

Central Massachusetts Emergency Medical Systems Corporation

EMS Region II Communications Plan



CMEMSC Board of Directors Approved 9/1/2011

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Preamble

Worcester CMED (Central Medical Emergency Direction) relies on a network of radio towers strategically located throughout Central Massachusetts (EMS Region II). Ambulance personnel contact CMED via mobile/portable radio through these towers and request a communications connection enabling them to provide patient information to a hospital emergency department. The entry notification information they provide helps the hospital staff prepare for the patient's arrival. EMTs also communicate through CMED when emergency medical control orders are needed from a physician. CMED's role in coordinating communications for Mass Casualty Incidents (MCI) is instrumental to effective incident management. The coordinated distribution of patients to area hospitals limits confusion on scene and reduces the effects of a surge of patients on any one hospital. CMED is crucial to the coordination of communications between ambulances and hospitals and ultimately contributes to improved patient care.

Location

The CMED Center is located within EMS Region II's headquarters at:

361 Holden Street
Holden, MA 01520
508-854-0100 (office)
508-853-3672 (fax)
508-854-0100 (CMED)
www.cmemsc.org

Executive Functions

Region II CMED is owned and operated by Central Massachusetts Emergency Medical Systems Corporation, also known as EMS Region II. CMEMSC is a 501 (c) (3) non-profit organization and a quasi-governmental agency. CMEMSC maintains a contract with the Massachusetts Department of Public Health's Office of Emergency Medical Services to oversee EMS within Central Massachusetts. Its duties and functions are specified in 105 CMR 170.104.

Human Resources/Logistics

The staff of CMEMSC includes the Executive Director, Assistant Director, Executive Secretary, and a part-time Medical Director.

The CMED Center has a full-time staff of three full-time and approximately seven per-diem operators as well as a full-time CMED Supervisor. One CMED Operator is on-duty at all times. A second operator can be added during special events, major storms/blizzards or large scale emergencies. The CMED Supervisor is available for additional console support during regular office hours and twenty-four hours a day for emergencies.

The CMED communications console is controlled by Operators who are Massachusetts EMTs. The CMED Operator is responsible for effective coordination of EMS communications in the Region. In addition they are responsible for capturing data for call tracking and quality assurance purposes. In a multiple agency response or disaster, the CMED Operator facilitates interagency and regional communications

Newly hired CMED Operators complete an intensive training program that requires a minimum of forty hours learning the operation of the CMED equipment in the communications center. The CMED Supervisor reviews all aspects of CMED Operations with each employee to ensure understanding and observes him/her for a minimum of eight hours before they are allowed to manage the CMED console independently.

Technology

The Central Massachusetts EMS communications system consists of radio base stations located on towers throughout the Region and dedicated telephone lines controlled by computer operated consoles at the CMED operations facility. This system was designed to provide communications over a wide and varied geographic region while minimizing radio frequency congestion.

A standard ambulance radio operating on the UHF medical channels can access the system within the entire region with acceptable communications quality and in accordance with Massachusetts Department of Public Health (MDPH) regulations. It's important to know the design limits of the system, and use appropriate equipment with the system in order to ensure satisfactory communications.

Region II CMED operates a **Motorola MCC 5500** Dispatch Console which was installed in June 2005. Currently the MCC 5500 Console controls EMS communication with the region's hospitals through a network of ten (10) radio towers strategically located throughout Region II. Region II CMED also has the following radios installed in the communication center:

- (2) VHF with municipal frequencies,
- (2) UHF with CMED and municipal frequencies,
- (1) Low-Band County Fire,
- (1) Mass State Police / ITAC/MEMA,
- (1) City of Worcester, Fire/Police/EMS
- (1) National Red Cross radio.

CMED has the ability to cross-patch any of the above radios together on the Dispatch Console.

Also installed in the CMED Center is a Verizon Push-to-Talk (PTT) base station for direct communication with any regional hospital, clinic, Worcester Metropolitan Medical Regional System (MMRS), and the Worcester Department of Public Health (WDPH). An MSATg2 Satellite Phone was installed in the fall of 2006. This device can be used in case of a major communications or large scale phone-systems failure to communicate with the region's hospitals, MDPH, or MEMA.

All the CMED centers in Massachusetts have installed a VoIP (Voice-Over-Internet-Protocol) system. This system allows each CMED center to communicate with the other Regions as well as the ability to communicate with another Region's hospital through their CMED center.

In addition to the extensive radio communication equipment, Region II CMED also has the ability to connect an EMS provider to a requested hospital via landline or cell phone. This "phone patch" can be requested anytime a CMED radio is unavailable to the provider or they need to relay sensitive information (e.g. patient names) to the receiving hospital/medical control physician. These transmissions are recorded and tracked in the same manner as radio patches.

Channel Usage

CMED is currently licensed for twenty UHF frequencies and has access to twenty channels referred to as “MED channels”. MED 4 is the channel services use to make initial contact with CMED and is sometimes referred to as the “hailing” channel. Three channels are dedicated to specific hospitals: MED 1 for Baystate Mary Lane (Region I), MED 3 for Athol Memorial and MED 6 for Heywood Hospital. MED 9 and 92 are reserved for dispatch/communications and are currently in use by UMass EMS. MED 10 and 102 are considered common MCI channels for the state and are repeated channels. All other channels are available for assignment and are used to connect the ambulances to the hospitals.

