AN EVIDENCE-BASED WARD HANDBOOK

ADVANCED CARDIAC LIFE SUPPORT

Through the Lens of the Bhagavad Gita

EVIDENCE-BASED TAKE-HOME MESSAGES

Eighteen chapters · AHA 2025 guidelines

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Karmanye vadhikaraste ma phaleshu kadachana

BHAGAVAD GITA 2.47

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A Ward Reference Handbook

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Advanced Cardiac Life Support Through the Lens of the Bhagavad Gita: Evidence-Based Take-Home Messages.

Ward Reference Edition. Prepared for the use of residents, registrars and nursing staff.

IMPORTANT NOTICE

This handbook is a teaching aid and an aide-memoire. It summarises guideline principles for rapid recall at the bedside and is not a substitute for the full American Heart Association and European Resuscitation Council guideline documents, nor for your own institution's approved protocols, drug formulary and standard operating procedures.

Always verify drug doses, energy settings and time targets against your local protocol and the current product literature before administration. Clinical decisions remain the responsibility of the treating clinician.

The verses of the Bhagavad Gita are presented in Roman transliteration with working English renderings, for reflective and educational purposes.

Preface

The Bhagavad Gita is not merely a spiritual scripture; it is a timeless treatise on decision-making under extreme uncertainty. The Emergency Room is its modern battlefield, where physicians, like Arjuna, must act decisively, compassionately, and without certainty of outcome. When I began compiling this book, setting chapters drawn from my own experience of performing CPR under a defined protocol of resuscitation alongside the chapters of the Bhagavad Gita, I came across a profound similarity. The physician in the Emergency Room, like Arjuna on the battlefield, must unite wisdom with action, compassion with competence, and effort with humility.

The mental divide experienced by Arjuna is purposeful uncertainty combined with complete commitment to action. At the beginning of the Gita, Arjuna experiences vishada (existential despair). However, as he listens to Lord Krishna, he enters a transitional state: emotionally overwhelmed, intellectually questioning, spiritually receptive, ethically conflicted, yet willing to listen. This is not blind faith. It is critical faith — questioning while remaining open to wisdom. A state of complete action under complete uncertainty.

Resuscitative consciousness is a mental state in which a physician combines scientific precision, moral courage, compassionate commitment, and humble acceptance of uncertainty while striving to save a life. The Arjuna State of Resuscitation is the psychological, ethical and spiritual condition experienced by a physician during life-saving resuscitation, characterised by complete technical competence, unwavering compassion, profound humility, openness to guidance beyond oneself, and total commitment to action despite uncertainty of outcome.

The physician during CPR enters a remarkably similar state, bringing to it scientific knowledge, years of training, ACLS algorithms well practised and rehearsed both in life and in the simulation laboratory, and the support of an excellent team. The emergency physician's dharma is a state in which one acts without attachment to outcome, yet with absolute dedication to the patient.

Every cardiac arrest has two patients: one lying on the stretcher, and one standing beside it. The emergency physician and the protocols of ACLS resuscitate the patient in a standard format; the Bhagavad Gita steadies the physician. Yet there comes a moment when the advancement of medical care reaches its limit — and in every part of the world, whether a facility with frugal resources or a rich, high-end tertiary care hospital, that limit exists. The doctor silently thinks: "Have I done everything possible?" Then another thought appears: "Please let this patient survive." At that instant, something fascinating happens. The physician does not surrender responsibility. Instead, he gives two hundred per cent effort while simultaneously acknowledging that the final outcome is beyond human control. This is neither superstition nor defeat. It is humility.

And an active surrender takes place. Not giving up. Giving everything, while accepting that results belong to something greater. This mirrors Krishna's teaching: "You have

control over action alone, never over its fruits." Modern psychology describes experts as those who recognise the limits of their own knowledge. Great physicians eventually understand: "I control the process. I never completely control life." During CPR, many physicians report entering a state in which time slows, distractions disappear, only the patient exists, and the ego dissolves; this is a confrontation with mortality. The physician brings knowledge, skill, discipline and compassion to the bedside, while recognising that the final outcome is not entirely under human control. That combination of scientific excellence, ethical duty and humility may be one of the deepest common threads between Arjuna on the battlefield and a doctor in the emergency room or performing life-saving procedures.

Hence this book combines the timeless wisdom of the Bhagavad Gita with the evidence-based science of modern resuscitation to bring you Advanced Cardiac Life Support Through the Lens of the Bhagavad Gita — where clinical excellence meets inner wisdom, and compassionate action transcends uncertainty.

This is more than a resuscitation textbook; it is a guide to resuscitating the physician within, while striving to resuscitate the patient before you.

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Reading the page

Every chapter is set out in the same four movements, so that you can find what you need without reading from the beginning.

KEY GUIDELINES

The clinical core. Five numbered points carrying the parameters, doses, energies and time targets you are expected to know at the bedside. Read these first in an emergency; the rest can wait.

BHAGAVAD GITA TEACHING

A verse in transliteration with its English rendering, set in the shaded panel. It frames the discipline the clinical task demands.

APPLICATION

One paragraph translating the verse into behaviour at the bedside — what it asks of the person holding the paddles, the airway or the pen.

THE INTEGRATION

The reflective essay that binds the two. Best read off-duty, or in the quiet after a debrief.

A quick-numbers appendix at the back gathers every dose, energy level and time target in the book onto four pages, indexed by chapter.

