



Program Management Requirements

OVERVIEW

Purpose: The emergency medical system will provide rapid care and expedited transport to people with life- or limb-threatening illness and injury.

Objective: The emergency medical system will ensure that 90% of critical patients requesting emergency assistance will have an emergency responder at their side within:

- 10 minutes in village centers
- 30 minutes in peripheral communities

Values: All partners will guarantee that the emergency response system will fulfill its purpose and sustain services by holding and protecting these collective values:

- Commitment – We respond so that others may live; when one of us quits, people may die unnecessarily
- Reliability – The community believes what we say, because they see what we do
- Teamwork – We know that it takes at least four people to carry one patient in the same direction
- Community – We strengthen the community’s services by relying on available resources
- Education – We’re certain our work is of the highest quality because we’ve studied the evidence

ELIGIBILITY CRITERIA

In order to implement and utilize the dispatching software the following eligibility criteria must be met:

Emergency Medical Care

- A minimum number of layperson first responders, correlating to the target catchment area’s determined needs, must be trained and proficient in the following basic emergency medical care competencies:
 - *Scene and personal safety*, to ensure that the highest possible level of responder, patient and bystander safety is maintained during each emergency response
 - Skills: ingress and egress; scene size-up and management; bystander management; delegation of responsibilities; teamwork; triage
 - *Airway*, to ensure that the patient’s airway is open and patent, regardless of underlying condition
 - Skills: head-tilt/jaw thrust; abdominal thrusts and compressions for choking; rescue breaths for drowning and newborns; impaled objects; maxillofacial injuries; foreign body airway obstruction; seizures; head injuries/strokes; recovery position
 - *Hemorrhage*, to ensure that preventable death and disability from life-threatening hemorrhage is mitigated:
 - Skills: hemorrhage control (direct pressure, wound packing and dressing); tourniquet; shock (active warming); open chest wounds;
 - *Splinting*, to ensure that risk of secondary injury to patients with obvious and/or suspected fractures are minimized
 - Skills: sling/swath; upper- and lower-extremity injuries; pelvic injuries; spinal immobilization; position of comfort; pulse, motor, sensory
 - *Environmental*, to ensure that preventable death and disability among patients at risk of environmental exposure are mitigated:
 - Skills: active and passive warming; infection prevention; burns
 - *Patient Transport*, to ensure that patients and responders are not put at further risk of injury during transport
 - Skills: patient handling, loading, transport and evacuation; on-going assessment

Transport



- A minimum number of patient-appropriate transport vehicles, correlating to the target catchment area's determined needs, are in-service and equally distributed to ensure that minimum response time objectives are met
- A standardized operations protocol is in place to ensure that a minimum basic standard of services are available throughout the catchment area on a 24-7 basis, including:
 - A daily vehicle check-out protocol – e.g., fuel, tires, oil, odometer et al.
 - Maintenance and repair protocol – e.g., regularly scheduled tune-ups, oil changes, tire rotation, etc.
 - Equipment and supplies protocol – e.g., trauma kit and supplies inventory and re-stocking plan; patient transfer equipment;
 - Business continuity protocol – e.g., proper storage to prevent damage from weather, secured funds to make sure gas is in the tank and maintenance costs are covered
 - A fleet manager to supervise and take responsibility for the above activities
- A map detailing the vehicle deployment strategy with documented proof from stress tests
 - A clearly defined catchment area with inclusion and exclusion criteria
 - Identify and grade roads – e.g., accessibility, medical corridors, recognized relay points, “hot-spots” and high-risk roads
 - Compile table of distances and response times
 - Mark population distribution

Communications (Beacon)

- Human Resources: A minimum number of personnel are trained to fill the necessary roles and assume responsibility for the dispatch system's operations on a 24-7 basis:
 - IT Location Administrator, to effectively operate, use and manage the Beacon dispatching software and backup communication tools, including maintaining full documentation of operations, testing and performance
 - Dispatcher, to effectively take calls from community members requesting emergency assistance, dispatch a minimum appropriate number of first responders, provide on-going in-call supervision, and ensure backup communication tools are available and functioning
 - First Responders, to effectively use Beacon for medical emergency response through text message interaction, including backup communication tools
- Physical Resources:
 - Requisite number of mobile phones for first responders, dispatch and IT admin
 - A basic laptop computer with 8GB of RAM
 - Strong, uninterrupted internet connection (or 4G)
 - 24-7 power for the internet and computer
- Demonstrated competence by all personnel in live simulations of varying complexity – e.g., single incident, single first responder; single incident, multiple first responders; multiple simultaneous incidents, variable first responders

