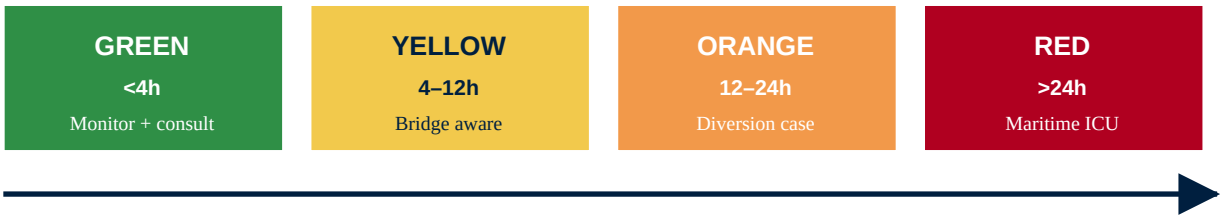
TACTICAL BRIDGE CARDS

Maritime Medicine Playbook Lead Magnet

15-second crisis retrieval for ship doctors, nurses, expedition clinicians, and bridge-facing medical teams.

ZONE OF SURVIVABILITY



Distance-to-care is not geography only. It is clinical risk.

Weather multiplier: worsening weather increases the zone by one level.

The Golden Hour Ends. The Maritime Day Begins.

These cards preview the full Maritime Medicine Playbook ecosystem: Career Toolkit, Fast Access Handbook, and Master Commercial Operational Edition.

HOW TO USE THESE CARDS

Print • laminate • keep at the medical center, bridge, crash cart, and drill folder

THE 15-SECOND RULE

If a clinician cannot locate the correct operational pathway within 15 seconds during a crisis, the system has failed.

These cards are cognitive offloading tools for high-stakes maritime environments.

Card	Use During	Primary Question
Speaking Captain Dictionary	Bridge communication, diversion requests	How do I translate physiology into operational risk?
Zone of Survivability	Distance-to-care decisions	How does geography change risk?
15-Second Oxygen Audit	Any patient on oxygen	When do we hit zero?
Pump–Tank–Pipes	Shock/crashing patient	What shock bucket am I treating?
SBAR-M	Telemedicine + Bridge handover	What is the maritime modifier?
Failed Medevac	Weather/range prevents evacuation	How do we survive 24–72 hours?

CARD 1 — SPEAKING CAPTAIN DICTIONARY

DO NOT SPEAK MEDICINE ON THE BRIDGE

CORE DOCTRINE

The Bridge does not need a lecture in cardiology, neurology, or sepsis. The Bridge needs operational consequence.

Translate: diagnosis → deterioration risk → time window → ship capability → decision required.

Clinical Scenario	Hospital Talk	Captain Talk
STEMI	The patient has 4 mm ST-elevation.	The treatment has a high failure risk in isolation. If it fails, deterioration may occur within hours. Is the helicopter window still open?
Dynamic NSTEMI	Troponin/ECG changes suggest NSTEMI.	We are currently winning, but onboard treatment has a failure risk. We need to be within evacuation range before weather closes.
Surgical abdomen	Possible appendicitis/peritonitis.	This may become a surgical emergency we cannot fix onboard. Delay increases risk of perforation, sepsis, and liability.
Stroke	FAST positive; no CT onboard.	The brain has a time window. We need the fastest route to CT-capable care, not simply the nearest port.
Psychosis/security risk	The patient is acutely psychotic.	This is a medical-security risk. The vessel must protect patient, crew, and operational continuity while arranging definitive care.
Septic shock	Hypotensive despite fluids.	This patient may exceed ship capability. We need vasopressors, oxygen, staffing, and diversion now.

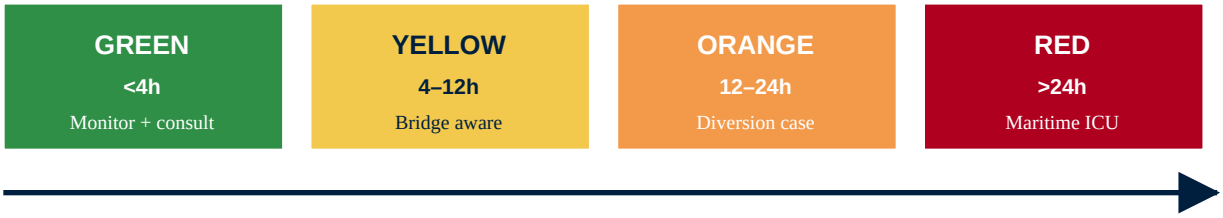
BRIDGE PHRASE

“This is not just a diagnosis. This is a narrowing operational window.”