CMED will operate in both wide and narrowband until the neighboring Regions are fully narrowband compliant. As the migration to narrowband is completed, in compliance with the January 1, 2013 FCC mandate, CMED will operate exclusively on narrowband.

See *Appendix A: Region II Frequency Coordination Plan*

Communications Failure

An EMT may initiate or continue care in accordance with MDPH/OEMS EMS Pre-hospital treatment protocols if communications are interrupted or cannot be established with medical control. The physician receiving the patient shall evaluate the emergency care rendered with comment on the patient care report as needed. **The EMT shall prepare a written report of the incident including patient care provided and submit it to the Regional Medical Director within seventy-two (72) hours for review.**

See *Appendix H: Communications Failure Report*

Quality Assurance (QA)

Central Mass EMS Corporation has created an Incident Report form for quality assurance purposes. This form should be completed if a service identifies a CMED deficiency, a problem in the regional communications system or a communications issue with staff at a receiving facility. The form should be mailed to Executive Director, Central Mass EMS Corp., 361 Holden Street, Holden, MA 01520 or faxed to (508) 853-3672. An investigation and appropriate response will be taken to resolve the issue whenever possible. In the event of serious communications issues requiring immediate action, contact CMED at (508) 854-0100.

See *Appendix F: Incident Report*

Recordkeeping

The Region has a customized Microsoft Office Access Database and log sheet which tracks information from the ambulance entry notifications, medical control orders and general information about medical care administered by providers. All radio and CMED phone lines are captured on digital audio recorders. Services/facilities may request copies of recordings for quality assurance (QA) by completing the CMED Transmission Request form. (Services and facilities will only be given access to calls with which they were involved.)

See *Appendix G: CMED Transmission Request*

Regional Resources

Equipment:

Region II has significant resources to assist during an MCI. The following is a brief description of items that can be requested through Region II CMED:

- Emergency Communication/Command Vehicles
 - Staffed 24 hours per day. (2C1 & 2C2)
 - Mobile UHF/VHF radios for regional Fire/EMS, MSP, District Fire, MEMA, CMED
 - Verizon PTT Phone Communications
 - Minimum of 5 portable radios, per truck, for distribution
 - EMTrack™ scanner
 - SMART Command Kit

- Disaster Communications Trailer (DRASH)
 - ICP shelter with climate control and lighting
 - Mobile UHF/VHF radios for regional Fire/EMS, MSP, District Fire, MEMA, CMED
 - Satellite phone communications
 - Raytheon ACU-T Tactical Interconnect

- RMCSU (Regional Mass Casualty Support Unit) trailers
 - Basic Life Support (BLS) supplies for 50 adult and 25 pediatric patients
 - Generator power
 - 5 Portable radio, ten spare batteries
 - 9 PPE kits with PAPR

- EMTrack™ Patient Scanners
 - Electronic patient tracking device
 - Integrated with hospital EMTrack™ equipment

- CHEMPACK Supplies
 - Located in secure locations throughout the Region
 - Nerve Agent/Organophosphate Antidote kits ready for rapid deployment

- PPE and Disaster Resource Trailer
 - PPE
 - Spare MCI equipment including backboards and cots

- AmbuBus
 - Capacity to handle 12 stretcher and 10 ambulatory patients
 - Ideal for large scale evacuations or disasters
 - CMED Mobile Radio

Regional Resources continued

Regional Medical Coordinating Center (RMCC):

The Regional Medical Coordinating Center (RMCC) provides coordination during emergency situations which cause patient surge in Region II. The primary goal of this entity and associated processes and plans is to provide coordination for the movement of patients when it appears the needs exceed the present available resources.

The Regional Medical Coordinating Center is a multi-discipline organization that is located in the training area of the CMEMSC building. It is equipped with an Automatic Call Distribution (ACD) phone system, wireless internet, and audio/visual equipment which allow multiple agencies to work together in managing a Mass Casualty Incident (MCI) or emergent health care facility evacuation. Participants at the RMCC include representatives from EMS, hospitals and MDPH's Emergency Preparedness Bureau, Long-Term Healthcare (EPB LTHC).

Field Communications Operating Procedures

Entry Notifications Guidelines:

- The purpose of an entry notification is to help the receiving hospital prepare an appropriate bed for the incoming patient and should contain only information pertinent to their chief complaint.
- Entry notifications may be answered at the hospital by an MD, PA, NP, RN, or any Paramedic at the direction of an RN or MD.
- MED 4 is the common hailing channel.
- All units should remain on MED 4 until they receive a MED channel assignment from CMED. Units should always have a radio set to MED 4 when responding to incidents so that CMED can access them
- All entry notifications requests should be made at least five to ten minutes before arrival to the hospital whenever possible.
- Priority 3 patient reports should be limited to age, sex, chief complaint, vital signs, pertinent findings and interventions followed by an ETA. In general priority 1 and priority 2 patients will require more information, possibly including past medical history and more detailed findings.

