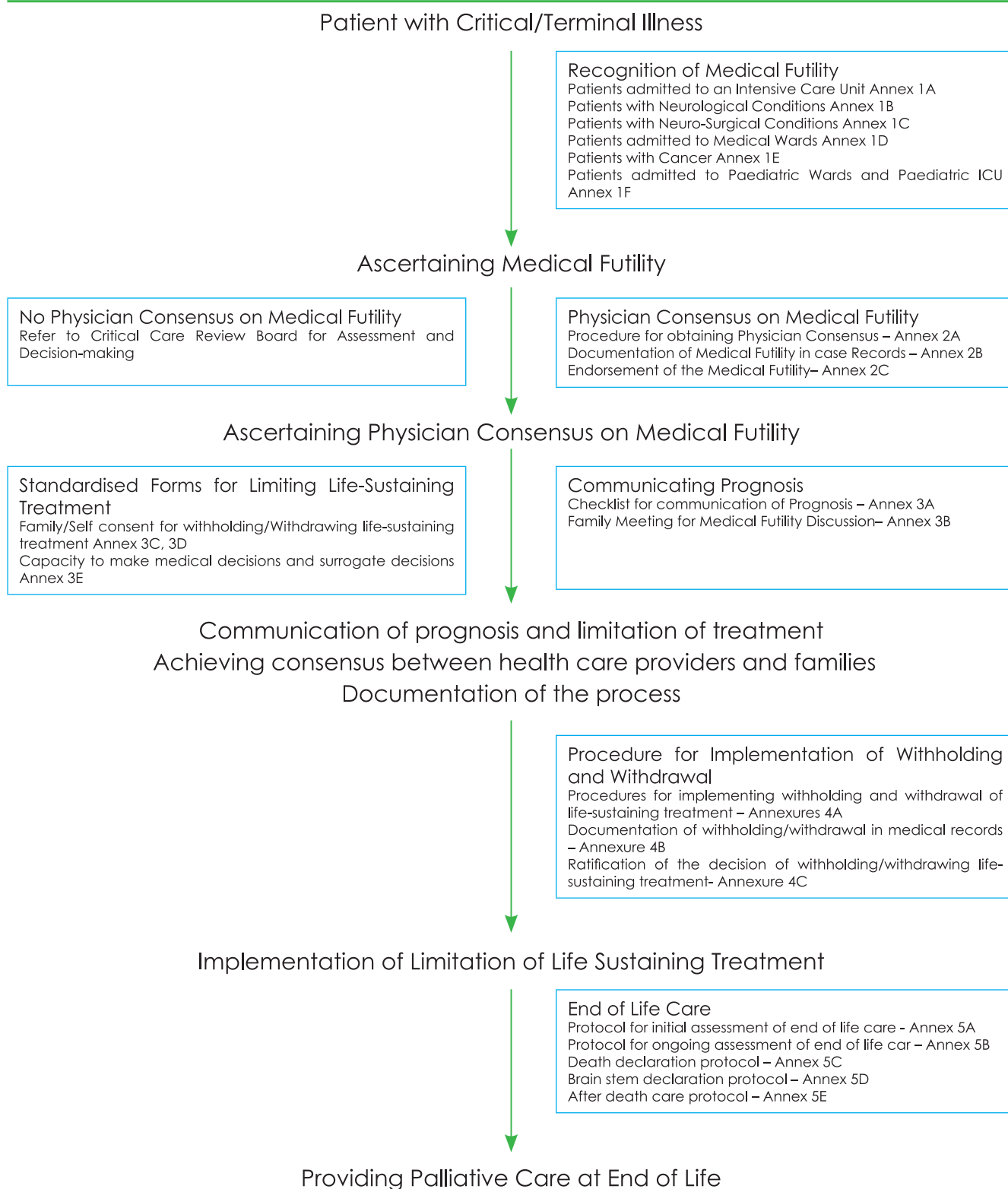
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## **METHOD OF DEVELOPING THE STANDARD OPERATING PROCEDURES**

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The hospital end of life care task force consisted of critical care physicians, general physicians, neurologists, neurosurgeons, paediatricians, palliative care specialists, forensic experts, lawyers and hospital administrators. The task force collectively completed the document. The document was initially internally peer reviewed by the task force members and by the designated experts nominated by the hospital. The document had two tiers of external peer review, the first tier comprised of clinicians from various disciplines of medicine practising across India and second tier comprising of legal experts involved in end of the life care process and the hospital administrators across India. After the peer review, the document was finalised by the hospital quality team and was made available for dissemination.

## ALGORITHM





## **ANNEXURES**

### **Part A: Recognition of Medical Futility**

General Criteria in adult patients that predisposes to medical futility

- Advanced age
- Limited functional capacity
- Poor performance status
- Multiple co-morbid illnesses
- One or more end-stage organ impairment (pulmonary, cardiac, renal, hepatic etc.)