Contents

CHAPTER 1

The Foundation of High-Quality CPR

KEY 2025 AHA GUIDELINES

1. **Compression parameters —** Rate 100–120/min, depth 2–2.4 inches (5–6 cm) for adults with full chest recoil
2. **Minimize interruptions —** Hands-off time <10 seconds; continuous compressions during rhythm analysis with newer defibrillators
3. **Real-time feedback devices —** Strongly recommended for both training and clinical performance to optimize rate, depth, and recoil
4. **Early defibrillation —** Remains critical alongside CPR for VF/pVT survival
5. **Physiologic monitoring —** Use $ETCO_2$ (>10 mmHg target) and arterial pressure monitoring to assess CPR quality

BHAGAVAD GITA TEACHING

> **VERSE 2.47**
>
> *Karmanye vadhikaraste ma phaleshu kadachana, Ma karma phala hetur bhurma te sango 'stv akarmani*
>
> "You have the right to perform your duty, but not to the fruits thereof. Never consider yourself the cause of results, nor be attached to inaction."

Application The rescuer must focus entirely on performing perfect compressions—the right depth, rate, and recoil—without being distracted by outcome anxiety. This verse teaches detachment from results while maintaining complete dedication to action.

THE INTEGRATION

High-quality CPR requires the rescuer to be fully present in each compression, maintaining perfect technique without mental distraction about survival statistics or outcome. Like Krishna's teaching, we must perform our duty (dharma) as healthcare providers with complete focus and technical precision, understanding that outcomes depend on multiple factors beyond our control. The feedback devices serve as our guru, providing real-time guidance to perfect our technique. This integration prevents both complacency (attachment to inaction) and paralysis from outcome anxiety, enabling optimal performance.

CHAPTER 2

Team Dynamics and Leadership in Resuscitation

KEY 2025 AHA GUIDELINES

1. **Closed-loop communication —** Verbal confirmation of all orders and actions to prevent errors
2. **Clear role assignment —** Every team member knows their specific responsibility before the code
3. **Adaptive leadership —** Leaders must recognize when to delegate, take charge, or step back
4. **Situational awareness —** Anticipating needs before they arise; maintaining the "big picture"
5. **Debriefing —** Post-resuscitation team debriefing improves future performance and processes

BHAGAVAD GITA TEACHING

> **VERSE 3.21**
>
> *Yad yad acharati shreshthas tat tad evetaro janah, Sa yat pramanam kurute lokas tad anuvartate*
>
> "Whatever actions great persons perform, common people follow. Whatever standards they set, the world follows."

Application The team leader sets the tone for the entire resuscitation through their composure, clarity, and competence. Leadership is not about authority but about exemplary conduct.

THE INTEGRATION

Effective code leadership mirrors Krishna's teaching about leading by example. The leader must embody calmness under pressure, clear communication, and respectful delegation—qualities that naturally inspire the team to perform optimally. When the leader maintains composure and follows protocols meticulously, the entire team synchronizes. The 2025 emphasis on adaptive leadership aligns with the Gita's teaching that wisdom lies in knowing when to act decisively and when to empower others. Post-code debriefing becomes a form of svadhyaya (self-study), allowing the team to learn without blame, growing collectively in skill and understanding.

CHAPTER 3

Recognition of Cardiac Arrest Rhythms

KEY 2025 AHA GUIDELINES

1. **Rapid rhythm identification —** Distinguish shockable (VF/pVT) from non-shockable (PEA/asystole) within 10 seconds
2. **Minimize rhythm check interruptions —** Limit checks to <10 seconds every 2 minutes
3. **Waveform capnography —** Continuous $ETCO_2$ monitoring can indicate rhythm changes without stopping CPR
4. **Quality over speed —** Accurate rhythm recognition prevents inappropriate shocks and guides proper algorithm
5. **Team rhythm announcement —** Leader clearly states rhythm and treatment plan using closed-loop communication

BHAGAVAD GITA TEACHING

> **VERSE 2.69**
>
> *Ya nisha sarva-bhutanam tasyam jagarti samyami, Yasyam jagrati bhutani sa nisha pashyato muneh*
>
> "What is night for all beings is the time of awakening for the self-controlled; and what is the time of awakening for all beings is night for the introspective sage."

Application The skilled clinician sees what others miss—the subtle differences in rhythm morphology, the pattern suggesting underlying cause. True perception requires disciplined focus.

THE INTEGRATION

Rhythm recognition requires the cultivated awareness that the Gita describes—seeing clearly when others are "blind." The 2025 guidelines emphasize rapid yet accurate identification, which demands a calm, focused mind free from panic or hasty judgment. Just as the sage sees truth while others see illusion, the trained resuscitator must perceive the true rhythm amidst the chaos of a code. The integration of continuous waveform capnography represents using all available "senses" (monitoring modalities) to perceive reality accurately. This chapter teaches that clinical perception is a form of spiritual practice—requiring discipline, training, and the ability to remain centered while chaos surrounds you.

CHAPTER 4

Shockable Rhythms – VF/Pulseless VT Management

KEY 2025 AHA GUIDELINES

1. **Early defibrillation —** First shock as soon as VF/pVT identified; critical for survival
2. **Single shock strategy —** One shock followed immediately by CPR (rather than stacked shocks)
3. **Biphasic energy levels —** 120–200 J (device specific) for first shock; equivalent or higher for subsequent
4. **Minimizing pre-shock pause —** Charge during CPR when possible; <5 second pause ideal
5. **Antiarrhythmic —** Consider amiodarone 300 mg or lidocaine 1–1.5 mg/kg for refractory VF/pVT after first shock

BHAGAVAD GITA TEACHING

> **VERSE 2.48**
>
> *Yoga-sthah kuru karmani sangam tyaktva Dhananjaya, Siddhy-asiddhyoh samo bhutva samatvam yoga uchyate*
>
> "Perform your duty with equipoise, O Arjuna, abandoning attachment to success or failure. Such equanimity is called Yoga."

Application The moment of defibrillation requires complete equanimity—we shock with full commitment but without attachment to whether this particular shock succeeds.