Entry Notification Procedures:

1. Using the CMED mobile radio microphone, ensure volume is adequate and monitor MED 4 for existing traffic. Begin speaking when MED channel 4 is clear. Allow CMED the opportunity to answer. Wait ten to fifteen seconds before re-attempting contact.
Example: *“Worcester CMED, Worcester CMED this is MedStar 2355.”*
2. Wait for CMED to respond (*“This is Worcester CMED answering MedStar 2355.”*)
3. Continue with request (*“This is MedStar 235 requesting priority 3, BLS entry notification to Leominster Hospital.”*)
4. Listen for channel assignment (*“MedStar235, go to Med 2 for Leominster, Med 2.”*)
5. Switch to the assigned channel and acknowledge (*“MedStar 2355 on 2.”*)
6. CMED will tone the hospital
7. Do not begin speaking until hospital signs on the air (*“Leominster is on line.”*)
8. Confirm that the hospital hears the radio traffic (*“Leominster, this is MedStar. How do you copy?”*)
9. When the hospital confirms, (*“Leominster reads you loud and clear, go ahead MedStar”*) begin the entry notification to include age, sex, chief complaint, pertinent findings and treatment, brief history if relevant, vital signs and ETA. A typical entry notification should be no more than 30 seconds. (*“MedStar is en route with a 35 year old female complaining of left knee pain secondary to a fall from a standing position. This is an isolated injury with no other complaints. Ice applied. Vitals are Blood Pressure 130/80, Pulse of 80, and Respirations 20. ETA 7 minutes. Any questions?”*)
10. Wait for hospital to respond or sign off (*“No questions, Leominster Clear.”*)
11. Ask CMED to clear from med channel (*“CMED, permission to clear to Med 4?”*)
12. CMED will acknowledge request if not committed to other traffic (*“MedStar you’re clear for 4.”*)
13. Clear to Med 4 if CMED does not respond after ten seconds and **briefly** note your return to Med 4 (*“MedStar 2355 back on 4.”*)

Medical Control Guidelines:

- Medical Control calls generate a distinctly different tone than the Entry Notification tone alert. This unique tone alerts the hospital that a physician is needed on the radio.
- Medical Control calls may only be answered at the hospital by an MD/DO who must identify him/herself.
- Trauma & STEMI alerts are Medical Control calls.
- EMTs must request Medical Control from their ambulance service's Affiliate Hospital Medical Director's facility if the receiving facility is not licensed to provide Medical Control.
- Medical Control calls receive the highest priority and, when necessary, other traffic will be overridden to facilitate the Medical Control call.
- A request for Medical Control should be made in the initial hailing of CMED to alert the CMED Operator that priority status is needed.

Medical Control Procedures:

1. Using the CMED radio microphone, ensure volume is adequate and monitor MED 4 for existing traffic. Begin speaking when MED channel 4 is clear. *"Worcester CMED, Worcester CMED this is AMR 2671 requesting priority 2 ALS Medical Control from UMass Adult"*
2. Listen for channel assignment (*"AMR 2671, MED 2 for UMass MedCon, MED 2"*)
3. Switch to the assigned channel and acknowledge (*"AMR 2671 on 2"*)
4. CMED will tone the hospital for Medical Control
5. Do not begin speaking until a physician signs on the air (*"UMass, Dr. Smith on line"*)
6. Confirm that the physician hears the radio traffic (*"This is AMR, how do you copy?"*)
7. When the physician confirms, (*"UMass reads you loud and clear"*) provide last name only of EMT (any level) treating patient, ETA, patient's age, sex, chief complaint, vital signs, treatment, limited history specific to the chief complaint, and request for orders (*"AMR, Paramedic Jones en route to your facility with an ETA of 10 minutes with a 72 year old male complaining of shortness of breath, history of CHF for which he's prescribed Lasix. We have him on CPAP with an O2 SAT of 88; vital signs are: B/P 180/100, sinus tachycardia on the monitor at a rate of 100, respirations 30, we have an IV line established and we're requesting 80 mg of Lasix."*)
8. The physician may ask questions then approve or deny the order (*"Hold off on the Lasix for now."*)
9. Echo the orders (*"Received; holding off on Lasix."*)
10. Listen for physician corrections and if none are made, ask CMED to clear from med channel (*"CMED, permission to clear to Med 4?"*)
11. CMED will acknowledge request if not committed to other traffic (*"AMR 2671 you're clear for 4."*)
12. Clear to Med 4 if CMED does not respond after ten seconds and briefly note your return to Med 4 (*"AMR 2671 back on 4."*)

Hospitals with Dedicated Channels

Baystate Mary Lane (MED 1)

Entry Notifications and requests for Medical Control to Baystate Mary Lane hospital are handled as all other calls, except that ambulance services will always be directed to MED 1. Once the unit hailing has been assigned to MED 1 the entry note or medical control request will continue as previously described

Athol Memorial Hospital (MED 3) and Heywood Hospital (MED 6)

Entry Notifications and requests for Medical Control to Athol Memorial and Heywood Hospital are facilitated on dedicated channels. Because units will be hailing on a dedicated line they are asked to give their priority status in the initial contact. Using the CMED mobile radio, ensure volume is adequate and monitor the appropriate MED channel (3 or 6) for existing traffic. Begin speaking when the MED channel is clear.