CARD 2 — ZONE OF SURVIVABILITY

Distance-to-care turns geography into pathology

ZONE OF SURVIVABILITY



Distance-to-care is not geography only. It is clinical risk.

Weather multiplier: worsening weather increases the zone by one level.

Zone	Time to Definitive Care	Operational Meaning	Action
GREEN	<4 hours	Manageable with monitoring	Treat, consult, reassess
YELLOW	4–12 hours	Risk may outlast simple observation	Notify Bridge, activate telemedicine
ORANGE	12–24 hours	Deterioration may exceed onboard capability	Strong diversion case, oxygen audit, staffing plan
RED	>24 hours	Ship becomes temporary ICU	Command escalation, prolonged stabilization doctrine

WEATHER MULTIPLIER

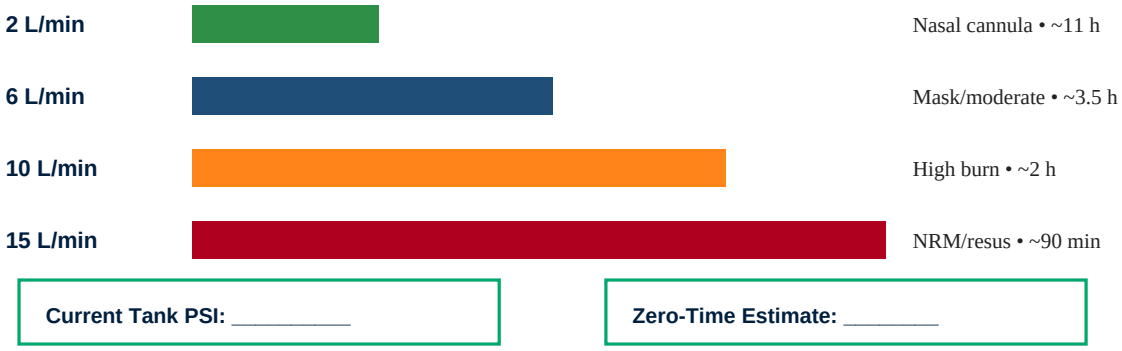
Worsening weather increases the zone by one level.

Yellow becomes Orange. Orange becomes Red. A patient who is clinically stable now may become operationally unstable if the evacuation window is closing.

CARD 3 — 15-SECOND OXYGEN AUDIT

Oxygen is both a medication and a logistics problem

15-SECOND OXYGEN AUDIT



Current Tank PSI: _____

Zero-Time Estimate: _____

Flow	Typical Use	Operational Meaning
2 L/min	Nasal cannula / observation	Sustainable, but still track duration
6 L/min	Moderate oxygen need	Audit cylinder reserves and backup supply
10 L/min	High-flow support	Significant depletion risk; inform Bridge if prolonged
15 L/min	NRM / resuscitation	Resuscitation burn rate; calculate zero-time immediately

COMMAND QUESTION

At current consumption, when do we hit zero?

If the answer is unknown, oxygen sustainability has not been assessed.

CARD 4 — PUMP–TANK–PIPES

A shock lens for the crashing patient

PUMP–TANK–PIPES SHOCK LENS

PUMP

Squeeze?
Tamponade?
PE/RV strain?

TANK

Empty?
Bleed?
Sepsis/dehydration?

PIPES

Dilated?
Blocked?
Anaphylaxis/PE?

Shock that cannot be reversed onboard becomes a diversion argument.

Bucket	Question	Examples	Immediate Thinking
PUMP	Is the heart failing?	Tamponade, PE/RV strain, poor squeeze, ACS	POCUS heart, ECG, oxygen, cautious fluids if failure suspected
TANK	Is the patient empty?	Bleeding, dehydration, sepsis, GI loss	Fluids/blood strategy, source control, diversion if blood/surgery needed
PIPES	Are vessels dilated or obstructed?	Anaphylaxis, sepsis vasodilation, PE, tension pneumothorax	Adrenaline/vasopressors/decompression depending cause

OPERATIONAL TRIGGER

If POCUS or clinical exam suggests an empty tank from bleeding, divert toward a port with blood bank and surgical capability. Do not treat a logistics problem as a purely medical problem.