THE INTEGRATION

Defibrillation is the most dramatic intervention in resuscitation—a moment when electricity meets flesh to restart life. The 2025 guidelines emphasize technical precision: proper energy, minimal pause, immediate resumption of CPR. But success requires more than technique. The Gita teaches us to perform the action (shocking) with full dedication while remaining emotionally balanced about the outcome. This prevents two common errors: hesitating to shock (attachment to failure/fear) or celebrating prematurely after ROSC (attachment to success). The phrase "yoga-sthah kuru karmani" (established in yoga, perform action) perfectly describes the ideal state—grounded, centered, ready to deliver the shock and immediately resume compressions, regardless of rhythm response. Multiple shocks may be needed; each requires the same focused equanimity.

CHAPTER 5

Non-Shockable Rhythms – PEA and Asystole

KEY 2025 AHA GUIDELINES

1. **High-quality CPR is primary treatment —** No shock indicated; focus entirely on compression quality
2. **Systematic H's and T's search —** Hypoxia, Hypovolemia, Hydrogen ion (acidosis), Hypo/Hyperkalemia, Hypothermia; Tension pneumothorax, Tamponade, Toxins, Thrombosis (coronary/pulmonary)
3. **Point-of-care ultrasound —** Valuable for identifying reversible causes (tamponade, PE, hypovolemia)
4. **Epinephrine timing —** 1 mg IV/IO every 3–5 minutes; earlier administration may improve outcomes
5. **Consider thrombolytics —** For suspected/confirmed PE causing cardiac arrest

BHAGAVAD GITA TEACHING

> **VERSE 18.78**
>
> *Yatra yogeshvarah krishno yatra partho dhanur-dharah, Tatra shrir vijayo bhutir dhruva nitir matir mama*
>
> "Wherever there is Krishna, the lord of yoga, and wherever there is Arjuna, the wielder of the bow, there will surely be fortune, victory, prosperity, and sound judgment."

Application In PEA/asystole—the most challenging arrests—success requires the combination of technique (Arjuna's bow) and wisdom (Krishna's guidance). We must search systematically for the reversible cause.

THE INTEGRATION

PEA and asystole represent the ultimate test of clinical wisdom and persistence. Unlike VF/pVT where we can shock, here we must be detectives, methodically searching for the underlying pathology while maintaining perfect CPR. The Gita verse reminds us that victory comes from combining skill (technical excellence in compressions, airway, access) with discernment (systematically evaluating H's and T's). Krishna's "yoga" represents the 2025 emphasis on systematic approach and POCUS, while Arjuna's "bow" symbolizes our interventions—each compression, each dose of epinephrine, each corrective action. The promise of "dhruva nitir" (sound judgment) encourages us to think clearly even in these seemingly hopeless rhythms. Many PEA arrests are reversible if we find the cause; our dharma is to search systematically rather than mechanically continuing futile CPR.

CHAPTER 6

Airway Management and Oxygenation

KEY 2025 AHA GUIDELINES

1. **Bag-mask ventilation adequacy —** Often sufficient; avoid rush to intubation during active CPR
2. **Advanced airway timing —** Consider after initial interventions if bag-mask ineffective; don't interrupt CPR
3. **Continuous waveform capnography —** Mandatory to confirm and monitor advanced airway placement
4. **Ventilation rate post-airway —** 10 breaths/min (1 breath every 6 seconds); avoid hyperventilation
5. **Supraglottic airways —** Acceptable alternative when intubation expertise unavailable or difficult

BHAGAVAD GITA TEACHING

> **VERSE 6.19**
>
> *Yatha dipo nivata-stho nengate sopama smrita, Yogino yata-chittasya yunjato yogam atmanah*
>
> "As a lamp in a windless place does not flicker, so the disciplined mind of a yogi remains steady in meditation on the Self."

Application Airway management requires the steady hand and unflickering focus described in this verse. Hasty or aggressive intubation attempts during CPR are like a lamp in wind—unstable and potentially harmful.

THE INTEGRATION

The 2025 guidelines' emphasis on not rushing to intubation reflects the Gita's teaching about steady, controlled action. Like the lamp that burns steadily only when protected from wind, the patient's oxygenation is best served by calm, measured airway management. Hyperventilation—a common error born from anxiety—is like the "flickering" the verse warns against; it increases intrathoracic pressure and reduces cardiac output. The disciplined provider maintains the steady rhythm: 10 breaths per minute post-airway, continuous compressions, constant monitoring via capnography. The integration teaches that in the midst of a code's chaos, the airway manager must be the "windless space"—calm, methodical, avoiding the temptation to over-intervene. Success comes not from aggressive action but from measured competence.

CHAPTER 7

Pharmacology in Cardiac Arrest

KEY 2025 AHA GUIDELINES

1. **Epinephrine dosing —** 1 mg IV/IO every 3–5 minutes for all arrest rhythms; earlier may be beneficial
2. **Amiodarone for VF/pVT —** 300 mg first dose, 150 mg second dose for refractory rhythms
3. **Lidocaine alternative —** 1–1.5 mg/kg initial, then 0.5–0.75 mg/kg (max 3 mg/kg) if amiodarone unavailable
4. **Avoid routine calcium/bicarbonate —** Only for specific indications (hyperkalemia, calcium channel blocker overdose)
5. **Drug delivery —** IV/IO equally effective; peripheral IV acceptable if rapid, followed by 20 mL flush and extremity elevation

BHAGAVAD GITA TEACHING

> **VERSE 2.50**
>
> *Buddhir-yukto jahatiha ubhe sukrita-dushkrite, Tasmad yogaya yujyasva yogah karmasu kaushalam*
>
> "A person endowed with wisdom casts off both good and evil deeds. Therefore, strive for yoga; yoga is skill in action."

Application Pharmacology requires "kaushalam" (skillfulness)—knowing not just what drugs to give, but when, how, and importantly, when NOT to give them.

