THE DELIVERY OF EMERGENCY HEALTH CARE

I. THE CRISIS IN MEDICINE TODAY CONTINUES TO BE THE DELIVERY OF EMERGENCY CARE.

OF WHOM ARE WE SPEAKING? WE ARE SPEAKING OF THE CRITICALLY ILL OR INJURED PATIENT WHO'S PROBLEM IS LIFE-THREATENING .

A PATIENT WHO IF NOT PLACED IN A CONTROLLED ENVIRONMENT IN THE SHORTEST PERIOD OF TIME WILL SUCCUMB. IT IS THIS PATIENT THAT ANY EMERGENCY MEDICAL SYSTEM SHOULD AIM TO MAKE ITS GREATEST IMPACT. THE PATIENT WHO WILL DIE IF IMMEDIATE ATTENTION IS NOT GIVEN.

THE SECOND IS THAT PATIENT WHO IF NOT PLACED IN THE PROPER SYSTEM WILL RESULT IN A LIFETIME OF DISABILITY - TRAUMA IS A YOUNG PERSON'S DISEASE - LONG LIFE AND WE ALL PAY FOR A LONG TIME.

THE THIRD - THIS TYPE OF PATIENT IS NO PROBLEM - HE GETS WELL INSPITE OF HIS CARE.

<u>WHY IS THERE A CRISIS IN EMERGENCY HEALTH CARE DELIVERY?</u>

LET US LOOK AT THE DILEMMA IN EMERGENCY CARE THAT WE IN MARYLAND ARE SOLVING BUT MANY AREAS IN THIS COUNTRY ARE STILL HAVING:

FIRST, LET US LOOK AT THE MEDICAL PROFESSION: MEDICAL SCHOOLS DON'T TEACH TRAUMA NOR EMERGENCY CARE IN ANY SYSTEMIZED WAY. TRAUMA EDUCATION HAS ALWAYS BEEN STRUCTURED AT THE HOUSE STAFF LEVEL. TRAUMA AND SHOCK, AS AREAS OF SPECIAL INTEREST, HAVE ATTRACTED FEW SUPPORTERS. OUR MEDICAL SCHOOLS DON'T GIVE AS GOOD EMT TRAINING AS THE AMBULANCE ATTENDANT NOW RECEIVES IN MARYLAND. AT THIS POINT, I WOULD RATHER BE TREATED BY ONE OF YOU PEOPLE ONTHE SCENE THAN THE PHYSICIAN IN THE EMERGENCY ROOM BECAUSE YOU ARE BETTER TRAINED.

SECOND, HOSPITAL ATTITUDE IS ONE OF APATHY IN FAILING TO PROVIDE ANCILLARY SUPPORT. EMERGENCY ROOM HAS BECOME THE OVERBURDENED OUTPATIENT DEPARTMENT ON NIGHTS, WEEKENDS, AND HOLIDAYS MAKING GOOD TRAUMA CARE IMPOSSIBLE. CHEMISTRY AND BLOOD BANKS, LABORATORIES AND X-RAY SO ESSENTIAL FOR CARE ARE NOT AVAILABLE ON NIGHTS, WEEKENDS AND HOLIDAYS, WHEN INCIDENCE OF INJURY IS GREATEST.

THIRD, PUBLIC ATTITUDE IS ONE OF INDIFFERENCE. INJURIES ARE SUDDEN, MUTILATING, GRUESOME, DISTASTEFUL, AND INDICATIVE OF UNLIKELY SURVIVAL. AS A RESULT, TH THE LAYMAN, PERFUNCTORY TREATMENT IS ACCEPTABLE. SO VICTIMS ARE ALLOWED

HOSPITAL AND PUBLIC HAVE NOT ACCEPTED THEIR RESPONSIBILITY IN TRYING TO IMPROVE THIS DESPERATE SITUATION.