#### **Patients Admitted to an Intensive Care Unit (Annexure 1A)**

- Progressively worsening multi-organ dysfunction not responding to a reasonable duration of aggressive medical interventions
- Coma due to causes with non-reversible effects like major infarcts, intracranial bleed or traumatic brain injury
- Metastatic malignancies where there are no treatment options or where the treatment options cannot meet the goals of care
- Post-cardiac arrest status with poor neurological outcomes
- Chronic neurological conditions where there is a progressive deterioration in the cognition and functional ability leading to a poor quality of life like progressive dementia, chronic vegetative state, quadriplegia
- Any condition where the physician predicts a low probability of meaningful survival
- Extreme drug-resistant infections

With (one or more aspects provided below)

- Progressively dropping blood pressure despite all correctable measures
- Progressively worsening neurological status
- Progressively increasing need for ventilator support
- Worsening multi-organ dysfunction
- Progressively worsening metabolic parameters

#### **Patients with Neurological Conditions (Annexure 1B)**

- Advanced cases of Alzheimer's disease with total dependence (Dementia Rating Scale 50 or above)
- Stroke survivors with GCS <4 after three days of absent corneal reflex
- Multiple Sclerosis EDSS scale 9.5 (Confined to bed and totally dependent. Unable to communicate effectively or eat/swallow)
- ALS rating scale (<6)
- Parkinson's Disease UPDRS Scale <150
- CNS Infections like meningitis and encephalitis with progressive worsening, multiorgan dysfunction that does not respond to a period of aggressive therapy



- Post-cardiac arrest status with poor neurological outcomes
- Any condition where the physician predicts a low probability of meaningful survival
- Supra refractory status epilepticus after three days of aggressive management.

#### **Patients with Neuro-Surgical Conditions (Annexure 1C)**

- Severe traumatic brain injury (GCS < 6) with dilated fixed pupils > 48 hours
- High cervical spinal cord injury with quadriplegia and absence of any spontaneous respiratory effort > 7 days
- Patients with ICH score > 5 for more than 48 hours
- Patients with Malignant ischemic infarct (pre and post-operative) with GCS < 6 and fixed dilated pupils
- Recurrent high-grade brain tumours with GCS < 6 and poor KPS < 70
- Metastatic brain disease with GCS < 6 and poor KPS < 70
- Patients with diffuse hypoxic injury secondary to any aetiology
- Congenital paediatric developmental abnormalities incompatible with prolonged survival

#### **Patients admitted to the Medical Wards (Annexure 1D)**

- Terminally ill patient with progressive multi organ failure needing life support systems and medicines (sepsis and MODS) not showing signs of response to therapy
- Advanced progressive organ failure needing life support system and medicine (renal, liver, cardiac, neurological or respiratory failure) and not showing signs of response to therapy and organ transplantation or replacement therapy is not feasible
- Advanced malignancy on palliation with additional complications like severe infection, bleeding or organ failure

With (one or more aspects provided below)

- Progressively dropping blood pressure despite all correctable measures
- Progressively worsening neurological status
- Progressively increasing need for ventilator support
- Worsening multi-organ dysfunction
- Progressively worsening metabolic parameters

### In Patients with Cancer diagnosis (Annexure 1E)

- Metastatic cancer or advanced cancer with no scope of further disease modifying treatment
- Expected survival weeks to days
- Poor performance status and needing significant assistance with activities of daily living
- Multiple unplanned admissions and ER visits in the last 12 months

With (one or more aspects provided below)

- Progressively dropping blood pressure despite all correctable measures
- Progressively worsening neurological status
- Progressively increasing need for ventilator support
- Worsening multi-organ dysfunction
- Progressively worsening metabolic parameters

### Patients admitted to Paediatric Ward or Paediatric ICU (Annexure 1F)

#### 1) Medically futile conditions in Paediatrics / Neonatal period

- a) The child in a permanent vegetative state: Permanent vegetative state can occur as a result of a variety of insults, such as hypoxia or trauma. The child is totally dependent on others for all aspects of care and does not react to, or interact with, the outside world. (absence of cortical peaks in the somatosensory evoked potential (SSEP) / post cardiac arrest with no poor neurological outcome
- b) The “no chance” situation: The “no chance” category covers the child for whom life-sustaining treatment will merely delay death, without significantly relieving the suffering caused by the disease e.g. spinal muscular atrophy and myopathies / end stage solid organ tumours / Leukaemia's with worst prognosis with relapses
- c) The “no purpose” situation: “No purpose” refers to when a child's life may be saved by medical treatment, but the degree of mental or physical impairment may be so great that the quality of life for the child is intolerable e.g. Meningomyelocele / cauda equina syndrome/ caudal regression syndrome / anencephaly / massive hydrocephalus / severe neuronal migration defects/ hypo-plastic left heart syndrome / pulmonary atresia and complex congenital heart diseases / interrupted aortic arch / prune belly syndrome
- d) The “unbearable situation”: In the face of progressive disease, additional treatment may only cause further suffering, despite the possibility that it might have some potential benefit on the underlying condition without curing it. e.g. Muscular dystrophy / myopathies / severe inborn errors of metabolism / focal segmental glomerulosclerosis with progressive renal failure / end-stage pulmonary (Chronic interstitial lung diseases), renal (ESRD), cardiac (cardiomyopathies), hepatic diseases (biliary cirrhosis), progressively worsening multiorgan dysfunction when a transplant is unavailable or refused

## 2) Medically futile conditions at birth

- a) a baby with congenital anomaly or anomalies that are incompatible or may be compatible with life, but the expected quality of life may be poor or a big drain on resources of family/ society.
- b) Very low birth weight and gestational age are such that survival (as per the data of intact survival of the NICU), especially intact survival, may be almost impossible and feasibility of transfer to a tertiary care neonatal unit is not possible.
- c) Severe birth asphyxia with Grade IV IVH,

With (one or more aspects provided below)

- Progressively dropping blood pressure despite all correctable measures
- Progressively worsening neurological status
- Progressively increasing need for ventilator support
- Worsening multi-organ dysfunction
- Progressively worsening metabolic parameters

Although there may be a consensus about medical futility, end of life care should not be triggered in the following situations.