THE INTEGRATION

The Gita's teaching about "skill in action" perfectly captures modern evidence-based pharmacology. We must abandon the old "good deed" mentality of "giving something" (like routine calcium or bicarbonate) without evidence, just as we must abandon the "evil" of under-treating when epinephrine or antiarrhythmics are truly indicated. The 2025 guidelines' specificity about dosing and timing represents "yoga in action"—skillful, measured, evidence-based interventions. The verse reminds us that true skill lies not in remembering drug names but in discerning when they help versus harm. Every drug has its proper time and indication; giving too much or too little both represent lack of skillfulness. The integration teaches that the wise provider follows the algorithm not mechanically but with understanding, recognizing that each patient requires individualized application of general principles.

CHAPTER 8

Post-Cardiac Arrest Care

KEY 2025 AHA GUIDELINES

1. **Targeted temperature management —** Avoid fever; consider 32–36°C for 24 hours in appropriate patients
2. **Hemodynamic optimization —** MAP ≥65 mmHg; individualize based on patient factors
3. **Oxygenation targets —** SpO_2 92–98%; avoid hyperoxia and hypoxia
4. **Ventilation control —** Target $PaCO_2$ 35–45 mmHg; avoid extremes
5. **Early coronary angiography —** Within 2 hours for STEMI or high suspicion of cardiac cause

BHAGAVAD GITA TEACHING

> **VERSE 6.16–17**
>
> *Yuktahara-viharasya yukta-cheshtasya karmasu, Yukta-svapnavabodhasya yogo bhavati duhkha-ha*
>
> "Yoga destroys sorrow for one who is moderate in eating and recreation, balanced in work, and regulated in sleep and wakefulness."

Application Post-arrest care is about balance and moderation in all parameters—temperature, oxygen, carbon dioxide, blood pressure. Extremes in any direction cause harm.

THE INTEGRATION

The Gita's emphasis on "yukta" (balance/moderation) in all aspects of life directly parallels the 2025 post-arrest guidelines, which consistently warn against extremes. Just as the yogi maintains balance in diet, activity, and rest, the post-arrest patient needs balanced management: not too hot, not too cold; not too much oxygen, not too little; not hypertensive, not hypotensive. The integration reveals that the principle underlying all post-resuscitation care is homeostasis—the "middle path." Historically, we've swung between extremes (deep hypothermia vs. normothermia, high oxygen vs. restriction), but evidence now supports moderation. This chapter teaches that the period after ROSC is like the sadhana (spiritual practice) after awakening—it requires careful, balanced attention to prevent regression. The "duhkha-ha" (destruction of suffering) comes not from aggressive extremes but from mindful optimization of all parameters.

CHAPTER 9

Bradycardia Management

KEY 2025 AHA GUIDELINES

1. **Symptom assessment first —** Treat symptomatic bradycardia (hypotension, altered mental status, chest pain, acute heart failure)
2. **Atropine initial treatment —** 1 mg IV (may repeat, max 3 mg) for symptomatic bradycardia
3. **Transcutaneous pacing —** Immediate for high-degree blocks or atropine failure; don't delay for medications
4. **Dopamine/epinephrine infusions —** 2–20 mcg/kg/min (dopamine) or 2–10 mcg/min (epinephrine) as temporizing measure
5. **Identify reversible causes —** Medications, ischemia, electrolytes before definitive pacing

BHAGAVAD GITA TEACHING

> **VERSE 2.14**
>
> *Matra-sparshas tu kaunteya shitoshna-sukha-duhkha-dah, Agamapayino 'nityas tams titikshasva bharata*
>
> "The contact of senses with objects gives rise to heat and cold, pleasure and pain. These are temporary and fleeting; endure them patiently, O Bharata."

Application Not every bradycardia requires treatment. We must distinguish between discomfort (temporary, tolerable) and true threat (symptomatic, requiring intervention).

THE INTEGRATION

The wisdom of this verse—distinguishing between transient discomfort and true suffering—guides our approach to bradycardia. The 2025 guidelines emphasize treating symptoms, not numbers. A heart rate of 45 in a comfortable, normotensive patient is like the temporary "heat and cold" the Gita mentions—unpleasant perhaps, but not requiring aggressive intervention. However, when bradycardia causes true suffering (hypotension, ischemia, altered consciousness), we must act decisively with atropine or pacing. The integration teaches discernment: the immature clinician treats all slow heart rates; the wise clinician assesses whether the patient is truly suffering. "Titikshasva" (endure patiently) applies to both patient and provider—sometimes the best treatment is watchful waiting, allowing the body's wisdom to prevail. But when intervention is needed, we act swiftly and decisively.

CHAPTER 10

Tachycardia with Pulse

KEY 2025 AHA GUIDELINES

1. **Stability assessment —** Determine if unstable (immediate cardioversion) vs. stable (medical management)
2. **QRS width classification —** Narrow (<0.12 s) vs. wide (≥0.12 s) guides specific treatment
3. **Vagal maneuvers first —** For regular narrow-complex tachycardia; modified Valsalva superior to standard
4. **Adenosine for SVT —** 6 mg rapid IV push, then 12 mg if needed (after vagal maneuvers fail)
5. **Synchronized cardioversion —** Energy 50–100 J for atrial flutter, 100–200 J for other SVT/VT; increase stepwise if needed

BHAGAVAD GITA TEACHING

> **VERSE 6.5**
>
> *Uddhared atmanatmanam natmanam avasadayet, Atmaiva hy atmano bandhur atmaiva ripur atmanah*
>
> "Elevate yourself through your own effort; do not degrade yourself. The self is the friend of the self, and the self is the enemy of the self."

Application In tachycardia, the heart has become its own enemy, racing beyond its sustainable capacity. Our intervention helps the heart return to its natural rhythm—becoming its own friend again.