Sustainable Management

- The existence of a minimum set of necessary managerial and administrative processes and documentation to ensure that the system fulfills its purpose, meets its objectives, and continues to do so without interruption after launch:
 - Emergency medical care:
 - Training - exams, skills grading sheets, and graded simulations
 - Operations – patient care reports; emergency admissions
 - Staffing – signed first responder agreements with lead agency, including no-strike clauses
 - Transportation:
 - Transport logs
 - Fleet management



- Communications:
 - Performance database
- Management
 - Medical direction, to ensure minimum basic standards of care are being taught and delivered, include protocols
 - Staff scheduling and timesheets, to ensure minimum number of responders are always available, including “backfilling”
 - Updated protocols for operations, to ensure that human and physical resources are at highest level of readiness
 - Meeting minutes, to ensure attendance and clear, formal lines of communication between management, staff, community leaders and the general public
 - Performance reviews, to ensure the highest levels of service excellence at all levels
 - Community outreach and engagement plan (see below), to ensure the community knows how and when to request emergency assistance

Requirements for Trek Medics’ Participation

- Milestone 1: Training and Final Exam
 - 4 pre-selected individuals will learn how to operate, use and manage our Beacon dispatching software effectively
 - After successful completion of this training, a total of 10 first responders will have one month to prepare for a final exam, broken into three parts, with each participant needing a minimum, weighted score of 75% to pass the cumulative final exam
 - Written exam (50 questions)
 - Skills
 - Airway: head-tilt/jaw thrust; abdominal thrusts and compressions for choking
 - Hemorrhage control: direct pressure, tourniquet, open-chest wound, wound dressing; shock
 - Splinting: upper- and lower-extremity fracture; spinal immobilization
 - Patient handling and transport: fractures, shock, compromised airway
 - Beacon simulations (4 each)
 - Graded performance in live group simulations using Beacon and treatment/transport of actor-patients in vehicles
 - A cumulative group score will also be given:
 - If 6 or more pass the final exam we will provide the funding to implement Beacon for the duration of the pilot program
- Milestone 2: System Operations Planning
 - Prior to full launch of the live system, the following requirements must also be met by the responders
 - Community Mapping – a comprehensive map of the community, including a vehicle deployment plan
 - Protocols – specific routes of action for a core set of medical skills and incidents, not excluding non-medical scenarios (e.g., pronouncement of death; medical futility et al)
 - Staffing – regularly scheduled shifts with adequate reserves and plans for mutual aid and mandatory call-backs
- Milestone 3: Community Outreach
 - In order to make Beacon live, a comprehensive community outreach campaign must also be conducted for at least two weeks by all program participants and partners to educate the public through about how and when to request emergency medical assistance, through a range of daily activities, including but not limited to:
 - Live demonstrations for community groups and organizations
 - Public messaging
 - Radio interviews



- Public forums (e.g., “town hall” style meeting for community feedback)



MANAGEMENT REQUIREMENTS CHECKLIST

Component/Task	Responsible/ Resources	Activities	Complete?	Comments
Medical Training				
Transport Available				
Beacon User Training				
Protocol Design <ul style="list-style-type: none"> • Daily vehicle check-out • Vehicle maintenance • Equipment / Supplies • Business continuity • Recruit Fleet Manager 				
Community Mapping				
Beacon Operations <ul style="list-style-type: none"> • Personnel trained • Physical Resources available • User competency 				
Sustainability <ul style="list-style-type: none"> • Exams and grading sheets • Patient Care Reports • Transport logs • Beacon performance database • Medical Direction • Staff scheduling • Meeting minutes • Performance reviews • Community outreach 				