II. COST OF THE CRISIS - IN HUMAN LIFE
- IN DOLLARS SPENT

A. 10-MINUTE TALK

1. 2 PEOPLE DIE EVERY 10 MINUTES
2. COST - 1/2 MILLION DOLLARS

B. VIETNAM

1. 372 DEATHS PER WEEK
2. AUTOS - 1,000 DEATHS PER WEEK
3. COMPARISON - 10 YEARS VIETNAM/ 1 YEAR AUTO

C. BLOOD VESSEL DISEASE

1. EVERY OTHER PERSON IN THIS ROOM OVER THE AGE OF 45 WILL DIE FROM THIS DISEASE.
2. OF THESE PEOPLE, 70% WILL BE HEART ATTACK VICTIMS.
3. OF THE HEART ATTACK VICTIMS, 65% WILL NEVER REACH A HOSPITAL - 350,000 - SYMPTOMS 2 OR MORE HOURS

D. ACCIDENTS

1. GREATEST KILLER AGES 1-37 YEARS
2. SECOND/AGES 1-45 YEARS
3. THIRD OVERALL

TOGETHER, SUDDEN DEATH FROM HEART ATTACKS AND ACCIDENTAL DEATH ARE RESPONSIBLE FOR ONE-FOURTH OF ALL MORTALITIES IN THE U.S. ANNUALLY. HOWEVER, AGGRESSIVE EMERGENCY MEDICAL CARE WITHOUT DELAY, MADE POSSIBLE BY A PREPLANNED, WELL-ORGANIZED SYSTEM OF RESPONSE, COULD SAVE MANY OF THESE VICTIMS.

CANCER AND HEART DISEASE NEED NEW DISCOVERIES.

III. A SYSTEM APPROACH NEEDED FOR TRAUMA

IT DOES APPEAR THAT AT LAST BOTH THE POLITICIAN AND THE LAY PUBLIC ARE AWAKENING TO THE ECONOMIC BENEFIT AND SALVAGE OF HUMAN LIFE WHICH COULD RESULT SIMPLY FROM THE REGROUPING AND REORGANIZING OF EXISTING FACILITIES AS DEMONSTRATED BY ALLOCATION OF FEDERAL FUNDS. FOR ACCEPTABLE PRESENT DAY EMERGENCY CARE OF THE CRITICALLY INJURED, CONSIDERATION MUST BE GIVEN TO BOTH THE MORE RECENT SYSTEMS APPROACH FOR PREHOSPITAL CARE AND THE MORE RECENT CONCEPTS OF ACTUAL PATIENT MANAGEMENT ONCE WITHIN THE HOSPITAL DOORS.

IV. WHAT HAVE WE LEARNED AT MIEM

A. IN A TRAUMA ENVIRONMENT WE ALREADY KNOW THAT WE WILL SEE THREE KINDS OF PATIENTS:

1. THOSE WHO WILL DIE
2. THOSE WHO WILL SURVIVE
3. THOSE WHO WILL DIE IF SOMETHING IS NOT DONE IMMEDIATELY

TRIAGE, THEREFORE, BECOMES A KEY WORD IN ANY HEALTH CARE DELIVERY SYSTEM BOTH AT THE SCENE OF THE EMERGENCY AND AT THE AREA OF DEFINITIVE CARE.

B. ANIMAL RESEARCH - OUR EXPERIENCE

C. THE GOLDEN HOUR

1. BRIEF STATEMENT OF WHAT WE HAVE LEARNED SINCE 1960 in OUR TRAUMA CENTER PROGRAM.
2. OTHERS - SUCH AS FRY REPORT THAT FOR EVERY 30 MINUTES THAT ELAPSE BETWEEN THE ACCIDENT AND THE TIME THE PATIENT GETS DEFINITIVE CARE, THE MORTALITY RATE CAN BE EXPECTED TO INCREASE THREEFOLD
3. ANALYSIS OF MILITARY CASUALTIES AS WELL AS OUR OWN REVEALS THAT MORTALITY VARIES INVERSELY WITH THE LENGTH OF TIME INTERVENING BETWEEN INJURY AND DEFINITIVE THERAPY.
4. RURAL MORTALITY - 70% - WHY?