THE INTEGRATION

This profound verse about self-regulation applies beautifully to tachycardia management. The rapid heart has become "atma ripu" (enemy to itself)—consuming oxygen faster than supply, potentially decompensating into arrest. The 2025 guidelines provide a systematic ladder of interventions: first, the gentlest approach (vagal maneuvers—the heart helping itself); then medications (external assistance); finally cardioversion (decisive external intervention). This mirrors the spiritual path: we first try self-effort, then seek guidance, then sometimes require dramatic intervention. The integration teaches that our role is to help the heart "uddhared atmanatmanam" (elevate itself through itself)—restore its natural rhythm. The modified Valsalva technique represents the "atma bandhu" (self as friend)—using the patient's own physiology to break the tachycardia. When that fails, we provide progressively more aggressive help, but always with the goal of restoration, not domination.

CHAPTER 11

Acute Coronary Syndromes

KEY 2025 AHA GUIDELINES

1. **Early aspirin administration —** 162–325 mg chewed; give to all suspected ACS
2. **Reperfusion time targets —** PCI within 90 minutes (first medical contact to balloon); fibrinolysis within 30 minutes if PCI unavailable
3. **Antiplatelet therapy —** P2Y12 inhibitor (clopidogrel, ticagrelor, or prasugrel) in addition to aspirin
4. **High-intensity statin —** Start immediately for all ACS patients
5. **Risk stratification —** GRACE or TIMI score guides invasive vs. conservative strategy

BHAGAVAD GITA TEACHING

> **VERSE 3.8**
>
> *Niyatam kuru karma tvam karma jyayo hy akarmanah, Sharira-yatra pi cha te na prasiddhyed akarmanah*
>
> "Perform your prescribed duty, for action is better than inaction. Even the maintenance of your body would not be possible through inaction."

Application In ACS, time is muscle. The prescribed duty is immediate, systematic action—every minute of delay increases myocardial necrosis. Inaction here is truly harmful.

THE INTEGRATION

The urgency in this verse—"perform your prescribed duty now"—perfectly captures the time-sensitive nature of ACS management. The 2025 guidelines' strict time targets (90 minutes to PCI, 30 minutes to fibrinolysis) reflect the teaching that "karma jyayo hy akarmanah" (action is superior to inaction). Just as the Gita warns that even bodily maintenance requires action, the guidelines emphasize that myocardial salvage requires immediate intervention. The integration teaches that in ACS, our dharma is clear and urgent: aspirin, antiplatelet, reperfusion—each action prescribed and necessary. Hesitation, over-deliberation, or waiting for "perfect" conditions all constitute "akarmanah" (inaction) and result in muscle death. Yet this urgency must be balanced with systematic approach—acting quickly but not recklessly, following the algorithm while individualizing care. The chapter integrates the lesson that sometimes spiritual practice means decisive, immediate action in the face of crisis.

CHAPTER 12

Stroke Recognition and Management

KEY 2025 AHA GUIDELINES

1. **Time-critical assessment —** "Time is brain"—rapid stroke scale (NIHSS or RACE) within 10 minutes of arrival
2. **Imaging immediately —** Non-contrast CT or MRI to exclude hemorrhage before thrombolysis
3. **Thrombolysis window —** tPA within 4.5 hours of last known well for eligible patients
4. **Thrombectomy consideration —** Up to 24 hours for large vessel occlusion in selected patients
5. **Blood pressure management —** Permissive hypertension unless >220/120 or patient eligible for thrombolysis

BHAGAVAD GITA TEACHING

> **VERSE 10.33**
>
> *Mrityuh sarva-harash chaham udbhavash cha bhavishyatam, Kirtih shrir vak cha narinam smritir medha dhritih kshama*
>
> "Among things that bring an end, I am death; among things to be, I am the origin. Among women's qualities, I am fame, prosperity, speech, memory, intelligence, steadfastness, and forgiveness."

Application Stroke threatens the very qualities Krishna lists as divine feminine virtues—speech (vak), memory (smritir), intelligence (medha), steadfastness (dhritih). Our intervention preserves these human capacities.

THE INTEGRATION

This verse's reference to memory, speech, and intelligence—precisely what stroke threatens—reminds us of the profound implications of our intervention. The 2025 guidelines' emphasis on "time is brain" reflects the understanding that every minute, neurons die, and with them, the patient's capacity for the higher functions Krishna describes. The integration is deeply humanistic: we're not just treating a "blocked artery" but preserving a person's ability to speak with loved ones (vak), remember their life (smritir), think and reason (medha), and maintain their essential personhood. The strict time windows aren't arbitrary—they represent the boundary between restoration and permanent loss of these divine qualities. This chapter teaches that neurological emergencies require the same reverential urgency we'd bring to protecting a sacred temple, because the human brain houses consciousness itself. Our rapid systematic approach becomes an act of preserving divine potential.

CHAPTER 13

Effective Communication During Codes

KEY 2025 AHA GUIDELINES

1. **Closed-loop communication —** Receiver repeats order back before acting
2. **Clear, directive language —** Specific commands without ambiguity ("You—start compressions")
3. **Regular team updates —** Leader provides periodic summaries of time elapsed, interventions given, rhythm
4. **Constructive intervention —** Team members can question orders respectfully if concerned
5. **Avoid chaos —** One leader speaks at a time; directed questions rather than group discussions

BHAGAVAD GITA TEACHING

> **VERSE 17.15**
>
> *Anudvega-karam vakyam satyam priya-hitam cha yat, Svadhyayabhyasanam chaiva van-mayam tapa uchyate*
>
> "Speech that is non-agitating, truthful, pleasant, and beneficial, along with regular study of scriptures, constitutes austerity of speech."

