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WASTED PEOPLE
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THE HEALTH PROFESSIONAL VERSUS THE PATIENT?

A Decision of Priorities for the University of Maryland

by Dr. William Spicer

At the present time, it is easy to respond to an invitation to write about health care delivery and education for health care delivery. The entire health field is in a state of ferment. I use the word "ferment" instead of "change" because there is much discussion but little action.

The University of Maryland professional campus is situated in the heart of the inner city with five undergraduate health professional schools and a law school and a near-by school of public health. It provides various types of health care for a population base of a quarter-million people and is, therefore, in the right place, at the right time, and has the right ingredients to accept leadership in the development of programs of health care delivery and education that would introduce measures to counterbalance the often quoted major deficits of manpower, non-system, and money.

There are many indications of ferment on this campus. There is, in fact, so much discussion that it is easy to believe that exciting and innovating changes are about to happen. Although it would undoubtedly serve my own best interest to encourage this sense of imminent change in the minds of the students, I must in all honesty share with you my opinion that the transition from ferment and talk of general panaceas to directed activity has not yet been determined.

We have all recognized the tremendous potential of this campus. We have all seen the needs and opportunities. We have become more and more sophisticated in the manpower, reorganization of health services, and money discussion-games. We have reached the point on this campus where we need directed and staged planning and implementation and some "magical" measurement or reference tool which will allow us to determine whether meaningful change really occurs or whether we will merely make readjustments which give the appearance of change, but, in reality, protect the status quo.

The medical institutions on this campus readily agree that the primary purpose of health professional schools is the education of their students for a life time of provision of the best health care for the whole patient. If, in the light of recognized problems, they accept an operational efinition that best health care for the whole patient must be given by a team, they must also accept the premise that training for health care must be within a team. Having established this basis, we would be in a reasonable position to identify priorities and evaluate our plans and actions. Every citizen knows why we need "teams" and ancillary health personnel. We certainly perceive as well why we need "whole patient" care? At present, we are all treating patients as groups of fragmented bits and pieces, both in health care delivery and in health care education. Over

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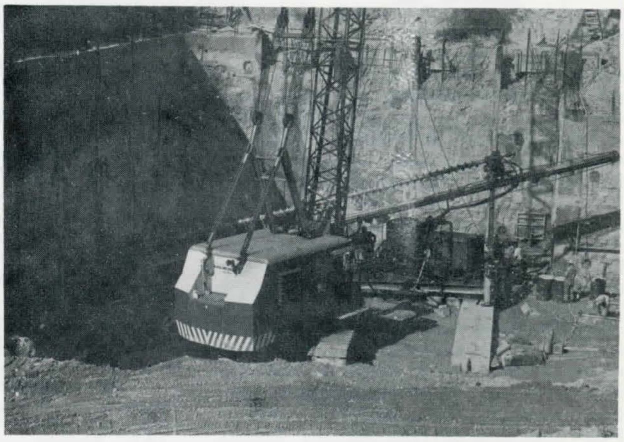

In the beginning the end was not easily seen,
Here we now stand - somewhere in between

MERITS OF A CAREER IN MEDICAL RESEARCH

by Elwood H. LaBrosse, M.D.

Medical research has both negative and positive aspects. In general, efforts to conduct research on medical problems are often characterized by the difficulties of maintaining strict control when carrying out studies on patients, and a possible lack of validity when attempting to extropolate results which are obtained from research on animals to the case of humans.

Clinical research, that is research on human beings who are suffering from various illnesses, usually is accompanied by considerable limitations to the investigator; urine and feces are usually quite readily available, but the amount of blood and cerebral spinal fluid which can be obtained are considerably limited, and living tissue is only rarely available, and available only in very small quantities when it can be obtained. These limitations on the availability of material which can be obtained from patients, a prime object of clinical research, are in striking contrast to the availability of tissue and other material which can be obtained from experimental animals.

On the other hand, there are a number of instances in which attempts to carry over the results, which have been obtained on animals, to disease processes in human being, have been totally unsuccessful or have lead to erroneous conclusions. For example, ascorbic acid (Vitamin C) is synthesized in the tissues of the rat, but this essential vitamin is not synthesized by human beings and its deficiency in the diet leads to Scurvy. In addition, studies of the metabolism of norepinephrine in rats, dogs and human beings have clearly revealed that there are significant differences between these three species and therefore neither of the two readily available laboratory animals can be used as a suitable model for the metabolism of this important catecholamine in humans.