1. Hail CMED. (*“Worcester CMED, Worcester CMED this is Wood’s 265 requesting priority 3, ALS entry note to Heywood.”*)
2. CMED will acknowledge the request. (*Wood’s, standby on MED 6”*)
3. CMED will tone the hospital. The entry note or medical control request will continue as previously described

Alternate Patching Methods

Phone Patch Procedure

When an ambulance service requires an Entry Notification or Medical Control, but is unable to contact CMED via radio they can make their request via phone. Through the CMED emergency number, an ambulance can reach any of the thirteen hospitals that Region II CMED serves. Additionally CMED can make patches to any other locations in the state that have phone access if it is an emergency; e.g., out of region hospitals, local police/fire, etc.

1. Contact CMED via recorded phone line at **508-854-0100** or toll-free at **888-854-3111**.
2. CMED will answer: *“Worcester CMED; recorded line.”*
3. Identify your service and give destination and request (*“This is Alert 251. I need Medical Control out of UMass Pedi.”*)
4. CMED will tell you to stand-by, put you on hold and speed-dial the hospital you requested. Once the proper staff is on line, CMED will patch you into a conference call with the requested hospital.
5. The entry note or medical control request will continue as previously described.
6. CMED will monitor and record the call as any other transmission.

Repeater Operation

The CMED radio system transmits and receives on different frequencies. Units monitoring MED 4 will hear CMED but will not hear traffic from other units. On the dedicated lines (MED 3 & MED 6) the repeaters remain open and traffic from other ambulance units can be heard. At times, two or more units may need to communicate with each other (e.g. ALS intercepts, MCI communications) using MED channels. To facilitate this, CMED will open a repeater on the tower in use on the assigned MED channel, through the computer console. Due to serious feedback problems, a repeater will never be utilized on MED 4.

ALS Intercepts

While en route to a receiving facility a BLS service may need to request an ALS intercept. Region II CMED can assist the service in two ways. If the requesting unit needs an ALS unit dispatched to their location and cannot contact their own dispatch, CMED will contact the most appropriate service and make the request for them. If an ALS service has already been dispatched for the intercept, CMED can be contacted to assist with communications between the two units.

1. Using the CMED mobile radio microphone, ensure volume is adequate and monitor MED 4 for existing traffic. Begin speaking when MED channel 4 is clear. Allow CMED the opportunity to answer. Wait twenty seconds before re-attempting contact. **Example:** (“*Worcester CMED, Worcester CMED, this is Vital 226 requesting assistance with an ALS intercept.*”)
2. Wait for CMED to respond and listen for channel assignment (“*Worcester CMED answering Vital 226, go to MED 8; MED 8 and acknowledge.*”)
3. Switch to the assigned channel and acknowledge. (“*Vital 226 on MED 8*”)
4. CMED will ask for your information. (“*Vital 226 go ahead with your traffic.*”)
5. Give CMED the details of your request (“*Vital 226 is en route to UMass, BLS, requesting an ALS intercept for a patient that developed chest pain en route. We are currently headed southbound on I-190 just passing exit 3.*”)
6. CMED will have the requesting unit remain on the assigned MED channel and open the repeater while they contact the appropriate ALS provider. CMED will advise the dispatcher of the ALS unit to have them hail over the CMED radio as soon as they are en route. When the ALS service contacts CMED they will be assigned the same MED channel as the BLS unit so the two services can communicate with each other.
7. CMED will close the med channel and repeater only after both units have made the intercept or the request is canceled because of arrival at the receiving facility.

Personnel Identification

1. All personnel using EMS medical control communications must identify themselves at the beginning of each transmission.
2. Personnel identifiers should include level of certification and last name only. **Example:** “*Paramedic Jones*”

Priority Call Guidelines

Priority ONE (Immediately Life Threatening)

Immediately connect to receiving facility, override other traffic as needed.

Cardiac Arrest	Respiratory Arrest
Unstable Cardiac	Airway Obstruction
Major Head Injury	Unstable GI Bleed
Multiple Trauma	Anaphylaxis
Acute Pulmonary Edema	

Priority TWO (Life Threatening)

Connect as soon as possible to receiving facility.

Suspected Cardiac	Symptomatic Cervical Spine Injuries
CVA/Coma	Obvious Fractures/Dislocations of Joints
Unstable Medical	Unstable Trauma

Priority THREE (Non-Life Threatening)

Connect to receiving facility as soon as med channel is available.