Application Code communication must be truthful (accurate), beneficial (purposeful), and non-agitating (calm, clear). This is the "austerity of speech" required in crisis.

THE INTEGRATION

The Gita's teaching on "van-mayam tapa" (austerity of speech) provides the philosophical foundation for 2025's emphasis on closed-loop communication. During a code, every word must be "satyam" (truthful/accurate), "hitam" (beneficial/purposeful), and "anudvega-karam" (non-agitating/calm). Unnecessary chatter, raised voices, or ambiguous commands violate this principle and harm the resuscitation. The integration teaches that effective code communication is a spiritual practice—requiring discipline to speak only what's necessary, restraint from emotional reactivity, and commitment to clarity over self-expression. When the leader says "You—start compressions" and the receiver confirms "Starting compressions," this closed-loop exchange embodies the verse's teaching: truthful (accurately describing the action), pleasant (respectful tone), beneficial (confirms understanding), and non-agitating (reduces confusion). The chapter reveals that mastering crisis communication is not just a skill but a form of tapas (spiritual discipline).

CHAPTER 14

Ethical Considerations in Resuscitation

KEY 2025 AHA GUIDELINES

1. **Advance directives —** Honor documented wishes; POLST/MOLST forms legally binding
2. **Futility recognition —** Discontinue when no reasonable hope of meaningful recovery
3. **Family presence —** Facilitate when possible; assign staff member to support them
4. **Cultural sensitivity —** Respect diverse beliefs about death and dying
5. **Shared decision-making —** Involve family in goals of care discussions post-ROSC

BHAGAVAD GITA TEACHING

> **VERSE 2.27**
>
> *Jatasya hi dhruvo mrityur dhruvam janma mritasya cha, Tasmad apariharye 'rthe na tvam shochitum arhasi*
>
> "For one who has taken birth, death is certain; and for one who has died, birth is certain. Therefore, you should not grieve over the inevitable."

Application While we fight for life, we must accept that death is natural and sometimes appropriate. Not every arrest should be treated aggressively; honoring the patient's journey includes honoring their end.

THE INTEGRATION

This verse provides profound ethical grounding for end-of-life decisions in resuscitation. The 2025 guidelines' emphasis on honoring advance directives and recognizing futility reflects the Gita's teaching about accepting death's inevitability. The integration isn't about giving up—it's about wisdom in distinguishing between prolonging life and prolonging death. When a patient has documented their wishes not to be resuscitated, honoring that choice respects their autonomy and life's natural cycle ("dhruvo mrityur"—death is certain). The chapter teaches that true medical excellence includes knowing when to stop, when aggressive intervention violates the patient's values or simply delays the inevitable. Family presence during codes represents the "na tvam shochitum" (do not grieve inappropriately)—allowing natural grief while providing support. The integration of this verse creates compassionate, patient-centered resuscitation practice that neither abandons patients who could benefit nor traumatizes those for whom intervention is unwanted or futile.

CHAPTER 15

Managing Stress and Preventing Burnout

KEY 2025 AHA GUIDELINES

1. **Regular debriefing —** After codes to process emotions and improve technique
2. **Peer support programs —** Formal systems for providers to discuss difficult cases
3. **Stress recognition —** Training to identify signs of acute stress reactions in self and colleagues
4. **Wellness resources —** Access to counseling, support groups, mindfulness training
5. **Organizational responsibility —** Healthcare systems must provide resources and time for provider wellbeing

BHAGAVAD GITA TEACHING

> **VERSE 6.16**
>
> *Naty-asnatas 'tu yogo 'sti na caikantam anasnatah, Na cati-svapna-shilasya jagrato naiva charjuna*
>
> "O Arjuna, yoga is not for one who eats too much or too little, who sleeps too much or too little."

Application Sustainable excellence in emergency medicine requires balance—in work hours, emotional investment, self-care. Extremes in any direction lead to burnout.

THE INTEGRATION

The Gita's teaching about balance in all things directly addresses the burnout epidemic in healthcare. Resuscitation providers often fall into extremes: working excessive hours (atyashnatah—consuming too much), or emotionally disengaging as protection (aikantam anasnatah—complete abstinence). The 2025 guidelines' recognition that organizational support for wellness is essential reflects the verse's wisdom that sustainable practice requires moderation. The integration teaches that you cannot serve others well if you neglect yourself—this isn't selfish, it's necessary. Just as the yogi must balance food, sleep, and activity, the resuscitation provider must balance clinical work with rest, emotional investment with healthy boundaries, professional dedication with personal life. Debriefing after codes becomes "svadhyaya" (self-study); peer support represents "sangha" (community); wellness resources are not luxuries but necessities for sustained practice. This chapter reframes self-care not as weakness but as dharma—we have a duty to maintain ourselves as effective instruments of healing.

CHAPTER 16

Continuous Learning and Quality Improvement

KEY 2025 AHA GUIDELINES

1. **Regular simulation training —** High-fidelity scenarios to maintain and improve skills
2. **Data tracking —** Monitor CPR metrics, time to interventions, survival outcomes
3. **Feedback devices —** Use in both training and real codes to optimize performance
4. **Algorithm updates —** Regular review of evolving evidence and guidelines
5. **Performance improvement projects —** Systematic analysis and enhancement of resuscitation programs

BHAGAVAD GITA TEACHING

> **VERSE 4.38**
>
> *Na hi jnanena sadrisham pavitram iha vidyate, Tat svayam yoga-samsiddhah kalenatmani vindati*
>
> "There is nothing as purifying as knowledge in this world. One who is perfected in yoga discovers this within themselves in due course of time."

Application True knowledge in resuscitation comes not just from initial training but from continuous practice and self-reflection over time. Mastery is a journey, not a destination.