- a) When the outcome is doubtful (may or may not improve the situation)
- b) When there is a conflicting opinion among the family members
- c) When the responsible next of kin is not available for discussion
- d) When the patient does not consent (if the patient is capable of exercising his/her judgement and making his/her wishes known about limiting life-sustaining treatment, but not capable of signing a consent document, then an audio-visual recording of his/her consent may be used as a substitute to informed consent)
- e) When the treating doctors do not agree to DNR decisions, it should never be accepted based on the suggestions of parents or relatives

The inability of the patient to pay for advanced care should never be a factor in determining whether or not his/her condition is medically futile

When the patient does not have the capacity to participate in the discussion or decision-making the next of kin will be the surrogate decision-maker.

## Part B: Physician consensus on Medical Futility

### Procedure for obtaining Physician Consensus (Annexure 2A)

1. Agreed upon by the primary treating physician(s) involved in the care and the futility is documented in the medical case records and signed
2. The futility is endorsed by two consultants preferably of the same or related speciality involved in the care of the patient.
3. In the case of children, futility is assessed by two paediatricians involved in the care of the patient.
4. In cancer setting the futility of care has to be endorsed by an oncologist involved in the care of the patient or preferably by the hospital tumour board.
5. If there is no consensus on futility, then the case is referred to the hospital Critical Care Review Board (CCRB) whose decision is binding.
6. Once there is consensus on medical futility, there should be detailed documentation justifying the futility decision.
7. Once there is consensus on futility, the decision to withhold/withdraw life-sustaining treatment has to be ratified by the hospital End of Life Care (EOLC) Review Committee comprising of The Medical Superintendent, Head of Clinical Forensic Unit, and Member Secretary of Institutional Ethics Committee. In the absence of an EOLC Review Committee, the decision can be ratified by the Clinical Ethics Committee appointed by the respective hospital.
8. After consensus on medical futility, a mandatory referral has to be made to Department of Palliative Medicine and Supportive Care for assessment of palliative care needs if such service is available.
9. Communication of the medical futility to the families/caregivers has to be made jointly by the primary treating physician along with the Palliative Medicine team (if such service is available) during a family meeting.

### Documentation of the Medical Futility in the Medical Records (Annexure 2B)

The futility documentation should comprise of the following

1. Procedures confirming diagnosis/prognosis that satisfy the requirements of medical futility
2. Statements stating that the patient has a terminal or critical illness with no reasonable chance of recovery and the burden or/and harm of the medical interventions outweigh the benefit.
3. Summary of treatment provided till date and outcomes
4. Life-sustaining treatments currently provided
5. Life-sustaining treatments proposed to be withheld/withdrawn
6. Alternatives to life-sustaining treatment proposed

**Endorsement of the Medical Futility by two consultants involved in the care of the patient (Annexure 2C)**

We hereby certify that.....bearing Hospital No.....  
admitted at.....has.....

We feel that initiating or continuing life-sustaining treatment in this patient is medically futile because.....

We recommend withholding/withdrawing of all life-sustaining measures in this patient such as.....

We recommend symptom control measures and end of life care for this patient.

Place:

Date:

Name Signature of the treating consultants:  
(along with seal of the Department)

1.

2.

## Part C: Communication of Medical Futility

### Communication Checklist while discussing Prognosis and Medical Futility (Annexure 3A)

The communication and discussion of limitation of life-sustaining treatment should comprise of

1. Refractory nature of the illness
2. Burden versus benefit of continuation of aggressive medical management
3. The transition of care i.e. from a disease centred approach to a quality of life centred approach
4. End of life care as an alternative to futile aggressive medical interventions
5. Discussion on aspects related to prognosis, life expectancy, future course of illness, and what to expect in the future
6. Addressing fears about future symptoms and course of illness and providing reassurance
7. Discussing symptom control and quality of life improvement strategies
8. Introducing palliative care services ( if such service is available) and explaining their scope in the management of the patient
9. Exploring any myths, misunderstandings about the limitation of treatment and clarifying doubts
10. Exploring conflict and taking steps toward conflict resolution
11. Discussing the process of dying, optimisation of medications, nutrition and hydration at end of life and exploring any religious/cultural preferences
12. The option of transferring to another clinical establishment may be presented if the patient or his/her family is unable to agree with the treating team about medical futility.

### Family Meeting for the Medical Futility discussion (Annexure 3B)

We, the family members of the patient,....., bearing hospital number ..... admitted at the ..... of Kasturba Hospital, Manipal, acknowledge that we have attended the family meeting on..... (date) convened by the Department of .....  
.....

In the family meeting, the treating consultants have explained and apprised us the above-mentioned patient's current clinical condition, nature of the diagnosis, prognosis, and the outcomes of the treatment.

In the family meeting we have asked questions and clarified our queries regarding the patient's clinical condition, diagnosis, prognosis, and outcomes of the treatment.

We understand from this family meeting that the patient has advanced critical/terminal illness where benefit of initiating or continuing life-sustaining medical interventions has a higher potential to cause harm and suffering without any reasonable clinical benefit.

We acknowledge that the patient is able/unable to participate in this clinical decision-making. We, the family of the patient, are collectively and consequently making treatment decisions with/for the patient. We represent the patient's wishes and state that there is no conflict in the family regarding treatment decision-making for the patient.

The Family meeting was conducted: In Person ☐ Phone ☐ Video Consultation ☐

| Relationship | Name | Signature/ Verbal Consent | Date /Time |
|--------------|------|---------------------------|------------|
|              |      |                           |            |
|              |      |                           |            |
|              |      |                           |            |

| Department | Consultant (s) Name | Signature | Date /Time |
|------------|---------------------|-----------|------------|
|            |                     |           |            |
|            |                     |           |            |
|            |                     |           |            |



## Family Directive for Withholding/Withdrawal of Life-Sustaining Treatment (Annexure 3C)

We understand that our patient ..... bearing hospital number ..... is admitted at the ..... of Kasturba Hospital Manipal. We know that he/she has ..... He/she has a critical illness where disease-modifying treatment options may not be beneficial, and he/she has complications related to the progressive nature of the critical illness, which is potentially life-threatening.

