

PREHOSPITAL CARE EDUCATION AND SKILLS
SERIES



COURSE
CATALOGUE

2026

Advanced Training for the Modern Practitioner
Trauma | Resuscitation | Critical Thinking



WWW.IHRI.EDU.EU

About IHRI

The International Health Research Institute

The International Health Research Institute (IHRI) is a pioneering institution dedicated to transforming professional practice through collaborative, interdisciplinary innovation. We operate in the critical gap between traditional academia and industry, preparing a new generation of Practitioner-Scholars to solve "wicked problems" in complex systems.

Our Mission: To develop innovative solutions to complex global challenges—from healthcare and space systems to agritech and leadership—through online education, research, and innovation. We empower researchers to implement novel, evidence-based approaches in an open, principled environment.

Introducing the Professional Education and Skills Series

Modern prehospital care is evolving rapidly. The challenges faced by today's clinicians—from complex polytrauma and peri-arrest scenarios to the cognitive demands of high-stakes decision-making—require more than just procedural competency. They demand a profound shift from being a technician who follows protocols to becoming a Practitioner-Scholar capable of navigating uncertainty with evidence-based precision.

The IHRI Professional Education and Skills Series was conceived to bridge the critical gap between basic clinical training and the complex realities of modern operational health. We recognise that in the field, there are rarely textbook answers to "wicked problems." Therefore, our education is not just about **what** to do, but **how** to **think** while doing it.

“We do not teach you the guidelines; we teach you the science, the strategy, and the critical reasoning required to adapt when the guidelines do not apply”

Our Learning Approach: The Modern Tutorial System

The IHRI Professional Education and Skills Series leverages an innovative pedagogical approach inspired by the Oxford tutorial system, adapted for modern online delivery. This method blends asynchronous and synchronous tutorials to provide a flexible, engaging, and transformative learning experience.

Core Components

- **Self-Paced Engagement:** Students engage with core readings and critical prompts at their convenience, fostering a balance between academic and professional commitments.
- **Reflective Artifacts:** Critical commentaries and "minute papers" created during tutorials become reusable resources for ongoing learning.
- **Live Expert Interaction:** Fortnightly live discussions with lead tutors facilitate deeper exploration of topics and enhanced student-tutor interaction.

"This pedagogical approach integrates expert guidance, peer collaboration, and flexible learning opportunities to deliver a transformative educational experience."

Flexible Enrollment & Pricing

We understand that healthcare professionals have varying needs. You may enrol in a **Full Short Course** for comprehensive certification, or select **Individual Modules** to target specific knowledge gaps.

Option | Cost

Full Short Course | **€400** | Includes all modules + Certificate of Completion.

Individual Module | **€60** | "A La Carte" topic selection + Statement of Completion.

IT Requirements & Digital Access

Students require a **Google Account** (free).

Access: Accessible via PC/Laptop and the Google Classroom Mobile App.

Students have 12 months of access to the Classroom.

Connectivity & Hardware: A reliable internet connection is essential. The platform is compatible with computers, laptops, tablets, and smartphones.

Research Tools: To access open-source supplementary research, we strongly recommend installing the following Chrome extensions:

- Unpaywall
- OpenAccess Helper Web

Trauma in Prehospital Care

Course Code: TPC-100 | Modules: 9

Course Overview

Trauma is a dynamic and time-critical pathology that demands a shift from traditional, linear assessment models to aggressive, physiology-driven interventions. This comprehensive course explores the modern paradigm of prehospital trauma care, moving beyond the standard ABCDE approach to prioritise catastrophic hemorrhage control and the preservation of tissue perfusion. Through a lens of "damage control," learners will navigate the complexities of polytrauma, specific anatomical injuries, and the unique physiological demands of special populations.

What's Included?

- All 9 Trauma Modules
- + 1 reflective assessment module
- Access to fortnightly live tutorials
- Certificate of Completion



Overall Course Learning Outcomes

By the end of this course, students will be able to:

- Critique and Apply Modern Algorithms: Transition from rigid protocols to physiology-based assessments (CABC/MARCH), prioritising immediate life-threatening conditions such as exsanguination.
- Master Haemostatic Resuscitation: Implement evidence-based strategies for hemorrhage control, including the use of tourniquets, haemostatic agents, TXA, and massive transfusion protocols.
- Manage Complex Pathophysiology: Identify and mitigate the "Lethal Diamond of Trauma" (acidosis, coagulopathy, hypothermia, hypocalcemia) through proactive damage control resuscitation.
- Adapt to Special Populations: Modify assessment and treatment strategies for paediatric, geriatric, and obstetric trauma patients to account for unique physiological variances.
- Minimise Iatrogenic Harm: Evaluate the risks of interventions such as fluid overload and intubation-induced hypotension, applying principles of "do no harm" in the resuscitation phase.