THE INTEGRATION

This verse's teaching that knowledge unfolds over time through dedicated practice ("yoga-samsiddhah kalenatmani vindati") perfectly describes the 2025 emphasis on continuous learning. No single ACLS course makes one an expert; mastery emerges from repeated simulation, real-world experience, data review, and humble willingness to improve. The "jnanena pavitram" (purification through knowledge) occurs when we commit to lifelong learning—each code teaches something new, each simulation reveals areas for growth, each data review shows patterns. The integration teaches that treating continuous improvement as spiritual practice (yoga-samsiddah) transforms routine quality improvement into a path of growth. The feedback devices become our teachers, the metrics our mirrors, the guidelines our scriptures. This chapter reframes the 2025 requirement for regular training not as bureaucratic burden but as opportunity for progressive mastery, where each iteration purifies our understanding and refines our skill.

CHAPTER 17

Special Circumstances in Cardiac Arrest

KEY 2025 AHA GUIDELINES

1. **Pregnancy modifications —** Left uterine displacement during CPR; perimortem cesarean within 5 minutes if no ROSC
2. **Hypothermia —** Continue resuscitation until core temperature >32°C; prolonged efforts warranted
3. **Trauma-related arrest —** Focus on reversible causes—hemorrhage control, tension pneumothorax decompression
4. **Toxicological emergencies —** Specific antidotes (lipid emulsion for local anesthetic toxicity, sodium bicarbonate for TCA)
5. **Drowning —** Immediate rescue breathing; continue resuscitation longer than typical cardiac arrest

BHAGAVAD GITA TEACHING

> **VERSE 2.23**
>
> *Nainam chindanti shastrani nainam dahati pavakah, Na chainam kledayanty apo na shoshayati marutah*
>
> "Weapons cannot cut the soul, fire cannot burn it, water cannot wet it, and wind cannot dry it."

Application In special circumstances, the fundamental principle remains constant—we serve the eternal essence of the person. The modifications are technical, but our commitment to preserve life remains unchanged.

THE INTEGRATION

This verse about the indestructible atman (soul) provides philosophical grounding for modifying resuscitation in special circumstances. Whether the patient is pregnant, hypothermic, traumatized, or drowning, the 2025 guidelines teach us to adapt our approach while maintaining core principles. The integration isn't about the soul being literally immune to fire or water—it's about maintaining our commitment to the person's intrinsic worth regardless of external circumstances. A hypothermic arrest patient may appear clinically dead but deserves prolonged effort ("not dead until warm and dead"). A pregnant patient requires left uterine displacement, but compressions remain 100–120/min. The special circumstances chapter teaches that while techniques adapt, our fundamental dharma—to serve life—remains constant. The verse reminds us that behind every special circumstance is a soul, an essential person, whose worth doesn't diminish because their arrest happened in trauma, pregnancy, or cold water.

CHAPTER 18

Global Perspectives and Resource-Limited Settings

KEY 2025 AHA/ERC GUIDELINES

1. **Essential interventions —** High-quality CPR and early defibrillation can be achieved even with limited resources
2. **Simplified algorithms —** Task-shifting to non-physicians; basic CPR by lay providers
3. **Community training —** Mass CPR education initiatives to increase bystander response
4. **Context-appropriate technology —** Manual defibrillators, basic monitors adequate when advanced systems unavailable
5. **Local adaptation —** Guidelines must be culturally and economically adapted to local settings

BHAGAVAD GITA TEACHING

> **VERSE 12.13–14**
>
> *Adveshta sarva-bhutanam maitrah karuna eva cha, Nirmamo nirahankarah sama-duhkha-sukhah kshami*
>
> "One who harbors no hatred toward any being, who is friendly and compassionate, free from possessiveness and ego, balanced in happiness and distress, forgiving..."

Application Resuscitation care should be available to all humans regardless of geography or economic status. Compassion transcends borders and resource limitations.

THE INTEGRATION

This verse's vision of universal compassion ("adveshta sarva-bhutanam"—harboring no hatred toward any being) challenges the global disparity in resuscitation care. While 2025 guidelines are written primarily for high-resource settings, the ERC and global resuscitation councils emphasize that basic, effective CPR transcends technology. The integration teaches that high-quality compressions, early defibrillation, and systematic approach can be implemented anywhere with proper training. "Maitrah karuna" (friendliness and compassion) means working to make lifesaving knowledge accessible globally, not gatekeeping it behind expensive equipment. The chapter reveals that the essence of ACLS—skillful action with compassionate intent—is universal, even if the specific tools vary. Advocating for training programs in resource-limited settings, participating in global health initiatives, and recognizing that a life in rural India or sub-Saharan Africa has equal value to one in New York or London all represent this verse's teaching in action. True resuscitation excellence includes working toward global health equity.

EPILOGUE

The Synthesis of Science and Spirituality

FINAL INTEGRATION

> **VERSE 18.73 (ARJUNA'S CONCLUSION)**
>
> *Nashto mohah smritir labdha tvat-prasadan mayachyuta, Sthito 'smi gata-sandehah karishye vachanam tava*
>
> "My delusion is destroyed, and by Your grace I have regained memory. I am firmly established, free from doubt; I shall act according to Your word."

The journey through ACLS guidelines paralleled with the Bhagavad Gita reveals that excellent resuscitation medicine is both science and art, technique and wisdom, action and equanimity. Like Arjuna, who began in confusion but ended with clarity and readiness for action, we as healthcare providers must transform knowledge into skillful, compassionate intervention.

The 2025 AHA/ERC guidelines provide the "what" and "how"—the technical specifications for saving lives. The Bhagavad Gita provides the "why" and "who"—the philosophical foundation for maintaining excellence, compassion, and balance in this challenging work.