We understand that as the disease is advanced and the general health is poor, he/she could/has develop(ed) severe life-threatening complications that could threaten the quality of life. We know that these complications are seldom reversible, and the burden of treating these complications using/continuing life-sustaining measures has a higher potential to cause harm and suffering without any reasonable clinical benefit. Considering these circumstances, our goal of care for our patient would be symptom relief, comfort measures and quality of life.

We understand the futility of critical care interventions for supporting life such as endotracheal intubation (putting a tube into the windpipe), mechanical ventilation (forceful delivery of oxygen into the lungs using a machine), cardiopulmonary resuscitation (mechanical measures/drugs used to start/increase the heart functioning / blood pressure) and aggressive intensive care measures like haemodialysis, tracheostomy (making a hole in the windpipe to assist breathing), or any other interventions used in an intensive care setting like .....

We have considered the decision to withhold new interventions, de-escalate (reduce) existing interventions or not further escalate (increase) existing interventions for life support as mentioned above with the understanding that the treatment has a higher potential to cause pain and suffering than the resolution of organ failure or illness, and the overall critical illness process has progressed beyond the possibility of reasonable recovery. We understand that signing this document would not deprive our patient of any necessary medical and nursing care, pain and symptom relief measures, and specific supportive care measures as appropriate with the highest priority to maintain dignity and quality of life.

We request you to withhold/withdraw life-sustaining measures as mentioned above for .....

We at this moment request you to allow natural death in the event of cardio-pulmonary arrest, i.e. no external chest compressions, no intubation, no chemical or electrical cardioversion (attempt to revert rhythm of the heart).

We have discussed all the details with the doctors in the language we understand, and we are making an informed decision. We say that we are making this declaration out of a free will and there is no coercion, undue influence and fraud.



The consent was sought: In Person ☐ Phone ☐ Video Consultation ☐

| Relationship | Name | Signature/ Verbal Consent | Date /Time |
|--------------|------|---------------------------|------------|
|              |      |                           |            |
|              |      |                           |            |
|              |      |                           |            |

| Department | Consultant (s) Name | Signature | Date /Time |
|------------|---------------------|-----------|------------|
|            |                     |           |            |
|            |                     |           |            |
|            |                     |           |            |

### Self Directive for Withholding and Withdrawing Life Sustaining Treatment (Annexure 3D)

I,..... bearing hospital number ..... admitted at the ..... of Kasturba Hospital Manipal, understand that I have .....

I have a critical illness where disease-modifying treatment options may not be beneficial, and the complications related to the progressive nature of the critical illness is potentially life-threatening.

I understand that as the disease is advanced and my general health is poor and I could/have develop(ed) severe life-threatening complications that could threaten my quality of life. I know that these complications are seldom reversible, and the burden of treating these complications using/continuing life-sustaining measures has a higher potential to cause harm and suffering without any reasonable clinical benefit. Considering these circumstances, my preference would be symptom relief, comfort measures and quality of life.

I understand the futility of critical care interventions for supporting life such as endotracheal intubation (putting a tube into the windpipe), mechanical ventilation (forceful delivery of oxygen into the lungs using a machine), cardiopulmonary resuscitation (mechanical measures/drugs used to start/increase the heart functioning / blood pressure) and aggressive intensive care measures like haemodialysis, tracheostomy (making a hole in the windpipe to assist breathing), or any other interventions used in an intensive care setting like .....

I have considered the decision to withhold new interventions, de-escalate (reduce) existing interventions or not further escalate (increase) existing interventions for life support as mentioned above with the understanding that the treatment has a higher potential to cause pain and suffering than the resolution of organ failure or illness, and the overall critical illness process has progressed beyond the possibility of reasonable recovery. I understand that signing this document would not deprive me of any necessary medical and nursing care, pain and symptom relief measures, and specific supportive care measures as appropriate with the highest priority to maintain my dignity and quality of life.

I request you to withhold/withdraw life-sustaining measures as mentioned above.

I at this moment request you to allow natural death in the event of cardio-pulmonary arrest, i.e. no external chest compressions, no intubation, no chemical or electrical cardioversion (attempt to revert rhythm of the heart).

I have discussed all the details with the doctors in the language I understand, and I am making an informed decision. I am making this declaration out of a free will and there is no coercion, undue influence and fraud.

| Patient Name | Signature/ Verbal/Other modes of communication | Date/ Time |
|--------------|------------------------------------------------|------------|
|              |                                                |            |
|              |                                                |            |
|              |                                                |            |

| Department | Consultant(s) Name | Signature | Date/ Time |
|------------|--------------------|-----------|------------|
|            |                    |           |            |
|            |                    |           |            |
|            |                    |           |            |

### Capacity to make medical decisions and surrogate decision making (Annexure 3E)

During the process of consenting, it is important to determine whether the patient has the capacity to make medical decisions or whether a surrogate should take decisions on his/her behalf.

The capacity of the person to make healthcare related decisions should be assessed by the healthcare provider.

The healthcare decision-making capacity is determined using a four-component model.

