

CARE AT THE SCENE ISSUES IN RURAL EMS

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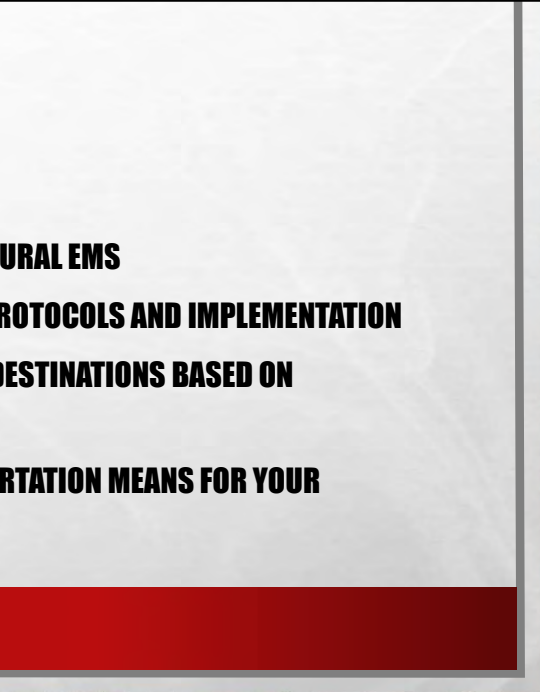


The slide features a white background with a red border at the top and bottom. The title 'CARE AT THE SCENE ISSUES IN RURAL EMS' is written in large, bold, red letters. Below the title, the presenter's name and affiliation are listed in black. Two logos are positioned at the bottom: 'LifeNet Air Medical Services' on the left and 'StarCare' on the right. Both logos include the text 'Owned and Operated by Air Methods'.

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OBJECTIVES

- 1. RECOGNIZE THE DIFFERENCES FROM URBAN TO RURAL EMS**
- 2. UNDERSTAND THE CHALLENGES OF RURAL EMS PROTOCOLS AND IMPLEMENTATION**
- 3. RECOGNIZE AND SELECT APPROPRIATE PATIENT DESTINATIONS BASED ON EVALUATION**
- 4. RECOGNIZE AND SELECT APPROPRIATE TRANSPORTATION MEANS FOR YOUR PATIENTS**



The slide has a white background with a red border at the bottom. The word 'OBJECTIVES' is written in large, bold, red letters. Below it, four numbered objectives are listed in bold black text. In the background, there is a faint, light-colored image of a person wearing a white lab coat.

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AGENDA

- ❖ **RURAL EMS – WHERE DID WE COME FROM AND WHERE ARE WE GOING**
- ❖ **CASE BASES SCENARIOS**
- ❖ **PATIENT DESTINATIONS**
- ❖ **TRANSPORTATION OPTIONS**
- ❖ **WE KNOW WHERE WE ARE GOING – HOW DO WE GET THERE?**

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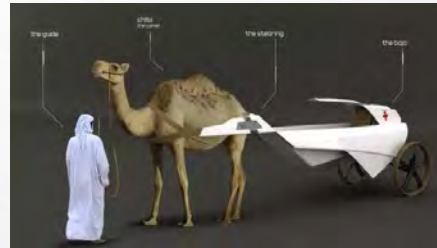
ORIGIN OF EMS

- **TRACES BACK TO THE CIVIL WAR**
- **AMBULANCE TEAMS TRAINED IN PATIENT CARE TO TAKE BETTER CARE OF SOLDIERS**
- **1860'S SOME OF THE FIRST URBAN INCORPORATED CIVIL AMBULANCES**
- **1966 "NATIONAL HIGHWAY TRAFFIC SAFETY ACT"**
 - **STANDARDIZED EMS TRAINING**
- **1973 "EMS SYSTEMS ACT"**
- **1996 "EMS AGENDA FOR THE FUTURE"**

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RURAL EMS

- FUNERAL HOME BASED AMBULANCES
- VOLUNTEER RESCUE SQUADS AND AMBULANCES
- PAID AMBULANCE SERVICES



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PRE-HOSPITAL LIFE SUPPORT BLS VERSUS ALS

- AIRWAY MANAGEMENT
- IV ACCESS
- HEART MONITOR
- MEDICATIONS



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SCENE TRANSPORT OPTIONS

- 1. SCENE TO NEAREST HOSPITAL
- SCENE RENDEZVOUS WITH ALS INTERCEPT BY GROUND
- 2. SCENE TO NEAREST SPECIALTY RECEIVING FACILITY BY GROUND AMBULANCE
 - I.E. – LEVEL 1 TRAUMA; PCI CATH LAB; STROKE CENTER
- 3. SCENE TO NEAREST SPECIALTY RECEIVING FACILITY BY AIR MEDICAL