Module Breakdown

Topics

CABC, MARCH,
and Traumatic
Cardiac Arrest

Module TPC-01: Sequence of Care

€60

This foundational module examines the critical paradigm shift in trauma resuscitation from the traditional ABCDE model to haemorrhage-prioritised algorithms like CABC and MARCH. Learners will evaluate the physiological rationale for this shift, specifically the risks of early intubation in hypotensive patients and the necessity of immediate haemorrhage control.

Topics

Advanced Airway,
Damage Control
Resuscitation,
and REBOA

Module TPC-02: Advanced Interventions

€60

This module introduces advanced procedural interventions for complex trauma. Learners will explore airway management strategies, including endotracheal intubation versus rescue airways, and the principles of Damage Control Resuscitation (DCR), focusing on permissive hypotension and aggressive haemorrhage control.

Topics

Haemorrhage
Control and the
Lethal Diamond

Module TPC-03: Goals of Trauma Resuscitation (Part 1)

€60

This module tackles the leading cause of preventable trauma death: uncontrolled haemorrhage. Learners will examine the physiology of exsanguination, specifically the progression from the "Bloody Vicious Cycle" to the Lethal Diamond of Trauma.

Topics

Restoring Tissue
Perfusion and Fluid
Stewardship

Module TPC-04: Goals of Trauma Resuscitation (Part 2)

€60

This module addresses the restoration of tissue perfusion. Learners will navigate the debate regarding optimal fluid for prehospital resuscitation, providing a critical analysis of the RePHILL trial and exploring the risks of tissue oedema and dilutional coagulopathy associated with crystalloid use.

Module Breakdown

Module TPC-05: Goals of Trauma Resuscitation (Part 3)

€60

This module focuses on pharmacological interventions to reverse coagulopathy. Learners will deep-dive into the evidence for Tranexamic Acid (TXA), analysing landmark studies such as CRASH-2 and CRASH-3, and highlighting the dangers of Hypocalcaemia.

Topics

Promoting
Haemostasis,
TXA, and Calcium

Module TPC-06: Goals of Trauma Resuscitation (Part 4)

€60

This module examines the "hidden harms" of standard medical interventions. Learners will explore the physiological consequences of aggressive fluid administration, debate the concept of Permissive Hypotension, and address the controversial role of vasopressors in trauma.

Topics

Minimising
Iatrogenic Injury and
Vasopressor Use

Module TPC-07: Pharmacology for Trauma - Acute Pain Management

€60

This module addresses the pharmacological management of acute pain, highlighting the issue of oligoanalgesia. Learners will compare the efficacy of standard opioids against alternative agents such as Ketamine, Methoxyflurane, and Regional Anaesthesia.

Topics

Opioids, Ketamine,
Regional Anaesthesia,
and Oligoanalgesia

Module TPC-08: Special Populations

€60

This module addresses the bimodal distribution of trauma. Learners will examine critical priorities in paediatric trauma, including TBI management and analgesic options. Conversely, it tackles the "Silver Tsunami" of geriatric trauma, highlighting the risk of undertriage and the necessity of frailty assessments.

Topics

Paediatric Trauma
and Geriatric
Trauma

Module TPC-09: Traumatic Injuries

€60

The final module addresses specific high-acuity injuries. The burns section emphasises the "Rule of 10" to prevent fluid creep. The module delves into TBI neuroprotection, discusses non-invasive monitoring such as Optic Nerve Sheath Diameter (ONSD), and reviews spinal immobilisation.