- Understanding:** The understanding refers to the ability of the individual to comprehend the information being disclosed in regard to his/her condition as well as the nature and potential risks and benefits of the proposed treatment and alternatives (including no treatment).
- Appreciation:** The appreciation refers to the ability to apply the relevant information to one's self and own situation.
- Reasoning:** The reasoning refers to evidence that the person's decisions reflect the presence of a reasoning process, i.e. ability to engage in consequential and comparative reasoning and to manipulate information rationally.
- Expression of a Choice:** At its most basic level, it simply refers to the ability to communicate a decision. However, no adverse inference ought to be drawn from an inability to communicate verbally.

If the patient does not have the capacity to make medical decisions or unable to participate in the medical decision making, the process of decision-making rests on patient surrogates, which is usually patient's family or friends who makes the medical decision in consultation with the treating team in best interests of the patient.

If there are no documented surrogate decision makers, the next of kin hierarchy according to the 1994 Transplantation of Human Organs Act i.e. hierarchically, spouse, son, daughter, father, mother, brother, sister, grandfather, grandmother, grandson or grand daughter will be the surrogate decision makers.

The surrogate(s) acting in the best interest of the patient is expected to

- a. Consider all relevant circumstances and options without discrimination
- b. Consider any beliefs or values likely to influence the individual if they had capacity
- c. Consult with family members as to whether the individual previously had expressed any opinions or wishes about their future care.
- d. Consult with the clinical team caring for the individual
- e. If there is an advance directive that the patient has made, the surrogate should use that as one of the factors in guiding his/her decision.

The surrogate(s) should neither make any judgement using clinician's view of quality of life and nor motivated by a desire to hasten or prolong the person's death

## Part D: Implementation of Withholding and Withdrawing Life Sustaining Measures

### Procedure of implementing withholding and withdrawing life-sustaining treatment (Annexure 4A)

1. The first step is to establish and endorse the medical futility decision, which is made by the primary treating physician and another consultant of the same or related speciality involved in the care of the patient.
2. The second step is communication of the medical futility decisions during the family meeting and obtain consent to withhold/withdraw life-sustaining treatment from the family/patient.
3. The third step is the ratification of the decision to withhold/withdraw life-sustaining treatment by the End of Life Care (EOLC) Review Committee. In the absence of an EOLC Review Committee, the decision can be ratified by the Hospital Clinical Ethics Committee.
4. The family/patient should be informed prior to the initiation of the withholding/withdrawal process.
5. During Withholding/Withdrawal of life sustaining treatment maximum symptom relief and comfort during and after the process should be ensured. It should be preferably done under the supervision of palliative care services (if such services are available).

### Documentation in the medical records during the process of withholding/withdrawing of the life sustaining treatment (Annexure 4B)

The documentation of the process of withholding/withdrawing should comprise of

1. Reasons underpinning the withholding/withdrawal decision
2. Nature of life sustaining treatment withheld/withdrawn
3. The exact process involved in withholding/withdrawal of treatment
4. Alternative palliative care measures provided during the process of withholding/withdrawal
5. Information provided to families/patient prior, during and after the process of withholding/withdrawal

**Ratification of the decision of withholding/withdrawing life sustaining treatment by the  
End of Life Care Review Team or Hospital Clinical Ethics Committee  
(Annexure 4C)**

We hereby certify that ....., bearing  
Hospital No ..... admitted at the Kasturba Hospital, Manipal, has .....  
.....

We concur with the decision of two primary treating physicians or two consultants  
involved in the care of the patient endorsing futility of life sustaining treatment.

We concur with the family/patient decision on withholding/withdrawing life sustaining  
treatment.

We agree that the decision to withhold/withdraw life sustaining is done in the best  
interest of the patient with no coercion, malice, undue influence or fraud.

We recommend withholding/withdrawing of the life sustaining treatment and  
recommend palliative care involvement to facilitate end of life care.

Place:

Date:

Name (Or Seal) and Signature of the EOLC Review Team Members:

1. Head, Centre for Clinical Forensics

2. Member Secretary, KMC/KH Institutional Ethics Committee

3. Medical Superintendent, Kasturba Hospital

## Part E: End of Life Care

### Protocol for initial assessment of End of Life Care Needs (Annexure 5A)

Person's Full Name:

M      F

Setting of care plan: HOSPITAL. Ward:

Hospital Number:

DOB:

Diagnosis:

### SECTION 1: INITIAL ASSESSMENT: Care Plan for the Dying Person This care plan will be reviewed in its entirety by a clinician daily.

#### 1. Recognition of dying and shared decision making by- – Healthcare professionals - Dying Person - Relative / Carer

- Have all potentially reversible causes of the patient's deterioration been excluded?  
E.g.: Dehydration, hypoglycaemia; opioid toxicity; hypercalcaemia; renal failure, infection, etc Y ☐ N ☐
- Is there a decision for organ transplantation? Y ☐ N ☐

Comments:

- Does the team believe the patient is in the last few hours / days of life? Y ☐ N ☐  
Indicate all that are relevant (This is only to support and not replace your clinical judgement):
- Profound weakness / bedbound / requiring all care Y ☐ N ☐
- Drowsy or reduced cognition / semi-conscious / unconscious Y ☐ N ☐
- Diminished intake of food / only able to take sips of fluids Y ☐ N ☐
- No longer able to take oral medication Y ☐ N ☐
- No interest in food / drink / surroundings Y ☐ N ☐
- Multi-organ failure Y ☐ N ☐

### Documenting the decision

(Agreed by clinician and at least one trained nurse who knows the person)

Doctor's Name:

Signature:

Nurse's name:

Signature:

Date:

Time:

am / pm

- 
- Is there an advanced care plan or clearly expressed wish by the person to refuse treatment? Y ☐ N ☐
  - If other specialists involved a professional consensus of having reached a point of futility and that the person is now dying, is obtained & documented \* Y ☐ N ☐
  - Family conference(s) to convey early, accurately, and sensitively the above decision Y ☐ N ☐
  - Family understand person is dying Y ☐ N ☐
  - Family consensus and agreement for comfort care only is documented\*\* Y ☐ N ☐
  - Family is explained the various options for further care and de-escalation of inappropriate treatment. Y ☐ N ☐
  - Family' choice of the place for further care is recorded and plans made to facilitate this Y ☐ N ☐
  - Guidance and Care Plan for the Dying (GCP-D) is explained and initiated Y ☐ N ☐
- 

Doctor and nurse who know the person, documenting the shared decision

Doctor's Name & Signature

Trained nurse's Name & Signature

At the recognition of dying is the person:

|                                                           |                                                       |                     |                                                       |                                  |                                                       |
|-----------------------------------------------------------|-------------------------------------------------------|---------------------|-------------------------------------------------------|----------------------------------|-------------------------------------------------------|
| In Pain                                                   | Y <input type="checkbox"/> N <input type="checkbox"/> | Able to swallow     | Y <input type="checkbox"/> N <input type="checkbox"/> | Confused                         | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Agitated                                                  | Y <input type="checkbox"/> N <input type="checkbox"/> | Continent (bladder) | Y <input type="checkbox"/> N <input type="checkbox"/> | (Record whichever is applicable) |                                                       |
| Nauseated                                                 | Y <input type="checkbox"/> N <input type="checkbox"/> | Catheterised        | Y <input type="checkbox"/> N <input type="checkbox"/> | Conscious                        | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Vomiting                                                  | Y <input type="checkbox"/> N <input type="checkbox"/> | Continent (Bowels)  | Y <input type="checkbox"/> N <input type="checkbox"/> | Semi conscious                   | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Dyspnoeic                                                 | Y <input type="checkbox"/> N <input type="checkbox"/> | Constipated         | Y <input type="checkbox"/> N <input type="checkbox"/> | Unconscious                      | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Experiencing respiratory tract secretions                 |                                                       |                     |                                                       |                                  | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Experiencing any other symptoms (e.g. oedema, itch, etc.) |                                                       |                     |                                                       |                                  |                                                       |
| Is person on ventilator?                                  |                                                       |                     |                                                       |                                  | Y <input type="checkbox"/> N <input type="checkbox"/> |

## 2. Communication: Recognition of dying / Information exchange

- The person is able to take full and active part in communication? Y ☐ N ☐ NA ☐
- The person is aware that they are dying Y ☐ N ☐ NA ☐
- The relative / carer is able to take full and active part in communication? Y ☐ N ☐
- They are aware that their relative / friend is dying? Y ☐ N ☐
- They are aware of what support the Hospital can offer Y ☐ N ☐
- Next of Kin and up-to-date Contact information is available Y ☐ N ☐

## 3. Spirituality

- The person is given the opportunity to discuss what is important to them Y ☐ N ☐ NA ☐  
Eg: their wishes, feelings, faith, beliefs, values, concerns
- The relative / carer is given the opportunity to discuss what is important to them.  
Eg: their wishes, feelings, faith, beliefs, values, concerns Y ☐ N ☐

Person's name

Sticker

Hospital / Hospice No:

## 4. Clinical decision making - medication



The person has medication prescribed on an "as required" / prn basis for all of the following symptoms which may develop in the last few days of life:

Pain ☐

Nausea / vomiting ☐

Terminal agitation or potential bleed ☐

Dyspnoea ☐

Respiratory tract secretions ☐

Anticipatory prescribing in this manner will ensure there is no delay in responding to a symptom if it occurs and there is no doctor immediately available.

Medicines for symptom control will only be given when needed, at the right time, just enough and no more than is needed to manage the symptom.

Current Medication assessed and non- essentials discontinued.

Equipment is available for the person to support a continuous subcutaneous infusion (CSCI)/intravenous infusion of medication where required (e.g. syringe driver/pump) or regular intermittent and prn subcutaneous or intravenous injections:

Already in place ☐ Not required ☐ Using regular & prn boluses SC/IV ☐

If an infusion to be used, explain the rationale to the person, carer or relative.

Not all persons who are dying will require an infusion.

A 4 hourly check list should be in place to monitor and support the use of the infusion.

## 5. Clinical decision making –

**Review all interventions in the best interest of the person at this moment in time**

Have the following been assessed and discontinued if inappropriate / causing harm?

|                          | N/A | Continued | Discontinued | Commenced |
|--------------------------|-----|-----------|--------------|-----------|
| Routine blood tests      |     |           |              |           |
| Antibiotics              |     |           |              |           |
| Blood glucose monitoring |     |           |              |           |
| Recording vital signs    |     |           |              |           |
| Oxygen therapy           |     |           |              |           |

Person's Name:

Hospital / Hospice No:

Sticker

### Cardio-Pulmonary resuscitation

|                                                                              | YES | NO | Not Appropriate |
|------------------------------------------------------------------------------|-----|----|-----------------|
| Have the issues been considered?                                             |     |    |                 |
| Is a Comfort Care Only / Allow Natural Death (AND) order in place?           |     |    |                 |
| Has it been discussed with the person?                                       |     |    |                 |
| Has it been discussed with the Relative / carer?                             |     |    |                 |
| If in place, the implantable Cardioverter Defibrillator (ICD) is deactivated |     |    |                 |
| Has this been discussed with Person / Relative?                              |     |    |                 |
|                                                                              |     |    | Details         |
| The person's skin integrity, mouth care and hygiene needs has been assessed  |     |    |                 |
| If bed sore present: site(s), size, grades 1 - 2 - 3 - 4                     |     |    |                 |

### 6. The person's need for nutrition is assessed and reviewed

Does the person need Clinically Assisted (artificial) Nutrition (CAN)?