Therefore, from these brief remarks, it is readily apparent that medical research, especially research directly related to patients has several significant difficulties associated with it, and

(Continued on page 2)

MOXLEY TELLS OF NEW DEVELOPMENTS

"The proposed date of entry into the $19 million North Hospital will be the middle of 1972 only a few month's delay from the original date. There will be an increase in respectibility for the users of the Emergency Room and OPD clinics." Dr. Moxley emphasized that "it's time more emphasis be placed on the daily community-oriented medical services."

"The old OPD building on the corner of Lombard and Greene Streets will be demolished as soon as the last patient and piece of equipment is removed. The master plan for the UniversityBaltimore compus calls for an addition to the Student Union Building. This new wing may be delayed until more information is available concerning the type of housing that will be erected adjacent to the University in he new Inner Harbor area. If suitable housing can be obtained in that area, the plans for the proposed twin apartment towers to be located behind the Student Union building may be disgarded."

"The $18 million addition to Howard Hall is

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Pro vs. Patient *(Continued from page 1)*

the years we have cut up the patient in innumerable ways and through a variety of planes. A look at some of these cuts shows us some meaningful changes which must occur to put him and our health care and education system back together.

1. *Money* - the patient is cut into the service and private case. The temptation here is to tread softly and treat this dissection as a purely moral issue. It *is* a moral issue, but it is also a hard issue of dollars and cents, the dollars and cents that build buildings, pay for student education, turn on the lights and heat, and pay faculty salaries. Having determined over the years to separate the patients into these two classes the present allotment of our facilities has resulted, which, in turn, controls, in large part our budgetary structure. To reallot more than two beds from a private or semi-private designation to a service designation would upset the present budgetary stability. This fiscal dilemma has a major impact of the role we can play in the immediate community and in the state as a whole. The question is, "How can we continue as Maryland's Health Professional Education and Specialty Referral Center and at the same time make the major reapportionment of our facility utilization that is a fundamental necessity in putting our institutions and the patient together?".

2. *Service versus Education* - this cut is very easy to identify. It happens when we focus our attention on the education of each health professional student on a stand-alone basis and forget the primary purpose of his education. It ignores the fact that each of our schools, departments and divisions, our educational curricula and educational programs should be focused fundamentally on the best health care delivery system for the whole patient even though the patient's immediate need may demand intensive specific care or care by a sub-specialist focused on one organ system. To make a meaningful change requires that we deliver care to the patient and conduct our practical patient centered education in connection with other departments and schools.

3. *Disciplinary Cuts* - these cuts in the the patient can be made any way you wish: between the health professional schools; between the departments in the medical school; between the nursing and the pharmacy services; between the personnel and finance and business services; between the in-patient and the out-patient services; or what have you. Whatever scheme is chosen, the end result for the patient is about the same.

I use a very simple "magical" measurement to answer for myself the original question of whether any meaningful change is going to be seen in the University of Maryland as a result of the present ferment.

When I read or listen to any proposed change I ask myself: "Is this primarily for the benefit of the patient? Will the proposed action treat him as a whole person?"

Several subsequent questions must follow: "Are the health professionals willing to give up something of importance in order to achieve comprehensive care, efficient coordination of manpower, and proved care of the whole patient, e.g., power, control, money, space, independence, etc.?" We have cut the patient, divided him by services, by divisions, by departments, and by schools.To put him back together, we have to unify these services, divisions, departments, and schools.

A meaningful attempt to put the patient back together is, therefore, going to hurt -- *at first*. But, in the long run, it will benefit not only the patient, but the health professionals and the health professional institutions. Stated again, I believe our first priority must be concern for the patient as a whole individual and for his needs. If we can accept this rational top priority for a whole campus of health professional schools, the development and coordination of health care delivery and educational systems for health care delivery, the necessary decisions, sacrifices, and actions, will follow easily and naturally.

Moxley *(Continued from page 1)*

now in its late architectural planning stages and may be completed by late 1975. There will be two large 200 plus seat lecture halls in the new wing along with an enlarged Student Affairs office, canteen and recreational area. This building will connect with the hospital via enclosed walkways."

"Also to be built are two additional high-rise garages. These structures will be placed on the two southern corners of the downtown campus. Although this will not alleviate the parking and transportation difficulty, it will relieve much of the congestion that we are now experiencing."

"A committee is presently being formed to analyse and define the roles and functions of the House Staff. This will be increasingly more meaningful as the expanded facilities begin to be actively used."