Together, they teach us to:

- Act with full commitment while remaining emotionally balanced (karma yoga)
- Perform our duty with technical excellence (dharma)
- Maintain lifelong learning and humility (jnana yoga)
- Serve all patients with equal compassion (bhakti yoga)
- Work in teams with clear communication and mutual respect (sangha)
- Balance professional dedication with personal wellbeing (balance)
- Advocate for equitable access to care (universal compassion)

The integration of these two knowledge systems creates not just better clinicians, but more complete human beings—capable of technical excellence, emotional resilience, ethical clarity, and compassionate service. This is the true meaning of Advanced Cardiac Life Support through the lens of the Bhagavad Gita.

FOR YOUR CONTINUED STUDY

- American Heart Association 2025 Guidelines: www.heart.org
- Bhagavad Gita with commentary by Swami Chinmayananda, Eknath Easwaran, or Paramahansa Yogananda
- Integration of spirituality in medicine: courses on mindfulness in healthcare, compassion cultivation

APPENDIX

Quick numbers

Every dose, energy level, target and time window stated in this handbook, gathered in chapter order for bedside recall. Verify against your institutional protocol before administration.

1 HIGH-QUALITY CPR

Compression parameters Rate 100–120/min, depth 2–2.4 inches (5–6 cm) for adults with full chest recoil

Minimize interruptions Hands-off time <10 seconds; continuous compressions during rhythm analysis with newer defibrillators

Physiologic monitoring Use $ETCO_2$ (>10 mmHg target) and arterial pressure monitoring to assess CPR quality

3 RECOGNITION OF ARREST RHYTHMS

Rapid rhythm identification Distinguish shockable (VF/pVT) from non-shockable (PEA/asystole) within 10 seconds

Minimize rhythm check interruptions Limit checks to <10 seconds every 2 minutes

4 SHOCKABLE RHYTHMS

Biphasic energy levels 120–200 J (device specific) for first shock; equivalent or higher for subsequent

Minimizing pre-shock pause Charge during CPR when possible; <5 second pause ideal

Antiarrhythmic Consider amiodarone 300 mg or lidocaine 1–1.5 mg/kg for refractory VF/pVT after first shock

5 NON-SHOCKABLE RHYTHMS

Epinephrine timing 1 mg IV/IO every 3–5 minutes; earlier administration may improve outcomes

6 AIRWAY AND OXYGENATION

Ventilation rate post-airway 10 breaths/min (1 breath every 6 seconds); avoid hyperventilation

7 PHARMACOLOGY IN CARDIAC ARREST

Epinephrine dosing 1 mg IV/IO every 3–5 minutes for all arrest rhythms; earlier may be beneficial

Amiodarone for VF/pVT 300 mg first dose, 150 mg second dose for refractory rhythms

Lidocaine alternative 1–1.5 mg/kg initial, then 0.5–0.75 mg/kg (max 3 mg/kg) if amiodarone unavailable

Drug delivery IV/IO equally effective; peripheral IV acceptable if rapid, followed by 20 mL flush and extremity elevation

8 POST-CARDIAC ARREST CARE

Targeted temperature management Avoid fever; consider 32–36°C for 24 hours in appropriate patients

Hemodynamic optimization MAP ≥65 mmHg; individualize based on patient factors

Oxygenation targets SpO_2 92–98%; avoid hyperoxia and hypoxia

Ventilation control Target $PaCO_2$ 35–45 mmHg; avoid extremes

Early coronary angiography Within 2 hours for STEMI or high suspicion of cardiac cause

9 BRADYCARDIA MANAGEMENT

Atropine initial treatment 1 mg IV (may repeat, max 3 mg) for symptomatic bradycardia

Dopamine/epinephrine infusions 2–20 mcg/kg/min (dopamine) or 2–10 mcg/min (epinephrine) as temporizing measure

10 TACHYCARDIA WITH PULSE

QRS width classification Narrow (<0.12 s) vs. wide (≥0.12 s) guides specific treatment

Adenosine for SVT 6 mg rapid IV push, then 12 mg if needed (after vagal maneuvers fail)

Synchronized cardioversion Energy 50–100 J for atrial flutter, 100–200 J for other SVT/VT; increase stepwise if needed

11 ACUTE CORONARY SYNDROMES

Early aspirin administration 162–325 mg chewed; give to all suspected ACS

Reperfusion time targets PCI within 90 minutes (first medical contact to balloon); fibrinolysis within 30 minutes if PCI unavailable

Antiplatelet therapy P2Y12 inhibitor (clopidogrel, ticagrelor, or prasugrel) in addition to aspirin

12 STROKE RECOGNITION

Time-critical assessment "Time is brain"—rapid stroke scale (NIHSS or RACE) within 10 minutes of arrival

Thrombolysis window tPA within 4.5 hours of last known well for eligible patients

Thrombectomy consideration Up to 24 hours for large vessel occlusion in selected patients

Blood pressure management Permissive hypertension unless >220/120 or patient eligible for thrombolysis

17 SPECIAL CIRCUMSTANCES

Pregnancy modifications Left uterine displacement during CPR; perimortem cesarean within 5 minutes if no ROSC

Hypothermia Continue resuscitation until core temperature >32°C; prolonged efforts warranted

ADVANCED CARDIAC LIFE SUPPORT

Through the Lens of the Bhagavad Gita

Advanced Cardiac Life Support Through the Lens of the Bhagavad Gita integrates contemporary evidence-based resuscitation science with timeless principles of leadership, ethical judgment, and professional resilience, using the Bhagavad Gita as one of the world's enduring reflections on decision-making under conditions of uncertainty.

- Eighteen chapters, each complete on a single page
- Key 2025 AHA guideline points, a Gita verse, and a reflection on each
- Quick-numbers appendix: every dose, energy level and time target

"Every cardiac arrest has two patients: one lying on the stretcher, and one standing beside it."

FROM THE PREFACE

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