Report on Emergency Care Facilities

City Club of Portland (Portland, Or.)
REPORT ON

EMERGENCY CARE FACILITIES

To the Board of Governors,
The City Club of Portland:

I. INTRODUCTION

Your Committee was directed to review the recommendations made in the September, 1966, Report on Emergency Care to the Injured and Stricken in the Portland Area, review the extent to which those recommendations have been implemented and survey the need for further change.

II. SCOPE OF RESEARCH

The Committee, or individual members thereof, interviewed representatives of hospital administrations, governmental services, businesses supplying ambulance services, the local medical community and others, including:

Barney Buck, Owner, Buck Ambulance Company, then national president of the National Ambulance Association

Evelyn Connor, Owner, A.A. Ambulance Company

John Donnelly, M.D., Multnomah County Health Officer

Several representative recipients of State Welfare

Donald E. Clark, Multnomah County Commissioner

Loren Kramer, Director, Department of Administrative Services, Multnomah County

Stan Welborn, M.D., Chairman of Emergency Department, St. Vincent Hospital

A. Clair Siddall, Executive Director, Health Planning Council for the Metropolitan Portland area

Representatives of the Portland Police Department and Fire Bureau

Your Committee interviewed the Administrator, his representative, or both, and representatives of the medical staffs of the following hospitals in the Portland area, all of which maintain emergency facilities:

Bess Kaiser Foundation Hospital
City of Roses Memorial Hospital
Emanuel Hospital
Good Samaritan Hospital
Holladay Park Hospital
Multnomah County Hospital Emergency Unit
Physicians and Surgeons Hospital
Portland Adventist Hospital
Portland Osteopathic Hospital
Providence Hospital
St. Vincent Hospital
Woodland Park Hospital

Dwyer Memorial Hospital was also included in this study although it was not included in the 1966 Study and Report.

The Committee reviewed literature which had been published since the 1966 report concerning emergency care and ambulance facilities available in all parts of the country. It also reviewed programs which had been undertaken for the training of ambulance personnel both in the Portland area and elsewhere in the country.
AMBULANCE SERVICES RECOMMENDATIONS:

The maintenance of ambulance service that can respond to calls with dispatch and render the best possible first aid technique is of great importance to the entire community. To insure such service there must be more effective regulation, control and inspection of ambulances and ambulance personnel by the City Health Officer.

Therefore, your Committee recommends that:

1. An applicant for a permit to drive, or to attend in an ambulance should be required to meet minimum physical and mental standards, establish and maintain a good driving record and driving skill; and at least one employee in each vehicle should have first aid training consisting at least of the satisfactory completion of the Red Cross First Aid course.

2. The foregoing recommendation should be implemented by the adoption of an ordinance containing the provisions in the proposed ordinance attached to this report, or similar provisions.

3. There should be training procedures established by the City Health Bureau with the cooperation of the Multnomah County Medical Society to assure the maintenance of adequate standards of knowledge and efficiency among ambulance personnel.

4. Both the City of Portland and Multnomah County should review and re-evaluate governmental responsibility for the indigent patient both as to the amount paid by the responsible governmental body and also as to the mechanics of effecting such payment. This will minimize the inconvenience and delay to the ambulance company and more fairly distribute the cost of indigent calls among the entire population rather than requiring that so much of it be borne by paying users of the ambulance service.

5. The City and County should be commended for requiring and providing first aid training for their policemen and firemen and should be encouraged to increase the amount of training offered and the participation in training and review required of its personnel.

6. The City should place approved oxygen and resuscitation equipment at each fire station and train sufficient personnel in its use so that there will always be a competent team on duty. Such equipment and training should be reviewed by the City Health Officer in cooperation with appropriate representatives of the County Medical Society.

7. Appropriate governmental agencies should take immediate action to implement the foregoing recommendations.

8. Operators of ambulance services which are not subject to regulation by the City of Portland but which use Portland hospitals should be encouraged to implement the foregoing recommendations.

9. The practice of any hospital serving as a collection agency for any ambulance company should be eliminated.

HOSPITAL EMERGENCY CARE RECOMMENDATIONS:

1. The public should be informed of the problem of overuse of emergency facilities and requested to restrict its use of them to those problems that are genuine emergencies. The use of the emergency facilities purely for the convenience of the patient is to be condemned, since this may interfere with the necessary care of another patient in dire need of prompt medical treatment.

2. Medical and hospital insurance should be so written that emergency care given in a physician's office is covered in a manner similar to that provided in a hospital emergency unit.