"The School of Pharmacy is now undertaking a clinical tract placed in the fifth year of its training program. This will result in a closer team effort between the physician and pharmacist."

Research *(Continued from page 1)*

suitable species of experimental animals are not always available.

However, research studies may be conducted on human beings and may provide considerable useful information without being either unduly complicated or harmful to the patient. Over many years, studies carried out on small amounts of blood and urine have readily provided information in regard to the state of the patient's kidney function, function of the bone marrow, presence of infection or inflammatory processes and the presence of a wide number of genetic dificiencies which lead to metabolic abnormalities.

The merits of a career in research very rarely include the opportunity to obtain significant monetary rewards and, by contract, require long hours of persistent effort in the laboratory. What such a career can provide is the thrill of discovery, the opportunity to obtain information, perhaps for the first time that it has been obtained anywhere in the world, and the immense feeling of satisfaction which such discovery can give, especially when it has been obtained after weeks, months, and even years of persistent effort.

For success in research, it is essential that the investigator obtain some measure of daily satisfaction in careful planning and carrying out, or supervising, the execution of the research plan. He needs to feel the importance of careful analysis of data and to have a feeling of confidence that sustained effort will eventually be rewarded by obtaining meaningful and useful results.

One of the greatest satisfactions which the medical researcher can obtain is the feeling which comes to him at the time when he has made a solid, reproducible contribution to this long line of research endeavor.

LETTERS

To the Editor:

One of the serious problems in college and university life today is the lack of attention to the personality needs of the students. Suicide is the second most commone cause of death on the campus, topped only by automobile accidents; but those who have studied the subject believe that half of the latter are "concealed suicides"; thus suicide actually leads the list. Dr. Howard A. Rusk of the New York University Medical Center collected estimates that 90,000 students each year will threaten suicide, one in ten will make the attempt, and that there will be 1,000 actual deaths resulting. Beyond this, he calculates that among six million students, "some 600,000 have emotional problems for which they need professional assistance". The National Institute of Mental Health finds that "the factor of human isolaion and withdrawal" appears to be critical; and the colleges recognize the serious problem created by these "loners" and are trying to provide help but admit (in hundreds of letters to us from deans) that they do not have adequate solutions.

This waste of some of the nation's finest young people is intolerable. Since for every actual death, nearly a hundred have felt so desperate as to threaten it, much light could be thrown on the subject by learning what *factors enabled the fortunate ones to work out of their difficulties and keep going.*

With the help of a friend who is vitally interested in this subject, the American Institute of Family Relations is carrying out a nation-wide study of what is being done and what could and should be done. We need to hear from as many students and former students as possible who have faced such a crisis. What pulled them out of it? Was it aid furnished by the college or university? or other community organization? or by a friend? or religion? or reading? Just *how* did they save themselves?

We will not publish the names of any individuals or schools; the information will be handled statistically and anonymously. If you can call the attention of your readers to this study and *ask* for volunteers who will *write their experiences* to me ("personal") at the above address, it may contribute toward saving valuable lives.

We shall certainly be most grateful for any help you can give.

Cordially yours,

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The
ASCLEPIAN

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Economics of Clinical Pharmacology

The following are replacement charges for stock drugs at University Hospital.

DRUG	chge/unit
Adrenalin, 1 cc.	.75
Aminophylline, 250 mg.	.75
Ampicillin, 500 mg.	3.00
Ampicillin, 1 Gm.	4.00
Aqua-Mephyton, 10 mg.	1.00
Aramine 1%, 10 cc.	3.60
Ascorbic Acid, 500 mg.	.75
Benadryl, 50 mg.	1.20
B.S.P., 7.5 cc.	2.00
Calcium Chloride, 10 cc.	.75
Calcium Gluconate, 10 cc.	.75
Cedilanid-D, 0.4 mg/2 cc.	.75
Cepacol	.75
Chloromycetin IV, 1 Gm.	4.40
Clinitest & Acetest Set	6.00
Compazine, 10 mg/2cc.	1.50
Dextrose, 50%, 50 cc.	1.50
Dextrose Oral (Koladex)	1.10
Digoxin, 0.5 mg/2 cc.	.75
Dilantin, 100 mg.	3.00
Ducolax Set	1.30
Dulcolax Suppos (1)	.75
Edecrin, 50 mg.	5.00
Ephedrine Sulfate, 50 mg.	.75
Ergotrate, 0.2 mg.	.75
Garamycin, 2 cc.	8.00
Heparin, 1000 u/cc, 10 cc.	1.50
Heparin, 1000 u/cc, 1 cc.	1.50
Histamine, 2.75 mg.	.75
Inderal, 1 mg.	1.00
Isuprel, 0.2 mg./cc	1.00
Isuprel, 1 mg./5 cc.	2.70
Kantrex, 1 Gm.	8.20
Keflin, 1 Gm.	6.50
Keflin, 4 Gm.	19.80
Lasix, 20 mg.	1.90
Levophed, 4 cc.	1.30
Lubasporin Oint	.75
Mannitol, 25%, 50 cc.	1.80
Methergine, 0.2 mg.	.75