Stable Trauma: Minor Lacerations
Suspected Fracture w/o circulatory or CNS compromise
Other Non-Acute Medical Complaints

Priority FOUR (Stable)

Connect if no other traffic requires channel

Inter-Facility/Agency Transfer

On-Scene MCI Communications Protocol

1. The first ambulance arriving on scene at an MCI must contact CMED immediately to declare an MCI. This individual acts as the Incident Command/EMS Branch Director, but will handle communications with CMED until a Transportation/Communications Supervisor can be designated. The second EMT, acting as Triage Supervisor, should initiate triage. Personnel should don a hat, jacket, or vest to identify their position. Additional ICS roles (e.g., Treatment Supervisor, Staging Supervisor) should be assigned as support arrives. The EMS command post, designated with a marker, should be set up near the police and fire command posts to simplify inter-agency communications.
2. CMED will assign a MED channel to the Transportation Supervisor for direct communications with CMED. Although responding ambulance services may monitor this MCI assigned MED channel, **ONLY** the Transportation/Communications Supervisor speaks to CMED. This channel will be kept open until the incident is resolved. The repeater will be opened to facilitate communications as needed.
3. The following information will need to be relayed to CMED:
 - a. Nature of the Incident
 - b. Incident Location
 - c. Approximate number of patients
 - d. Severity of injuries/illness
 - e. Need for additional resources
4. As patients are prepared for transport, the Transportation Supervisor will provide CMED with the following information:
 - a. Tag color or priority level
 - b. Age and gender
 - c. Type of injury/illness
5. CMED will provide the hospital destination to the Transportation Supervisor who will tell the transporting ambulance. Ambulance services transporting from the scene must **NOT** contact CMED unless the patient's condition *significantly* changes en route.
6. CMED will notify the receiving facility. **EMTs must NOT make individual entry notifications through CMED**, unless the patient's condition deteriorates en route.
7. The MCI tone will be used for each entry notification and update. CMED will provide updates to the hospital(s) as soon as they are received from the scene. **Hospitals should avoid contacting CMED for additional incident details.**

Appendix A

Region II Frequency Coordination Plan

Region II CMED Standard 1-10 (Wide Band)

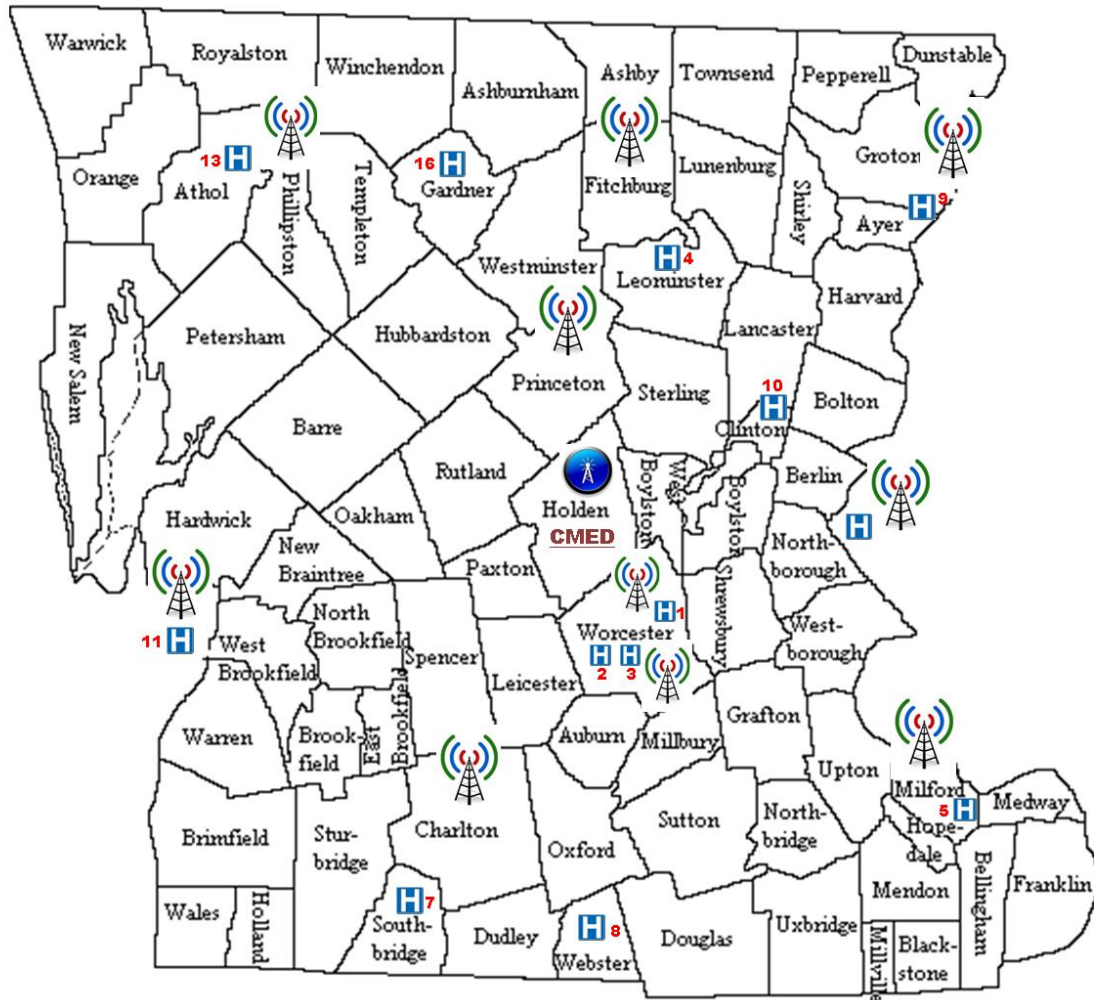
Channel Name	Receive Frequency	Transmit Frequency	Transmit/Receive
			PL / DPL
MED 1	463.000	468.000	7Z/186.2
MED 2	463.025	468.025	7Z/186.2
MED 3	463.050	468.050	7Z/186.2
MED 4	463.075	468.075	7Z/186.2
MED 5	463.100	468.100	7Z/186.2
MED 6	463.125	468.125	7Z/186.2
MED 7	463.150	468.150	7Z/186.2
MED 8	463.175	468.175	7Z/186.2
MED 9	462.950	467.950	7Z/186.2
MED 10	462.975	467.975	7Z/186.2