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INTERFACILITY TRANSPORT OPTIONS

- **1. TO NEAREST APPROPRIATE RECEIVING FACILITY BY GROUND AMBULANCE**
 - **I.E. – LEVEL 1 TRAUMA; PCI CATH LAB; STROKE CENTER**
- **2. TO NEAREST APPROPRIATE RECEIVING FACILITY BY AIR MEDICAL**



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INTERFACILITY TRANSPORT OPTIONS

EMTALA

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OTHER SCENE TRANSPORT OPTIONS

- **SCENE TO NEAREST HOSPITAL HELIPAD - RENDEZVOUS**

HOSPITAL STAFF PLEASE STAY AWAY!

- **SCENE TO NEAREST AIRPORT**

- **SCENE TO AVAILABLE LZ IN BETWEEN**



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SCENE SAFETY / B S I



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CASE SCENARIO – 1

- **VOLUNTEER FIRE/EMS, POPULATION IN TOWN 1,100
IN COUNTY OF 4,500 COVERING 900 SQUARE MILES**
- **COMMUNITY HOSPITAL 20 MINUTES AWAY**
- **2 HOURS FROM METROPOLITAN AREA**

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CASE 1 – TRAUMA – LOL

- **YOU ARE CALLED TO A RURAL RESIDENCE APPROXIMATELY 18 MILES FROM YOUR FIRE
STATION FOR AN 82 Y O FEMALE HAVING FALLEN AND IS UNRESPONSIVE**
- **RESPONSE TO STATION TIME – 6 MINUTES**
- **RESPONSE TO SCENE TIME – 22 MINUTES**
- **ON SCENE TIME**
 - **BLS – 10 MINUTES**
 - **ALS – 17 MINUTES**
- **TRANSPORT TIME TO COMMUNITY HOSPITAL – 18 MINUTES**

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CASE 1 – TRAUMA – LOL

- **NEAREST TRAUMA CENTER (GROUND TRANSPORT)**
 - **FROM YOUR LOCATION – 1 HOUR 45 MINUTES**
 - **FROM COMMUNITY HOSPITAL – 1 HOUR 15 MINUTES**

- **NEAREST TRAUMA CENTER (AIR TRANSPORT ROTOR WING)**
 - **FROM YOUR LOCATION – 55 MINUTES**
 - **FROM COMMUNITY HOSPITAL – 45 MINUTES**



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GROUND - SCENE TO HOSPITAL

Response	6
To Scene	22
On Scene	17
To Hospital	18
total minutes:	63

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GROUND - SCENE TO TRAUMA CENTER

Response	6
To Scene	22
On Scene	17
Scene to Trauma Ground	<u>105</u>
total minutes:	150

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AIR MEDICAL - SCENE TO TRAUMA CENTER

Response	6
To Scene	22
On Scene	17
Add'l. Scene Air Resp.	0
Scene to Trauma by Air	<u>55</u>
total minutes:	100

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GROUND - HOSPITAL TO TRAUMA CENTER

Response	6
To Scene	22
On Scene	17
To Hospital	18
Transfer time	30
Hospital to Trauma Ground	75
total minutes:	168

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AIR - HOSPITAL TO TRAUMA CENTER

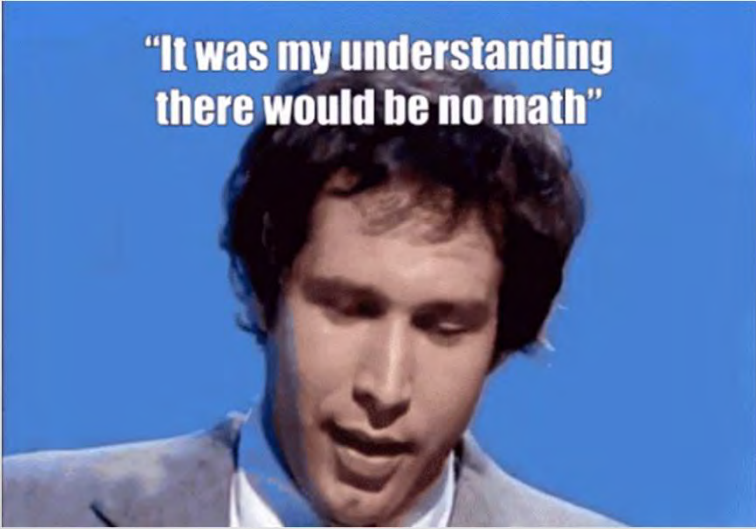
Response	6
To Scene	22
On Scene	17
To Hospital	18
Transfer Time	30
Add'l. Hospital Air Resp.	0
Hospital to Trauma by Air	45
total minutes:	138