3. Patients having acute or major emergencies should be taken only to those hospitals that are adequately equipped and staffed to handle such problems. Since nearly all such emergency patients are brought to the hospital by ambulance, the ambulance companies should be advised to use only those hospitals now or hereafter
having adequate emergency facilities and staff if the choice is within the ambulance company's discretion. Such hospitals should grant temporary consulting privileges to the staff physicians of those hospitals not equipped for major or acute emergencies. With such privileges available, all physicians should direct all patients with probable major or acute medical emergencies to hospitals equipped to handle such problems.

EXHIBIT B

EMERGENCY MEDICAL CARE COURSE
FOR AMBULANCE DRIVERS AND ATTENDANTS

PORTLAND COMMUNITY COLLEGE

Introduction—Movie: "Community Needs for Emergency Medical Care and Instigation of Same"

Priorities
1. CIRCULATION AND SHOCK
   Movie: "Shock"
2. RESUSCITATION
   Movie: "Hands of Action"
3. WOUNDS AND OPEN FRACTURES
4. VITAL SIGNS
5. FRACTURES AND DISLOCATIONS
   Movie: "Bleeding and Bandaging"
   Splinting and Handling
6. AIRWAY OBSTRUCTION
   Movie: "Respiratory Obstruction"
7. EMERGENCY CHILDBIRTH
   Movie: "Emergency Childbirth"
   Obstetrics
8. HEAD INJURIES
   UNCONSCIOUS PATIENT
9. MEDICAL EMERGENCIES
10. POISONING
11. SCALF, FACE AND NOSE
12. EYES
13. CHEST AND ABDOMINAL INJURIES
14. EXTRICATION
    Vehicles, Wells, etc.
    EQUIPMENT AND DEVICES
15. RADIATION
16. SUICIDE
17. TRAFFIC CONTROL
18. DEAD ON ARRIVAL
19. LEGAL ASPECTS OF EMERGENCY MEDICAL CARE
20. ECG — Telemetry
21. BURNS
22. WATER SAFETY
Members of the Committee visited these thirteen hospitals and examined the rooms and equipment used for emergency services. It also reviewed the policies of these hospitals concerning the staffing of the emergency room and responsibilities of the medical staff and compared those policies to the policies that existed at the time of the 1966 study. As in 1966 the Committee found the administration of the local hospitals completely cooperative and interested in providing whatever information was requested. Furthermore, the operators of the two privately owned ambulance services went out of their way once again to assist the Committee in its study and made valued contributions to the report.

III. BACKGROUND OF STUDY

The 1966 Report was somewhat critical of some aspects of the emergency care facilities and the ambulance service available in the Portland area. It also contained some recommendations for change in governmental agencies' relationship to the private ambulance companies. Those recommendations of the 1966 report are contained in exhibit A. After the issuance of the report, it was reported that the hospitals had undertaken changes both in staffing and in physical facilities in part, at least, as a result of the report's recommendations. In addition it was reported that comprehensive changes were being made by the ambulance companies in the training of their employees. Because the Board of Governors of the City Club felt that the adequacy of emergency care facilities, including ambulance services, was so important to the metropolitan area, and because the Board felt that changes voluntarily implemented by its prior report should be recognized, this restudy was authorized.

IV. AMBULANCE SERVICES

A. Background Information

At the time of the prior report there were three ambulance companies operating in the city of Portland. Since that time one of those companies has terminated leaving AA Ambulance and Buck Ambulance companies as the providers of ambulance services for the city of Portland. As at the time of the last report, these two companies operate under several business names—accounting for the larger number of ambulance service listings shown in the Portland telephone directory. Also, as was the situation at the time of the 1966 Report, there are volunteer ambulance crews and other ambulance companies which transport patients from outside the city of Portland to hospitals included in this study. These ambulance facilities were not included in this study.

After publication of the report in 1966, representatives of the City Club met and corresponded with city officials in an attempt to secure implementations of some of the recommendations of the report. Although the Committee was advised that a committee was appointed by the city the proposed legislative changes were not made and regulation, or lack of regulation, continued as it was before the report. Effective July 1, 1968, the county and city health departments were merged and the county now has exclusive administrative responsibility for the surviving departments. However, because of the absence of a comprehensive city ordinance as proposed in the prior report and the complete absence of an ordinance in the county, the inspections of, and the standards for, ambulance companies are still minimal. The operators of the ambulance companies feel, as they did in 1966, that more pervasive regulation and inspection are needed.