PARADOX - BEST HOSPITALS IN LARGE CITIES -

MANY EMPTY

5. SO IN SUMMARY WE HAVE:

- INADEQUATE CARE AT THE SCENE
- INADEQUATE TRANSPORTATION AND CARE ENROUTE
- INADEQUATE CARE FACILITIES

V. THE MIEM PROGRAM GOAL SINCE 1960

A. ANY CITIZEN WITHIN THE STATE OF MARYLAND HAS THE RIGHT TO THE VERY BEST CARE ACCORDING TO THE STATE OF THE ART AND NOT ACCORDING TO WHERE THE ACCIDENT OCCURRED, THE EXTENT, OR SEVERITY OF THE INJURY/

B. TO ACCOMPLISH THIS LOFTY GOAL, THERE HAD TO BE A PROGRAM IMPLEMENTED TO GET THE EMERGENCY CRITICALLY ILL AND INJURED IMMEDIATELY TO A FACILITY IN LESS THAN ONE HOUR. THEREFORE, THE MARYLAND AIR MED-EVAC PROGRAM WAS ESTABLISHED

DISCUSS: PROBLEMS WITH THE AMBULANCE CREWS
HOW THE SYSTEM WORKS NOW – CLOSE COOPERATION BETWEEN THE TWO AGENCIES

C. SPECIALTY CARE CENTERS ESTABLISHED AND NOW REGIONALIZATION WITH ESTABLISHMENT OF TRAUMA CARE CENTERS.

D. THE SYSTEM DEVELOPED HAD TO BE COST EFFECTIVE

VI. SYSTEMS APPROACH

IT IS IMPOSSIBLE FOR ME TO DESCRIBE WITH ANY DEPTH OUR SYSTEMS APPROACH BUT I WOULD LIKE TO REVIEW THE ESSENTIAL COMPONENTS OF SUCH A SYSTEMATIZED EMERGENCY MEDICAL SERVICE DELIVERY PROGRAM.

FIRST, I WOULD LIKE TO SAY THAT THE EMS CONCEPT DEVELOPED IN THIS COUNTRY COVERS ANY EMERGENCY IN WHICH THE EMT, PHYSICIAN, AND/OR NURSE IS INVOLVED AND THEREFORE A SYSTEMS APPROACH TO THIS PROBLEM MUST ENCOMPASS THESE THREE GROUPS.

A. EDUCATION AND TRAINING

SHOULD BE GEARED TO UTILIZE EXISTING RESOURCES FOR TRAINING WHENEVER POSSIBLE.

1. EMT - BASIC LIFE SUPPORT

81 HOUR D.O.T. COURSE -

BUILDING BLOCK FOR ADVANCED LIFE SUPPORT

CARDIAC RESCUE	140 hrs.
SHOCK TRAUMA	40 hrs.
CRASH INJURY MANAGEMENT	40 hrs.
RESPIRATION	20 hrs.

IN MARYLAND THE AMBULANCE CREWS AND RESCUE SQUADS WANT TRAINING AND ARE CONTINUOUSLY ASKING FOR MORE. AS

DIRECTOR OF THE STATEWIDE EMS PROGRAM, THIS PLEASES ME GREATLY AND I AM EXTREMELY PROUD OF THE JOB BEING DONE IN OUR STATE BY THESE PEOPLE.

2. MEDICAL/NURSING EDUCATION & TRAINING PROGRAMS

   a. OUTREACH

   b. INHOUSE

   c. SEMINARS

   d. AUDIO-VISUALS (DISCUSS YOUR CONCEPT OF USING THESE FOR EMT TRAINING)

THE NURSES IN MARYLAND ARE VERY MUCH LIKE THE AMBULANCE CREWS AND RESCUE SQUADS IN WANTING TRAINING AND WE HAVE A VERY SUCCESSFUL STATEWIDE NURSING SEMINAR PROGRAM UNDERWAY IN MARYLAND. THIS YEAR WE ARE INITIATING A PHYSICIAN SEMINAR PROGRAM ALONG THE SAME LINES AS THE NURSING PROGRAM. THE NURSES AND EMTS ARE SO WELL TRAINED THAT WE NOW HAVE TO CONCENTRATE ON TRAINING THE DOCTORS.