Region II CMED (Narrow Band)

Channel Name	Receive Frequency	Transmit Frequency	Transmit/Receive
			PL / DPL
MED 1N	463.000	468.000	2Z
MED 2N	463.025	468.025	2Z
MED 3N	463.050	468.050	2Z
MED 4N	463.075	468.075	2Z
MED 5N	463.100	468.100	2Z
MED 6N	463.125	468.125	2Z
MED 7N	463.150	468.150	2Z
MED 8N	463.175	468.175	2Z
MED 9N	462.950	467.950	2Z
MED 10N	462.975	467.975	2Z
MED 12	463.0125	468.0125	2Z
MED 22	463.0375	468.0375	2Z
MED 32	463.0625	468.0625	2Z
MED 42	463.0875	468.0875	2Z
MED 52	463.1125	468.1125	2Z
MED 62	463.1375	468.1375	2Z
MED 72	463.1625	468.1625	2Z
MED 82	463.1875	468.1875	2Z
MED 92	462.9625	467.9625	2Z
MED 102	462.9875	467.9875	2Z

Appendix B

**EMS Region II Map
Hospitals and Towers**



Hospital Key

- | | | |
|--------------------------------|-------------------------|----------------------------------|
| 1 -Umass, University Campus | 5 -Milford Hospital | 9 -Nashoba Valley Medical Center |
| 2 -St. Vincent | 6 -Marlborough Hospital | 10- Clinton Hospital |
| 3 -Umass, Memorial Campus | 7 -Harrington Memorial | 11- Mary Lane |
| 4 -Leominster, Health Alliance | 8 -HHC-Hubbard Campus | 13 -Athol Memorial |
| | | 16 -Heywood Hospital |

Appendix C

Ambulance Service CMED Identification Numbers

200	Ashburnham Fire	240	Orange Fire	280	<i>unassigned</i>
201	Ashby Fire	241	Oxford Fire	281	<i>unassigned</i>
202	Auburn Fire	242	Pepperell Fire	282	Westminster Fire
203	Ayer Fire	243	Princeton Fire	283	<i>unassigned</i>
204	Barre Amb	244	<i>unassigned</i>	284	<i>unassigned</i>
205	Bellingham Fire	245	Shirley Amb	285	<i>unassigned</i>
206	Berlin EMS	246	<i>unassigned</i>	286	Southborough Fire*
207	Bolton EMS	247	Southbridge Fire	287	Mendon Fire
208	Boylston Fire	248	Spencer EMS	288	Devens Fire
209	Brimfield Amb	249	Sterling EMS	289	<i>unassigned</i>
210	Brookfield EMS	250	Sturbridge Fire	290	<i>unassigned</i>
211	Charlton Fire	251	Alert Ambulance	291	Palmer Amb*
212	Clinton Fire	252	Templeton Fire	292	Fitchburg EMS
213	Douglas Fire	253	Townsend Fire	293	<i>unassigned</i>
214	Dudley Fire	254	Events EMS	294	Phillipston Fire
215	East Brookfield Fire	255	Upton EMS	295	<i>unassigned</i>
216	Millville Fire	256	Uxbridge Fire		
217	Franklin Fire	257	Warren Fire		
218	<i>unassigned</i>	258	Webster EMS		
219	Groton Fire	259	Westborough Fire		
220	Hardwick Rescue	260	West Boylston Fire	413	Holliston Fire*
221	Harvard Amb	261	West Brookfield Rescue		
222	Hubbardston Fire	262	Trinity EMS*		
223	Athol Fire	263	Community EMS		
224	Lancaster Amb	264	Winchendon Ambulance		
225	Leicester EMS	265	Wood's Amb		
226	Vital EMS	266	UMass EMS		
227	Leominster Fire	267	AMR*		
228	Lunenburg Fire	268	Rutland Fire		
229	Medway Fire	269	Fitchburg Fire		
230	Hopedale Fire	270	Blackstone Fire		
231	Hopkinton Fire*	271	Ware Fire*		
232	EasCare Ambulance	272	K's Transport		*out of region services
233	Patriot*	273	UMass LifeFlight		
234	Holden Fire	274	<i>unassigned</i>		
235	Med Star	275	LifeLine Ambulance		
236	Northborough Fire	276	<i>unassigned</i>		
237	Northbridge Fire	277	<i>unassigned</i>	2C1	Executive Director
238	North Brookfield EMS	278	<i>unassigned</i>	2C2	Assistant Director
239	Oakham Fire	279	Marlboro/Hudson	2C3	CMED Supervisor