Continued ☐ Discontinued ☐ Not required ☐

If already in place, which route? NG/RT ☐ PEG/PJ ☐ NJ ☐ TPN ☐

As appropriate, discussed with person / relative / carer

### 7. The person's need for fluids is assessed and reviewed

Does the person need Clinically Assisted (artificial) Hydration (CAH)?

Continued ☐ Discontinued ☐ Not required ☐

If already in place, which route? IV ☐ SC ☐ NG/RT ☐ PEG/ PJ ☐

As appropriate, discussed with person / relative / Carer?

Person's Name:

Hospital / Hospice No:

Sticker

## 8. Communication regarding the current Care Plan

|                                                                                 | YES | NO | Not Appropriate |
|---------------------------------------------------------------------------------|-----|----|-----------------|
| A full explanation of the care plan has been given to the person                |     |    |                 |
| Is the person aware that good nursing and medical care will continue?           |     |    |                 |
| A full explanation of the care plan has been given to the relative / carer?     |     |    |                 |
| A leaflet is given to the carers explaining what changes may occur before death |     |    |                 |
| The referring medical team is aware that the person is dying                    |     |    |                 |

### Additional information

Have the person / family / carers been given the opportunity to express their concerns?

Do we know the preferred place of death?

Y ☐ N ☐

In Hospital / Hospice? ☐

At home? ☐

Elsewhere? ☐

Are there any arrangements / decisions in place following death?

E.g.: burial / cremation / special requests – embalming / organ donation, etc

Any other comments / observations of note?

## SECTION 1: INITIAL ASSESSMENT – PROGRESS NOTES

|                                                                          |           |
|--------------------------------------------------------------------------|-----------|
| Record significant events / conversations / medical review / 2nd opinion | Signature |
|                                                                          |           |
|                                                                          |           |
|                                                                          |           |
|                                                                          |           |

## Protocol for ongoing assessment of End of Life Care Needs (Annexure 5B)

### SECTION 2: ONGOING ASSESSMENT OF THE CARE PLAN

Date:

Day:

Undertake a Team review of this plan if at any time there is an improvement in

- Conscious level,
- Functional ability, oral intake, mobility, or ability to perform self-care or
- Concerns expressed regarding the management plan from either person, carer or team

This plan must be reviewed daily by one of the end of life care trained doctors

Sign (at the bottom) during each assessment– a signature indicates the patient was assessed as given below:

Yes (achieved) = Y ☐

No (not achieved) = N ☐

If the outcome was not achieved, then an explanation / comment will be recorded on the progress notes (overleaf).

| Timings:                                                                                      |  |  |  |  |  |  |
|-----------------------------------------------------------------------------------------------|--|--|--|--|--|--|
| The person does not have pain                                                                 |  |  |  |  |  |  |
| The person is not agitated                                                                    |  |  |  |  |  |  |
| The person does not have respiratory tract secretions                                         |  |  |  |  |  |  |
| The person does not have nausea                                                               |  |  |  |  |  |  |
| The person is not vomiting                                                                    |  |  |  |  |  |  |
| The person is not breathless                                                                  |  |  |  |  |  |  |
| The person does not have urinary problems                                                     |  |  |  |  |  |  |
| The person does not have bowel problems<br>(bowels last opened: _____)                        |  |  |  |  |  |  |
| The person does not have other symptoms<br>If present record: _____                           |  |  |  |  |  |  |
| The person's comfort & safety regarding the administration of medication is maintained        |  |  |  |  |  |  |
| The person receives food and fluids to support their individual needs                         |  |  |  |  |  |  |
| The person's mouth is moist and clean                                                         |  |  |  |  |  |  |
| The person's skin integrity is maintained                                                     |  |  |  |  |  |  |
| The person's personal hygiene needs are met                                                   |  |  |  |  |  |  |
| The person receives care in a physical environment adjusted to support their individual needs |  |  |  |  |  |  |
| The person's psychological wellbeing is maintained                                            |  |  |  |  |  |  |
| The person's spiritual wellbeing is maintained                                                |  |  |  |  |  |  |
| The well-being of the relative/carer attending to the dying person is maintained              |  |  |  |  |  |  |
| Signature of nurse:<br>(each assessment)                                                      |  |  |  |  |  |  |
| Person's Name:<br>Hospital / Hospice No: <span style="float: right;">Sticker</span>           |  |  |  |  |  |  |

**Progress Notes:**

Record here any comments or observations, particularly if goals are not achieved.

Also, any significant events or conversations with clinical staff or carers /medical review.