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CASE 1 – TRAUMA.....SUMMARY

- **TOTAL RESPONSE NOTIFICATION TO FINAL RECEIVING (GROUND TRANSPORT)**
 - **FROM YOUR LOCATION – 150 MINUTES (2 HOURS 30 MINUTES)**
 - **FROM COMMUNITY HOSPITAL – 168 MINUTES (2 HOURS 48 MINUTES)**
- **TOTAL RESPONSE NOTIFICATION TO FINAL RECEIVING (AIR TRANSPORT ROTOR WING)**
 - **FROM YOUR LOCATION – 100 MINUTES (1 HOUR 40 MINUTES)**
 - **FROM COMMUNITY HOSPITAL – 138 MINUTES (1 HOUR 18 MINUTES)**

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"It was my understanding
there would be no math"

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CASE SCENARIO – 2

- **PAID HOSPITAL BASED EMS, POPULATION IN TOWN 5,200 IN COUNTY OF 11,500 COVERING 800 SQUARE MILES**
- **COMMUNITY HOSPITAL IN TOWN**
- **1 HOUR FROM METROPOLITAN AREA**

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CASE 2 – TRAUMA – CARDIAC

- **YOU ARE CALLED TO A MVA IN TOWN FOR A 64 Y O MALE WITH CHEST PAIN**
- **RESPONSE TO STATION TIME – 0 MINUTES, RESPONSE TO CALL – 1 MINUTE**
- **RESPONSE TO SCENE TIME – 4 MINUTES**
- **ON SCENE TIME**
 - **BLS – 10 MINUTES**
 - **ALS – 17 MINUTES**
- **TRANSPORT TIME TO COMMUNITY HOSPITAL – 3 MINUTES**

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CASE 2 – TRAUMA – CARDIAC

- **NEAREST TRAUMA CENTER (**GROUND** TRANSPORT)**
 - **FROM YOUR LOCATION – 51 MINUTES**
 - **FROM COMMUNITY HOSPITAL – 50 MINUTES**

- **NEAREST TRAUMA CENTER (**AIR** TRANSPORT ROTOR WING)**
 - **FROM YOUR LOCATION – 26 MINUTES**
 - **FROM COMMUNITY HOSPITAL – 25 MINUTES**



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CASE 2 – CARDIAC – TRAUMA.....SUMMARY

- **TOTAL RESPONSE NOTIFICATION TO FINAL RECEIVING (**GROUND** TRANSPORT)**
 - **FROM YOUR LOCATION – 1 HOUR 12 MINUTES**
 - **FROM COMMUNITY HOSPITAL – 1 HOUR 45 MINUTES**

- **TOTAL RESPONSE NOTIFICATION TO FINAL RECEIVING (**AIR** TRANSPORT ROTOR WING)**
 - **FROM YOUR LOCATION – 61 MINUTES**
 - **FROM COMMUNITY HOSPITAL – 1 HOUR 20 MINUTES**

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CASE SCENARIO – 3

- **VOLUNTEER FIRE/EMS, POPULATION IN TOWN 900
IN COUNTY OF 2,500 COVERING 600 SQUARE MILES**
- **COMMUNITY HOSPITAL 15 MINUTES**
- **45 MINUTES FROM LEVEL I TRAUMA CENTER**

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CASE 3 – TRAUMA – EJECTION

- YOU ARE CALLED FOR A MOTORCYCLE ACCIDENT APPROXIMATELY 5 MILES FROM TOWN
- RESPONSE TO STATION TIME – 7 MINUTES
- RESPONSE TO SCENE TIME – 5 MINUTES
- ON SCENE TIME
 - BLS – 5 MINUTES
 - ALS – 10 MINUTES
- TRANSPORT TIME TO COMMUNITY HOSPITAL – 20 MINUTES – IN THE OPPOSITE DIRECTION OF THE TRAUMA CENTER

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CASE 3 – TRAUMA – EJECTION

- NEAREST LEVEL I TRAUMA CENTER (**GROUND** TRANSPORT)
 - FROM YOUR LOCATION – 40 MINUTES
 - FROM COMMUNITY HOSPITAL – 1 HOUR
- NEAREST LEVEL I TRAUMA CENTER (**AIR** TRANSPORT ROTOR WING)
 - FROM YOUR LOCATION – 18 MINUTES
 - FROM COMMUNITY HOSPITAL – 28 MINUTES