Athol Memorial Hospital*

2033 Main Street
Athol, MA 01331
(978)249-3511
(978)249-5617 ED Fax
www.atholhospital.com

Harrington Hospital*

100 South Street
Southbridge, MA 01550
(508)765-9771
(508)765-3195 ED
(508)764-2448 ED Fax
www.harringtonhospital.org

Harrington HealthCare at Hubbard

340 Thompson Road
Webster, MA 01570
(508)943-2600
(508)949-6011 ED Fax

Heywood Hospital*

242 Green Street
Gardner, MA 01440
(978)632-3420
(978)630-6592 ED Fax
www.heywood.org

Milford Regional Medical Center*

14 Prospect Street
Milford, MA 01757
(508)473-1190
(508)422-2240 ED
(508)634-3276 ED Fax
www.milfordregional.com

Nashoba Valley Medical Center*

200 Groton Road
Ayer, MA 01432
(978)784-9000
(978)784-9218 ED Fax
www.steward.org/Nashoba-Valley

Saint Vincent Hospital*

123 Summer Street
Worcester, MA 01608
(508)363-5000
(508)363-6025 ED
(508)363-9597 ED Fax
www.stvincenthospital.com

**UMass Memorial Healthcare,
Clinton Hospital***

201 Highland Street
Clinton, MA 01510
(978)368-3000
(978)368-3757 ED Fax
www.ummhc.org

**UMass Memorial Healthcare,
HealthAlliance Hospital, Leominster Campus**

60 Hospital Road
Leominster, MA 01453
(978)466-2000
(978)466-2570 ED Fax
www.ummhc.org

**UMass Memorial Healthcare,
UMass Memorial Medical Center***

(508)334-1000 All Departments
www.ummhc.org

Memorial Campus

119 Belmont Street
Worcester, MA 01605
(508)334-6481
(508)334-6002 ED Fax

University Campus

55 Lake Ave North
Worcester, MA 01655
(508)334-3511 ED
(508)856-6600 ED Fax

**Out of Region Hospitals Receiving Region II
CMED Communications:**

Baystate Mary Lane Hospital*

85 South Street
Ware, MA 01082
(413)967-6211
(413)967-2599 ED Fax
www.baystatehealth.com

**UMass Memorial Healthcare,
Marlborough Hospital***

157 Union Street
Marlborough, MA 01752
(508)481-5000
(508)229-1205 ED Fax
www.ummhc.org

*licensed to provide medical control

Appendix E

Standard Radio Terminology and Definitions

Affirmative: Yes

Antenna: A component of a radio which emits and/or receives the radio frequency radiation. It is connected to the radio set itself. Antennae are placed in high locations, when possible, in order to be free from interference and achieve maximum performance.

ALS: Advanced Life Support

Base Station: A radio transmitter/receiver in a fixed location used to communicate with mobile units; commonly located in remote locations close to the attached antenna.

Base Station Repeater: A base station that operates as a mobile relay but has dedicated control from a control point; (see mobile relay.)

BLS: Basic Life Support

Channel: A specific radio path that is employed by users when they communicate. A channel may consist of a single frequency or a group of frequencies, often in pairs.

Clear: Available for reassignment; ending communications on channel

CMED: Central Medical Emergency Direction; A regionalized communications center that coordinates EMS communications in a designated area.

Control Point: The location from which a base station is primarily controlled.

Control Station: A radio transmitter/receiver in a fixed location intended to be used for communicating with another fixed station such as a mobile relay.

Dedicated Line: A special type of telephone line typically used as a radio control circuit; not a part of the public switch telephone network (PSTN)

Dispatch Center: A communications center where a request for service is received and appropriate resources are deployed.

ED: Emergency Department

EMS: Emergency Medical Services

EMT: Emergency Medical Technician; three levels are recognized in the Commonwealth: EMT-Basic, EMT-Intermediate, and EMT-Paramedic.

ETA: Estimated Time of Arrival

FCC: The Federal Communications Commission; an independent government agency, directly responsible to Congress. The FCC is charged with regulating interstate and international communications by radio, television, wire, satellite and cable. Their jurisdiction covers the 50 states, District of Columbia, and U.S. possessions.

Frequency: The specific measurement of a signal, expressed in Hertz (cycles per second); In common usage, similar to channel.

HHAN: Health and Homeland Alert Network

HAZMAT: Hazardous Materials

HEAR RADIO: Hospital Emergency Administrative Radio; Commonly used to refer to the VHF radio channel 155.340 which became the primary EMS channel prior to the development of UHF radio for EMS. HEAR is a trade name of the Motorola Corporation. The channel, and the acronym, is still widely used.

IC: Incident Command/Incident Commander

ICS: Incident Command System

Land Mobile Radio: As defined by the FCC, all two-way radio facilities whose primary use is for private communication between mobile units and base stations.