The Committee found that the private companies had accomplished substantial improvements voluntarily. The ambulances are well equipped, as they were in 1966, and the only criticism of the vehicles is that they continue to be designed more to conform to the accepted concept of appearance rather than for utility as emergency vehicles.

The relationship of the ambulance companies to their personnel has changed considerably in the last three years. Salaries have almost doubled—starting salaries are $125 per week on a 24 hour on-24 hour off basis. The high rate of turnover reported in 1966 is no longer the rule. The companies report that their personnel,
is now coming to them better trained and motivated as a result of ambulance and emergency care training received in the armed forces.

The training requirements of the city and county have not changed. The standards required by the companies, however, have been raised. The training now available for ambulance attendants has been significantly strengthened since 1966. An intensive training course at Portland Community College, sponsored by the Multnomah County Medical Society, has been offered annually for the last three years. Each year about thirty emergency medical technicians have complete this sixty hour course so that by this year nearly all the employees of the private companies in Portland have achieved this advanced level of training. (A description of last year's course is attached as exhibit B.) The course has been supported by the ambulance companies and attendance is rewarded by pay increases. Largely as a result of this course, the observation of the 1966 report that many ambulance attendants were not trained, is no longer correct.

The rates charged for ambulance service have also changed since the 1966 report. The rates are fixed by the companies themselves and are based on a minimum charge of $35 plus $1 per mile from pickup to delivery. In some cases additional charges are made for waiting time and special services.

The description of Emergency Service contained on pages 42 and 43 of the 1966 report is still essentially correct. The ambulance companies report today that the bases for the complaints cited in the 1966 report relative to payment by the city for indigent cases, have largely been eliminated. There was no complaint regarding the procedures followed by the county in 1966, and with the merger of the city and county health offices it appears that the better practices of the county have survived.

The Portland Council of Hospitals has recently instituted an independent radio communication network for the metropolitan area that allows immediate communication between the ambulance and hospital emergency departments. Thus, the attendant can report directly to a physician in the emergency department or at any telephone and receive instructions concerning patient care before and during transit. Also, the hospital emergency department can prepare for immediate treatment upon the arrival of an emergency patient. Soon telemetry of vital signs and electrocardiograms may be added to this facility increasing the scope of services to stricken patients.

Of the hospitals evaluated in this study, only Multnomah County Hospital has not yet secured the radio equipment necessary to participate in this emergency medical radio network. Since the Multnomah County Hospital has been designated by the Portland Council of Hospitals to be the primary base radio communication hospital for this system, it is imperative that Multnomah County's participation in this network be implemented as soon as possible.

V. GENERAL DISCUSSION

Citizens of Portland have been fortunate that the private ambulance companies have voluntarily undertaken to upgrade their standards way beyond the pitiful level set by the present inadequate ordinance. By and large the quality of ambulance service in the city is good in spite of the absence of an effective regulatory ordinance.

With the merger of the city and county health services such an ordinance should be applicable to the entire county. The Committee has met with Commissioner Don Clark and has submitted to Commissioner Clark a form of ordinance which is satisfactory to the companies and which the Committee feels is adequate to fill the existing void. It differs very little from the model ordinance proposed in the 1966 report. It is absolutely essential that ambulance attendants be adequately trained and that they receive refresher training on a regular basis. The adequate training as a condition to employment can be assured by ordinance. Requirements for adequate refresher training are more difficult to legislate, however, because the good refresher courses do not have the formalized certification, such as the tradi-
ditional Red Cross courses, which can be easily described by ordinance. However, the two ambulance companies have gone beyond the training requirements recommended by the 1966 report although at the time of that report the companies were operating below the standards proposed.

The Committee is of the opinion that the recent implementation of plans providing radio communication between the hospital and the ambulance is a most important area of improvement in emergency services. A facility which allows a well-trained first aid attendant to alert the hospital to the patient's condition and needs before the patient's arrival saves precious time. The lead time also gives the hospital an opportunity to make some of the arrangements concerning necessary physical facilities and staff before the patient's actual arrival.

The following statement was contained in the 1966 report:

"The Committee is of the opinion that the private ambulance companies in Portland provide a satisfactory service at a fair cost and that it is by no means either necessary or desirable that there be a municipally-owned, operated or subsidized ambulance service. This does not mean that the industry's standards should not be improved. However, the industry itself is in the forefront in attempting to raise these standards both by legislation and education. It appears to the Committee that the private ambulance companies can conform to the recommended improved standards and it also appears to the Committee that the private companies can provide a completely satisfactory service more economically than a municipally-operated service. It may well be, however, that these determinations should be re-evaluated in light of the performance of the industry after it has been required to raise its standards by appropriate legislation."