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CASE 3 – TRAUMA – EJECTION.....SUMMARY

- **TOTAL RESPONSE NOTIFICATION TO FINAL RECEIVING (**GROUND** TRANSPORT)**
 - **FROM YOUR LOCATION – 1 HOUR 2 MINUTES**
 - **FROM COMMUNITY HOSPITAL – 2 HOUR 12 MINUTES**

- **TOTAL RESPONSE NOTIFICATION TO FINAL RECEIVING (**AIR** TRANSPORT ROTOR WING)**
 - **FROM YOUR LOCATION – 40 MINUTES**
 - **FROM COMMUNITY HOSPITAL – 1 HOUR 40 MINUTES**

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CASE SCENARIO – 4

- **VOLUNTEER FIRE/EMS (8 AGENCIES), POPULATION IN COUNTY 7,000 COVERING 400 SQUARE MILES**
- **COMMUNITY HOSPITALS AT SOUTH END, WEST END AND EAST END OF COUNTY**
- **45 MINUTES FROM LEVEL I TRAUMA CENTER TO NORTH**

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CASE 4 – TRAUMA – MASS CASUALTY

- **YOU ARE CALLED FOR A MOTOR VEHICLE ACCIDENT ON A RURAL INTERSTATE HIGHWAY INVOLVING 5 VEHICLES WITH MULTIPLE ROLL OVERS**
 - **5 PATIENT EJECTIONS**
 - **2 PATIENTS WITH CPR IN PROGRESS**
 - **UNKNOWN NUMBER NEEDING EXTRICATION**
- **TRANSPORT TIME TO 2 COMMUNITY HOSPITALS – 15 MINUTES**
- **TRANSPORT BY GROUND TO NEAREST TRAUMA CENTER – 45 MINUTES**

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CASE 4 – TRAUMA



- **IN ROUTE – WHAT DO YOU WANT?**
 - **YOU HAVE: 4 TOWNS RESPONDING WITH TOTAL OF 4 ALS AND 3 BLS AMBULANCES**
 - **YOU HAVE: 2 HELICOPTERS RESPONDING ETA OF 20 MINUTES AND 30 MINUTES**
- **ON SCENE – WHAT DO YOU SEE?**
 - **LAW ENFORCEMENT PERFORMING CPR ON 2 PATIENTS WITH BY-STANDER ASSIST**
 - **TOTAL OF 8 PATIENTS WITH MINIMAL EXTRICATION NEEDED**
- **HOW DO YOU WANT TO TRANSPORT AND TO WHERE?**

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TRIAGE – RESOURCES AVAILABLE?



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HOW DO WE GET THERE?

- **PLANNING BOTH INTERNALLY AND INTEROPERABILITY WISE**
- **SCENE SIZE UP – FROM THE FIRST PAGE / NOTIFICATION**
 - **BEING ADAPTABLE**
- **RE-ASSESS THE SITUATION**
 - **CONSIDER INFLUENCING FACTORS – I.E. WEATHER, TERRAIN, RESOURCES**
- **MAKE THE CALL!!!!!!!!!!!!!! EARLY!!**
 - **MUTUAL AID – AIRCRAFT ON STANDBY – ALERT (STROKE, CARDIAC, TRAUMA)**
- **ADAPT – ADAPT – ADAPT**



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HOW DO WE GET THERE?

- PROVIDER RETENTION AND RECRUITMENT
- EMS AND FUNDING



.....OPTIONS????????

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REFERENCES

- **COMBS – DRAWN BY FIRE**
- [HTTPS://TENOR.COM/VIEW/CHEVY-CHASE-NO-MATH-I-IT-WAS-MY-UNDERSTANDING-GIF-10804060](https://tenor.com/view/chevy-chase-no-math-i-it-was-my-understanding-gif-10804060)
- **SIDNEY, IA VOLUNTEER FIRE & RESCUE**
- **SHENANDOAH, IA EMS – SHENANDOAH, IA MEDICAL CENTER**
- **LIFE NET OF THE HEARTLAND AIR MEDICAL – AIRMETHODS.COM**
- **STATE OF IOWA BUREAU OF EMERGENCY AND TRAUMA SERVICES - EMS COMPASS AND PERFORMANCE MEASURES - [HTTPS://NASEMSO.ORG/PROJECTS/EMS-COMPASS/](https://nasems.org/projects/ems-compass/)**

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