MCI: Mass (or multiple) casualty incident

MDPH: Massachusetts Department of Public Health

MED Channel: EMS channels in the UHF band are labeled by "MED #" by common usage and FCC Rule. MED 1 through MED 8 are channels with MED 4 used as a common calling channel. MED 9 and MED 10 are used for dispatch and mutual aid/resource coordination; (see Frequency Table, page 14

Mobile: A radio unit that is installed in a vehicle. A mobile unit consists of an antenna, a control head and the radio set. The latter item is usually located in an out of the way spot such as behind a front seat.

Narrowband: Frequency operating at 12.5 MHz band width

OEMS: The Office of Emergency Medical Services; part of the Massachusetts Department of Public Health that is charged with licensing ambulance services, certifying EMTs and accrediting EMS training institutions within the Commonwealth. OEMS also develops, implements and enforces regulations, administrative requirements and other policies for EMS in the Commonwealth; develops and updates the EMS Pre-hospital Treatment Protocols; and approves local Service Zone plans for EMS delivery. OEMS also administers federal grants that support EMS.

Out: Finished/concluding all communications

Over: Finished transmission, expecting reply

Patch: Colloquial term used to describe a method to connect two parties who require communications who otherwise cannot communicate directly. Common EMS usage refers to an ambulance being "patched" by CMED to one or more hospitals. Cross-channel patching refers to the connecting of one radio channel to a separate radio channel. Telephone patching refers to radio to telephone connections; also called interconnection.

Portable Radio: A type of mobile unit that can be carried. Portables are less powerful than a mobile and thus poorer communications can be a problem. Also see mobile repeater.

PTT: Push-to-Talk; A switch on a microphone or handset that activates a radio's transmitter when depressed.

Remote Control Console: A piece of radio equipment that controls a base station. Typically hospitals have "remotes" located in their emergency departments.

Regional EMS Council: An entity created pursuant to M.G.L. c. 111C, §4 and designated by the Massachusetts Department of Public Health (MDPH) to assist the MDPH in establishing, coordinating, maintaining and improving the EMS system in a geographic area of the state defined by MDPH for EMS planning purposes.

Relay: Repeat message verbatim from one station to another

Repeater: A radio which is designed to re-transmit a signal received from another unit. See mobile relay, mobile repeater, and/or base station repeater. In common usage, repeater refers to a mobile relay.

Squelch: An electronic feature of a radio which eliminates unwanted noise or signals from the loudspeaker. Standard squelching operates when there is no carrier on the frequency present at the receiver.

Stand-by: Do not transmit again until called upon; wait.

Traffic: Radio messages; transmissions

UHF: Ultra-High Frequency; The portion of the radio spectrum between 300 MHz and 1.000 MHz (1 GHz). UHF EMS communications use frequencies in the 460 MHz portion of the UHF band.

VHF: Very-High Frequency; The portion of the radio spectrum between 30 MHz and 300 MHz. Two-way radio VHF is further broken down into low band (30 MHz -50 MHz) and high band (150 MHz -174 MHz). Most EMS VHF frequencies are in the 155 MHz portion of the VHF band.

Wide Band: Frequency operating at 25 MHz band width

Central MA EMS Corp.
361 Holden Street
Holden, MA 01520
(508) 854-0111 office
(508) 853-3672 fax
(508) 854-0100 CMED

Incident Report

Reported by: _____ Date: _____

Email (for follow-up): _____ Service: _____

Incident Date: _____ Incident Time: _____

EMT#1 _____ EMT#2 _____

Hospital: _____ Medical Control MD: _____

Narrative (print legibly and attach additional pages as needed):

-----CMEMSC Use Only-----

Supervisor Review/Action: _____ Call Code Number: _____

Administrative Determination/Resolution:

Reviewed by (initial): CMED Supervisor _____ Assistant Director _____ Director _____

Feedback provided to CMED Operator (if needed) by _____

Central MA EMS Corp.
361 Holden Street
Holden, MA 01520
(508) 854-0111 office
(508) 853-3672 fax
(508) 854-0100 CMED

CMED Transmission Request

Transmission Date _____ Time _____

Service/Facility Involved _____

EMT#1 _____ EMT#2 _____

Reason for Request:

Requested by _____
Print Name Title

Email Affiliation

Signature Date

-----CMEMSC Use Only-----

Approved by _____
Executive Director Date

Released by _____
CMED Supervisor Date

Central MA EMS Corp.
361 Holden Street
Holden, Ma 01520
508-854-0111
508-853-3672 fax
www.cmemsc.org

Communications Failure Report

Submit form to CMEMSC within 72 hours of incident.

Date: _____ Time of CMED Patch: _____ Type of Patch: Radio Phone

Ambulance Service: _____ Unit ID #: _____ Level: ALS BLS

EMT _____ Email (for follow-up) _____

Medical Con Hospital: _____ Med Con Doctor: _____

Receiving Hospital (If different from above): _____

Patient Information

Age: _____

Sex: Male Female

Chief Compliant: _____

Requested Order: _____

Treatment Given: _____

Description of Communication Failure: _____

Received By CMEMSC : _____ Date: _____

Received By Region II Medical Director: _____ Date: _____

Administrative Determination/Action: _____

Follow-up provided to EMT by: _____ Date: _____