CARD 5 — SBAR-M COMMAND HANDOVER

Situation • Background • Assessment • Recommendation • Maritime Modifier

SBAR-M: SPEAK CAPTAIN

The M is the difference: distance, weather, oxygen, staffing, evacuation window.

Element	What To Say
Situation	What is happening now?
Background	Relevant patient + ship context
Assessment	Clinical risk and deterioration risk
Recommendation	What you need: observe, treat, divert, evacuate, isolate
Maritime Modifier	Distance, weather, oxygen, staffing, evacuation window, telemedicine, documentation

EXAMPLE

“This is a possible evolving STEMI. We have started ACS care and serial ECGs. The maritime modifier is that we are 18 hours from PCI-capable care and weather may close the helicopter window. I recommend immediate telemedicine escalation and Bridge diversion planning.”

CARD 6 — FAILED MEDEVAC

When the helicopter cannot come, the ship becomes the ICU

FAILED MEDEVAC: DO NOT FREEZE

System	Audit Now	Failure Point
Oxygen	Cylinder count, flow rate, reserve pressure	Zero-time unknown
Power	Monitor, pumps, ventilator, suction, lighting	Battery failure during stabilization
Drugs	Sedation, vasopressors, antibiotics, antiemetics	Stock depletion before evacuation
Staffing	Doctor/nurse fatigue, watch rotation	Exhausted clinician becomes safety risk
Communication	Telemedicine, Bridge, company, next port	No shared operational picture

DOCTRINE

Failed medevac is not the end of the plan. It is the beginning of prolonged stabilization doctrine.

CARD 7 — AGE OUTBREAK LOCKDOWN

Speed of isolation equals speed of containment

Trigger	Immediate Action	Operational Reason
3+ loose stools in 24h	Isolate, document, hydrate, line list	High outbreak amplification risk
Vomiting + abdominal symptoms/fever	Treat as possible AGE pathway	Early containment beats delayed certainty
Food handler symptoms	Remove from duty immediately	Food chain amplification risk
Multiple cases	Notify relevant departments and public health chain	Protect vessel continuity
Dehydration/unstable	ORS if tolerated; IV fluids if unstable/intolerant	Clinical stabilization + containment

RETURN-TO-WORK REMINDER

Guests and non-food-worker crew are commonly isolated until at least 24 hours from last symptom. Food handlers commonly require stricter criteria, often 48 hours symptom-free depending on vessel/company protocol.

CARD 8 — STEMI AT SEA

The first ECG is a photograph. Maritime medicine requires a movie.

Step	Action
1	Aspirin/ACS treatment per protocol; oxygen only if hypoxic; analgesia/antiemetic as appropriate
2	Serial ECGs every 15–30 minutes if evolving symptoms or dynamic changes
3	Telemedicine early; discuss PCI window vs thrombolysis if evacuation impossible
4	Notify Bridge: weather and distance are clinical variables
5	Audit oxygen, monitoring, staffing, drugs, and next evacuation window

CAPTAIN TRANSLATION

“The patient may deteriorate faster than the ship can reach definitive care. We need to decide before the evacuation window closes.”

WANT THE FULL SYSTEM?

These cards are only the entry layer.

THE FULL MARITIME MEDICINE ECOSYSTEM

If these cards helped you think differently, the full system goes deeper:

1. The Maritime Clinician's Career Toolkit — cruise ship doctor/nurse interview guide + fast access handbook.

2. Maritime Medicine Playbook: Master Commercial Operational Edition — the full operational doctrine for deterioration in isolation, 72-hour Maritime ICU, HEART-M, SBAR-M, medico-legal templates, MacGyver medicine, public health command, war stories, and fleet standardization.

Product	Best For	What It Solves
Career Toolkit	Doctors/nurses applying for ship roles	Get hired, answer operationally, prepare for interviews and viva scenarios
Master Playbook	Ship clinicians, lead doctors, fleet teams	Manage emergencies, outbreaks, failed medevacs, prolonged stabilization, and command decisions
Fleet Licensing	Companies/training departments	Standardize decision-making across vessels

The Golden Hour Ends. The Maritime Day Begins.

Hospital medicine assumes help is nearby. Maritime medicine assumes help may not come.