[illegible]

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## Death declaration protocol (Annexure 5C)

| Death Declaration Standards |                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | Description                                                                                                                                                       | Minimum Acceptable Clinical Standard                                                                                                                                                                                                                                                                                                                                                                                                                                  | Beyond the Minimum Clinical Standard<br>Additional Testing                                                                                                                                                                                                                                                                                                                                              |
| C-1                         | Cessation of circulation and breathing                                                                                                                            | <ol style="list-style-type: none"> <li>1. Absent palpable pulse</li> <li>2. Absent breath sounds</li> <li>3. Absent heart sounds</li> <li>4. Absent respiratory effort or chest wall motion</li> <li>5. Loss of pulsatile arterial blood pressure by non-invasive measurement</li> <li>6. Coma and fixed dilated pupils</li> <li>7. Electrical asystole is not required (pulseless electrical activity is acceptable).</li> </ol>                                     | <ol style="list-style-type: none"> <li>1. Loss of pulsatile arterial blood pressure by arterial line monitoring</li> <li>2. Absence of anterograde blood flow through the aortic valve on echocardiography,</li> <li>3. Isoelectric ECG,</li> <li>4. Absence of pulse by Doppler</li> </ol> <p>NB: oxygen saturation pulse oximetry is an unreliable indicator of absence of pulsatile circulation.</p> |
| C-2                         | Cessation of circulation and breathing with no possibility to resume spontaneously<br><br>**(C-2.2 is not applicable for patients' on BLUE MAPLE; proceed to C-3) | <ol style="list-style-type: none"> <li>1. The persistence of C-1 criteria over a period of time as confirmed by continuous observation and intermittent confirmation including repetition of this evaluation at the end of the period. The time period required is 2-5 min.</li> <li>2. When breathing and circulation ceases following terminated CPR, the time period to reach the point of "no possibility to resume spontaneously" increases to 7 min.</li> </ol> | <ol style="list-style-type: none"> <li>1. Use of the same tests for a higher clinical/ laboratory standard for C-1 applied after the time interval required to progress from C-1 to C-2 (2-5 min or 7 min following termination of CPR).</li> </ol>                                                                                                                                                     |
| C-3                         | Cessation of circulation and breathing with no possibility to resume                                                                                              | <ol style="list-style-type: none"> <li>1. When CPR will not be provided, (patient fulfils criteria for not providing CPR) C-3 occurs at the moment of C-2.</li> <li>2. Following termination of CPR, including a decision not to reinstitute CPR, C-3 and C-2 occur at the same time.</li> </ol>                                                                                                                                                                      | <ol style="list-style-type: none"> <li>1. Nothing in addition to those tests required for C-2.</li> </ol>                                                                                                                                                                                                                                                                                               |



Source:

[Shemie, S. D., Hornby, L., Baker, A., Teitelbaum, J., Torrance, S., Young, K., Capron, A. M., Bernat, J. L., Noel, L., The International Guidelines for Determination of Death phase 1 participants, in collaboration with the World Health Organization (2014). International guideline development for the determination of death. Intensive care medicine, 40(6), 788-97.]

|                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I, Dr ..... , working in the department of ..... have examined the patient ..... , bearing hospital number ..... . On examination I have noted following findings .....<br>.....<br>.....<br>.....that verifies that the patient ..... died on.....(date).....<br>.....at.....(time)..... |
| Signature                                                                                                                                                                                                                                                                                 |
| Name                                                                                                                                                                                                                                                                                      |
| Seal                                                                                                                                                                                                                                                                                      |

#### Brain Stem Death Declaration Protocol (Annexure 5D)

The Brain Stem Death Declaration Protocol is according to the Organ Transplant Act of India and a resource for the same can be found in the article cited below

[Ganapathy K. Brain death revisited. Neurol India 2018;66:308-15]

<http://www.neurologyindia.com/text.asp?2018/66/2/308/227287>

#### After Death Care protocol (Annexure 5E)

##### CARE AFTER DEATH

##### Verification of death

There have been none of the vital signs below for .....minutes

- No signs of spontaneous respiration ☐
- No palpable pulses, carotid, femoral or radial ☐
- The pupils are fixed and widely dilated ☐
- No heart sounds ☐

Date of Death:

Recorded time of death:

Death verified by:

Name:

|                                                            |                                                       |
|------------------------------------------------------------|-------------------------------------------------------|
| Staff members present at time of death:                    |                                                       |
| Relatives or Carers present:                               |                                                       |
| If not, has anyone been notified?                          | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Name of person informed:                                   |                                                       |
| Relationship to deceased:                                  |                                                       |
| Contact number:                                            |                                                       |
| Was it a good and peaceful death?                          |                                                       |
| Staff:                                                     | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Family:                                                    | Y <input type="checkbox"/> N <input type="checkbox"/> |
| As per family feedback                                     | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Remarks:                                                   |                                                       |
| Are the police likely to be involved?                      |                                                       |
|                                                            | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Does the person have a pacemaker /ICD?                     |                                                       |
|                                                            | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Care of the body:                                          |                                                       |
| Performed according to Institutional policy with regard to |                                                       |
| • Treated with respect and dignity                         | Y <input type="checkbox"/> N <input type="checkbox"/> |
| • Procedures and packing (including infection risk)        | Y <input type="checkbox"/> N <input type="checkbox"/> |
| • Cultural rituals / Spiritual / Religious needs met?      | Y <input type="checkbox"/> N <input type="checkbox"/> |
| • Person's valuables and belongings                        | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Carers and Relatives given:                                |                                                       |
| • Information on next steps required                       | Y <input type="checkbox"/> N <input type="checkbox"/> |
| • Information on ongoing bereavement support               | Y <input type="checkbox"/> N <input type="checkbox"/> |
| • Death Certificate / relevant paperwork                   | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Body handed over to:                                       |                                                       |
| Date:                                                      | Time:                                                 |
| Referring Dr / person informed of person's death?          | Y <input type="checkbox"/> N <input type="checkbox"/> |
| Relevant services - MRD / MIS informed of person's death   | Y <input type="checkbox"/> N <input type="checkbox"/> |

### Section 3: Care after Death: any additional information

[illegible]







# KASTURBA HOSPITAL MANIPAL

*(Teaching hospital of KMC Manipal, a unit of MAHE)*

Madhav Nagar, Manipal - 576 104

Udupi District, Karnataka