The Committee is of the opinion that time has proven the truth of the prophecies contained in the statement and affirms its belief that a privately-operated ambulance service in Portland can and does render a higher level of service.

VI. RECOMMENDATIONS

The first recommendation contained in the 1966 report related to effective regulations for ambulance services. Fortunately, because of the voluntary effort on the part of the ambulance companies the city's failure to implement such regulations has not harmed the quality of emergency services. Your Committee gives prime importance again to implementation of effective regulation.

Your Committee recommends that:

1. An applicant for a permit to drive or to attend in an ambulance should be required to meet minimum physical and mental standards, establish and maintain a good driving record and driving skill and both employees in each vehicle should have first-aid training consisting at least of the satisfactory completion of the Red Cross First Aid Course. All employees should have completed accreditation for the advanced first-aid course by the time they have been employed for one year.

2. The foregoing recommendations should be implemented by the adoption of a county-wide ordinance.

3. The ambulance companies should encourage their employees to participate in specialized first-aid training courses such as those offered by the Portland Community College and the American Academy of Orthopedic Surgeons.

4. Operation of ambulance services which are not subject to regulation by Multnomah County but which use Portland hospitals should be encouraged to implement the foregoing recommendations.

5. Multnomah County Hospital should begin participation in the Portland Council of Hospitals' emergency medical radio network as soon as possible.
VII. HOSPITAL EMERGENCY CARE

A. Background Information

The 1966 report established these criteria for acute and major emergency services:

1. Continuous supervision by a licensed physician within the emergency department.
2. Adequate physical facilities.
3. Established emergency procedures.

B. General Discussion

Since the issuance of that report, many of the hospitals have made significant improvements in providing for emergency care. Most noteworthy, a new specialty of medical practice is developing in which a physician limits his practice entirely to emergency medical care within an emergency department. Emanuel Hospital and Portland Adventist Hospital now have full-time coverage by three such physicians and St. Vincent and Portland Osteopathic have such a physician as director of the emergency department. St. Vincent, Providence, Woodland Park, Holladay Park, Kaiser and City of Roses have coverage by licensed physicians full-time within the emergency department using either contract physicians, resident physicians on off-duty hours, or members of their medical staffs in assigned rotation. Multnomah County has full-time coverage by residents in training and Good Samaritan uses interns on monthly rotation. Portland Osteopathic has one full-time physician for partial coverage and uses interns at all other times. Physicians and Surgeons and Dwyer Memorial have coverage by available resident physicians at night.

Within the last year, emergency department physicians have developed a nationwide specialty organization and have initiated procedures for recognition as an official medical specialty. It is likely that within a few years, residency training leading to board certification will be available at many medical centers throughout the country.

Improvements in physical plants have also occurred. Woodland Park, Physicians and Surgeons and, of course, the all new Dwyer Memorial, have each built entirely new emergency departments. St. Vincent is in the process of building an entirely new hospital and Kaiser, Holladay Park, Emanuel Hospital, Good Samaritan, Portland Adventist and Portland Osteopathic all have plans for new facilities, at various stages of development.

An adequate physical plant requires many interrelated items, all of which should vary in size and arrangement according to the volume of traffic in the department. A rough guide to this adequacy can be determined by computing the ratio of the number of patients seen per year to the space in the emergency department—i.e., the number of patients seen per year divided by the square footage of the emergency department. (See Appendix B.) Such a ratio indicates that Multnomah County, St. Vincent, Physicians and Surgeons, Portland Adventist and Dwyer Memorial all have adequate physical emergency facilities. Good Samaritan, Emanuel, Providence, Woodland Park and City of Roses are in an in-between class, where it is probable that there are times when the facilities are over-utilized. Kaiser, Holladay Park, and Portland Osteopathic appear to have inadequate physical facilities in relation to the patient load, even though Holladay Park, Portland Osteopathic and City of Roses have the three smallest patient loads. This suggests that it is difficult to develop an adequate physical plant with a low patient load.

Your Committee was told that Kaiser Hospital's unusual ratio is because this emergency patient load includes many non-emergency patients, such as clinic patients seen without appointments, thus giving a grossly distorted ratio. For instance, in 1969 its total of 44,280 emergency room visits recorded is nearly twice that of other emergency facilities, such as 20,495 at Emanuel, 19,737 at Woodland Park, and 17,605 at Providence. These last three facilities record only actual emergency cases, while Kaiser does not separate its emergency cases from non-
emergency cases in its total count. Therefore, the space ratio is distorted accordingly.