Topics

Burns, TBI, Spinal
Trauma, and
Orthopaedics

Resuscitation in Prehospital Care

Course Code: RPC-200 | Modules: 9

Course Overview

Resuscitation science is rapidly evolving, moving from basic life support to high-performance, team-based critical care. This course focuses on the "pit crew" approach to cardiac arrest and the management of peri-arrest states. It bridges the gap between technical proficiency—such as vascular access and airway management—and the non-technical skills required to lead a team under extreme pressure. Learners will explore cutting-edge interventions, from point-of-care ultrasound (POCUS) to extracorporeal life support (ECPR).

What's Included?

- All 9 Resuscitation Modules
- + 1 reflective assessment module
- Access to fortnightly live tutorials
- Certificate of Completion



Overall Course Learning Outcomes

By the end of this course, students will be able to:

- **Lead High-Performance Teams:** Apply "pit crew" principles and non-technical skills (NTS) to optimise team dynamics and minimise flow interruptions
- **Analyse Advanced Interventions:** Critically evaluate the evidence for emerging therapies, including Double Sequential External Defibrillation (DSED), ECPR, and prehospital whole blood.
- **Synthesise Diagnostic Data:** Integrate physiological monitoring (EtCO₂, invasive pressure) and diagnostic imaging (POCUS) to identify reversible causes of arrest.
- **Manage Specific Etiologies:** Construct tailored resuscitation plans for special circumstances, including anaphylaxis (AMAX4), severe asthma, pregnancy, and pediatric emergencies.
- **Execute Advanced Procedures:** Demonstrate a theoretical and practical understanding of complex skills, including Resuscitative Sequence Intubation (RSI) and vascular access (IV vs. IO) strategies.

Module Breakdown

Module RPC-01: Time Criticality and Patient Deterioration

€60

Topics

Early Warning Scores

This module focuses on the role of Early Warning Scores (EWS), such as NEWS2 and RETTS. Learners evaluate the predictive accuracy of these tools regarding mortality and ICU admission.

Module RPC-02: Leadership and Teamwork in Resuscitation (Part 1)

€60

Topics

Leading Ad-hoc Teams, Non-Technical Skills

This module shifts focus to Non-Technical Skills (NTS). Learners examine how leadership and communication influence CPR quality and defibrillation times, exploring the "hands-off" leadership model.

Module RPC-03: Leadership and Teamwork in Resuscitation (Part 2)

€60

Topics

Handover and the Zero Point Survey

This module tackles the leading cause of preventable trauma death: uncontrolled haemorrhage. Learners will examine the physiology of exsanguination, specifically the progression from the "Bloody Vicious Cycle" to the Lethal Diamond of Trauma.

Module RPC-04: Out-of-Hospital Cardiac Arrest (Part 1)

€60

Topics

HP CPR, Pharmacology, and ROSC Management

This module explores the "Pit Crew" approach to resuscitation. The module examines antiarrhythmic pharmacology and post-resuscitation care, analysing physiological targets (BP, EtCO₂).

Module Breakdown

Module RPC-05: Out-of-Hospital Cardiac Arrest (Part 2)

€60

Topics

Mechanical CPR, ECPR, and Advanced Defibrillation

This module explores advanced interventions for refractory cardiac arrest. Learners evaluate mechanical vs. manual CPR, Double Sequential External Defibrillation (DSED), and Extracorporeal Cardiopulmonary Resuscitation (ECPR).

Module RPC-06: Resuscitation in Specific Conditions (Part 1)

€60

Topics

ACS/OMI, Sepsis, BRASH Syndrome, and AMAX4

This module addresses high-risk emergencies. Learners explore the Occlusion MI (OMI) paradigm, complex presentations like BRASH syndrome, and the AMAX4 algorithm for anaphylaxis/asthma.

Module RPC-07: Resuscitation in Specific Conditions (Part 2)

€60

Topics

PPH, Paediatrics, and Remote/Telehealth

This module examines resuscitation in specialised populations. Learners review Post-partum Haemorrhage (PPH) techniques, paediatric resuscitation challenges, and the use of telemedicine.

Module RPC-08: Advanced Resuscitation Techniques (Part 1)

€60

Topics

Airway Management, RSI, and Vascular Access

This module focuses on Resuscitative Sequence Intubation (RSI) and vascular access. The module highlights risk mitigation (Video Laryngoscopy, SALAD technique) and reviews trials comparing IV vs. IO access.