B. ACCESS TO THE EMS SYSTEM - 9-1-1-

C. TRIAGE - AT THE SCENE OF THE ACCIDENT AND ON ARRIVAL AT THE HOSPITAL - CLINICAL AND BASIC

IN RELATION TO YOUR JOB ON THE SCENE, WE NEED TO DEVELOP SYSTEMS OF CARE TO PROVIDE MORE APPROPRIATE AND VARIOUS TYPES OF CARE AT THE SCENE AND DURING

TRANSPORTATION. THERE IS ANEED FOR MORE RESEARCH INTO THE USE OF SUCH THINGS AS TELEMETRY, MAST SUITS, ESOPHAGEAL OBTURATOR, ETC.

D. COMMUNICATIONS - BOTH VOICE AND TELEMETRY

- AMBULANCE TO HOSPITAL
- AMBULANCE TO PHYSICIAN
- AMBULANCE TO AMBULANCE
- AMBULANCE TO HELICOPTER

THU FOR ANY EMS HOSPITAL THERE IS NO NEED FOR THE WORD - EMERGENCY.

E. RAPID TRANSPORTATION

LAND

SEA

AIR

ALL COORDINATED BY SYSCOM

F. REGIONALIZATION - THE GOLDEN HOUR

G. REGIONAL EMS COUNCILS

H. HOSPITAL CATEGORIZATION

I. SPECIALTY REFERRAL CENTERS

J. REHABILITATION

K. EVALUATION - OBJECTIVES

1. DEFINE EVALUATION PARAMETERS AND IDENTIFY DATA
2. DEVELOP PATIENT TRACER METHODOLOGY AND CONDUCT

FEDERALLY REQUIRED INDEPENDENT AUDIT

3. DEVELOP COMPUTER SOFTWARE TO PROCESS EMS DATA AND PERFORM NEEDED ANAYLSIS
4. DEVELOP A DATA COLLECTION SYSTEM FOR ALL AREAS OF CONCERN: RESOURCES, DELIVERY PATTERNS AND OUTCOME
5. BUILD A UNIFORM COMPREHENSIVE DATA BASE WHICH INCLUDES AN EMS RESOURCE INVENTORY, DATA ON THE DELIVERY OF EMERGENCY CARE, AND PATIENT OUTCOME DATA.
6. CONDUCT NECESSARY ANALYSIS TO ASSESS SYSTEM.

IN CONCLUDING MY PRESENTATION, I WOULD LIKE TO SHOW YOU HOW OUR SYSTEM WORKS IN MARYLAND WITH A SLIDE TAPE SHOW WE HAVE DEVELOPED. BUT FIRST I WOULD SIMPLY LIKE TO CONGRATULATE EACH AND EVERY ONE OF YOU FOR THE JOB YOU ARE DOING. I ONLY WISH MY PHYSICIAN COLLEAQUES HAD AS MUCH INTEREST AND ENTHUSIASM FOR IMPROVING THE DELIVERY OF EMERGENCY HEALTH CARE. THE PHYSICIAN AND HOSPITAL ELEMENT OF THE EMS SYSTEM HAVE A LONG WAY TO GO TO REACH THE STAGE THAT YOU PEOPLE HAVE REACHED. THE CITIZENS OF THIS COUNTRY OWE YOU A LARGE DEBT OF GRATITUDE FOR YOUR DETERMINATION TO PROVIDE THEM THE BEST CARE AVAILABLE.

THANK YOU. NOW THE SLIDE TAPE SHOW.