Two additional criteria concerning the provision of major emergency medical care now appear significant to the Committee: First, the availability of specialty medical coverage on the hospital premises 24 hours a day, and second, the availability of the critical ancillary services of Intensive Care Unit (ICU), Cardiac Care Unit (CCU), Inhalation Therapy and Renal Dialysis.

Multnomah County, St. Vincent, Good Samaritan, Kaiser, Emanuel, and Providence all have residency programs providing full-time specialty coverage on the hospital premises for at least the specialties of medicine and surgery. In addition, Multnomah County has coverage for all specialties. Good Samaritan covers neurosurgery, Kaiser covers obstetrics/gynecology, and Emanuel covers pediatrics, orthopedics, obstetrics/gynecology, radiology and urology.

The three ancillary facilities of ICU-CCU, inhalation therapy and renal dialysis are all available at Multnomah County, Good Samaritan, Providence and Emanuel. In addition, both ICU-CCU and inhalation therapy are available at St. Vincent, Physicians and Surgeons, Portland Adventist, Portland Osteopathic, City of Roses, Woodland Park and Dwyer Memorial. ICU-CCU alone is available at Holladay Park, and inhalation therapy is available at Kaiser which also has CCU but not ICU.

VIII. CONCLUSIONS

The problem of over-use of emergency departments for non-emergency problems persists but is to a large extent controlled in those hospitals staffed with full-time emergency medicine specialists. These physicians soon become acquainted with individuals who tend to overutilize the emergency department in an effort to avoid physicians' fees, and redirect such patients to a more appropriate facility. Since these physicians charge for their professional service, the possible advantage of obtaining medical care without paying physicians' fees is also eliminated.

The provision for definitive care, after emergency measures have been completed, becomes the attending physician's responsibility, and frequently the initial phase of this care can be carried out by the resident physician after appropriate consultation with the treating physician. At those hospitals without resident physician coverage, the initiation of definitive care requires the presence of the treating physician and at times this care may be delayed significantly until this physician's arrival at the hospital. Thus, the initiation of definitive care, as well as continuing medical supervision, is facilitated where qualified resident physicians are on the hospital premises full-time.

For emergency departments capable of handling major medical emergencies, technicians for the ancillary services of x-ray, laboratory, electrocardiogram and inhalation therapy should be immediately available at all times. The facilities for these services should be within, or immediately adjacent to, the emergency department, so that supervision by the emergency department staff will not be interrupted during the provision of these services. An example of such a problem is the emergency department of Multnomah County Hospital where, despite an otherwise excellent physical plant, the x-ray department is distant from the emergency department both vertically by an elevator and horizontally by a fairly long corridor. Portland x-ray equipment brought to the patient in the emergency department has so far not satisfactorily answered this problem since the quality of its x-ray studies have proved inferior for those critical patients for whom the portable equipment may be used. All future hospital planning should place the x-ray equipment adjacent to the emergency department and provide space for the other ancillary services within the emergency department.

On the basis of the information contained in this report, it is obvious that there is a significant difference in the capabilities of the hospitals in Portland to handle major or acute emergency problems.
IX. RECOMMENDATIONS

Your Committee therefore recommends:

1. Portland hospitals should be encouraged to continue the significant progress they have already made in upgrading the emergency care available in Portland.

2. Some responsible and authoritative agency should designate those hospitals which have facilities adequate to care for major and acute emergency problems and such designation should be brought to the attention of the public and particularly the ambulance industry.

3. When specialized training leading to board certification in emergency medicine becomes available, such board certification should become a requirement for all physicians responsible for major and acute emergency departments.

Respectfully submitted,

Jerry J. Bass, M.D.
Allen M. Boyden, M.D.
Paul Campbell, M.D.
Spencer M. Ehrman
Allan C. Finke
Roger W. Hallin, M.D.
Walter Pendergrass and
Clifford N. Carlsen, Jr., Chairman

Approved by the Research Board June 25, 1970 and submitted to the Board of Governors.

Received by the Board of Governors July 6, 1970 and ordered printed and submitted to the membership for discussion and action.
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Number of Emergency Patients per square foot of Emergency Department Space at each hospital for the year 1969.
APPENDIX C

HOSPITAL RATINGS

Rating of the critical factors for each hospital. The lowest number is the most desirable in each category. The blanks indicate that the particular factor is lacking for that hospital.

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<th>Ratings</th>
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