Module RPC-09: Advanced Resuscitation Techniques (Part 2)

€60

Topics

Point-of-Care Ultrasound and Whole Blood Transfusion

This module explores Point-of-Care Ultrasound (POCUS), focusing on lung ultrasound and live-streaming POCUS for remote guidance, as well as the logistics of Prehospital Whole Blood Transfusion.

Critical Thinking in Prehospital Care

Course Code: CTC-300 | Modules: 7

Course Overview

In the chaotic prehospital environment, the clinician's mind is their most valuable tool. This course moves beyond clinical protocols to explore the cognitive processes that drive decision-making. It dissects how we think, why errors occur, and how to build resilience against the psychological pressures of emergency medicine. By examining heuristics, biases, and the architecture of human judgment, this course empowers practitioners to move from intuitive "System 1" reacting to analytical "System 2" reasoning.

What's Included?

- All 7 Critical Thinking Modules
- + 1 reflective assessment module
- Access to fortnightly live tutorials
- Certificate of Completion



Overall Course Learning Outcomes

By the end of this course, students will be able to:

- **Deconstruct Cognitive Processes:** Apply Dual Process Theory to distinguish between intuitive reactions and analytical reasoning in high-stakes clinical environments.
- **Mitigate Cognitive Bias:** Identify and counteract common heuristic traps (e.g., anchoring, confirmation bias, premature closure) that lead to diagnostic error.
- **Navigate Human Factors:** Evaluate the impact of environmental stressors—such as fatigue, time pressure, and resource scarcity—on decision quality.
- **Apply Evidence-Based Frameworks:** Utilise tools like the PICO framework and the Hierarchy of Evidence to integrate high-quality research into real-time clinical decision-making.
- **Develop Reflective Practice:** Create a personalised decision-making framework and a Continuing Professional Development (CPD) plan based on structured reflection.

Module Breakdown

Topics

Critical Thinking vs
Clinical Decision-
Making, Dual
Process Theory

Module CTC-01: Introduction to Critical Decision-Making **€60**

This module establishes cognitive frameworks. Learners deconstruct "critical thinking" vs. "clinical decision-making" and introduce Dual Process Theory (System 1 vs. System 2).

Topics

Human Factors and
Performance

Module CTC-02: The Decision-Making Process in Pre-Hospital Care **€60**

This module moves to the mechanics of clinical reasoning. Learners deconstruct the decision-making loop and analyse "Human Factors," specifically how stress and fatigue degrade cognitive performance.

Topics

Anchoring,
Confirmation Bias,
and the Availability
Heuristic.

Module CTC-03: Heuristics and Biases in Decision Making **€60**

This module navigates mental shortcuts (heuristics) that lead to error. Learners examine biases prevalent in emergency medicine, such as Anchoring and Premature Closure, and acquire "de-biasing" strategies.

Topics

Hierarchy of Evidence
and Evidence Based
Practice

Module CTC-04: Evidence-Based Decision Making **€60**

This module bridges research and practice. Learners define Evidence-Based Practice (EBP) and introduce the Hierarchy of Evidence pyramid and the PICO framework.

Module Breakdown

Topics

Case Studies,
Reflective Learning

Module CTC-05: Case Studies in Critical Decision Making **€60**

This application-focused module immerses learners in real-world scenarios. Students "audit" decision-making pathways in complex cases, identifying where cognitive biases influenced the trajectory.

Topics

Community of
Practice, Reflective
Learning

Module CTC-06: Reflective Practice and Discussion **€60**

Utilising a "Community of Practice" model, this module engages learners in peer-to-peer discussions to dissect personal clinical experiences and identify shared pitfalls.

Topics

Frameworks,
Personalised Tools

Module CTC-07: Developing a Critical and Clinical Decision-Making Framework **€60**

In this capstone module, learners design a bespoke clinical decision-making framework tailored to their environment, creating a roadmap for Continued Professional Development (CPD).



READY TO ADVANCE YOUR PRACTICE?

HOW TO ENROL

1. VISIT

WWW.IHRI.EDU.EU

2. APPLY

- FULL COURSE (€400) OR
- INDIVIDUAL MODULES (€60).

3. LEARN

IMMEDIATE ACCESS UPON PAYMENT.

CERTIFICATION

CERTIFICATE OF COMPLETION: AWARDED FOR FULL SHORT COURSES.

STATEMENT OF COMPLETION: ISSUED FOR INDIVIDUAL MODULES.



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