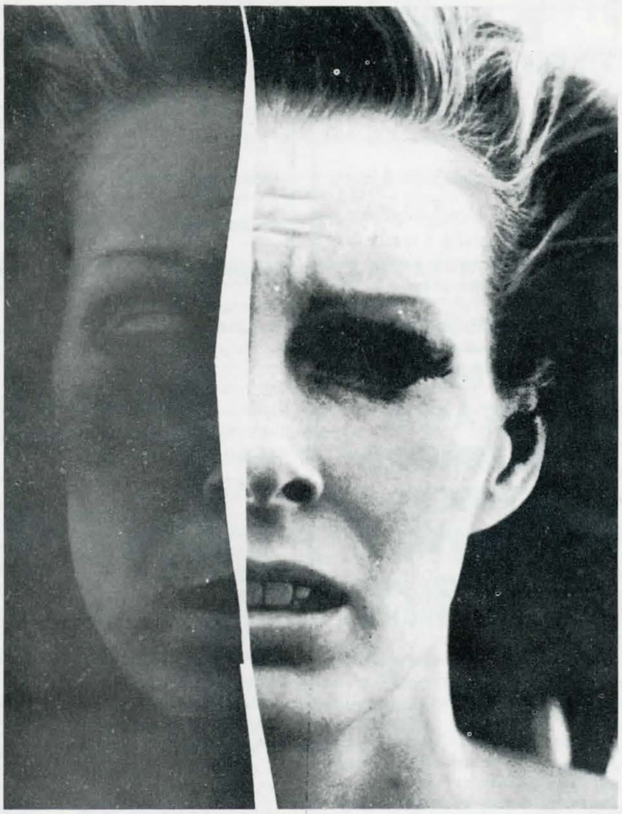
DRUG	chge/unit
Neomycin Sulfate, 0.5 Gm.	4.80
Neopsorin Top. Powder	2.25
Neo-Synephrine, 10 mg.	.75
Paraldehyde, 2 cc.	.75
Penicillin, 20,000,000	6.40
Phenergan, 25 mg.	1.00
PSP, 1 cc.	.75
Phisohex, 5 oz.	1.80
Pitocin, 5 u/0.5 cc.	.75
Pitressin, 20 u/cc.	.75
K CL, 20 mEq	.50
K CL, 40 mEq	.75
Pro-Banthine, 30 mg.	1.80
Pronestyl, 10 cc.	1.65
Protamine Sulfate, 50 mg.	1.10
Quinidine, 10 cc.	2.40
Scopolamine, 0.43 mg.	.75
Sodium Bicarb., 40 cc.	1.25
Sodium Bicarb., 50 cc.	1.50
Solu-B-Forte, 10 cc.	3.30
Solu-Cortef, 100 mg.	6.50
Solu-Cortef, 250 mg.	10.00
Solu-Cortef, 500 mg.	16.00
Solu-Medrol, 40 mg.	5.25
Solu-Medrol, 125 mg.	13.00
Staphcillin, 1 Gm.	3.85
Staphcillin, 4 Gm.	11.50
Streptomycin, 0.5 Gm.	.75
Streptomycin, 1 Gm.	.75
Sulfathiazole Steraps	.75
Talwin, 30 mg.	.75
Terramycin IM, 100 mg.	.75
Tetracycline IM, 250 mg.	2.00
Thiamine HCL, 100 mg.	.75
Thorazine, 50 mg./2 cc.	1.25
Three Antibiotics Oint	1.00
Thrombin Top, 1000 u.	1.85
Thymol Iodide, 30 Gm.	2.00
Tigan, 100 mg./2 cc.	1.40
Travad Enema	1.00
Urecholine, 5 mg.	1.35
Valium, 10 mg./2 cc.	1.45
Vistaril, 100 mg./2 cc.	1.60
Vicert-C, 500	1.00

Although it has only recently been brought to light to the public, the cost of drugs in hospitals, specifically University Hospital, has long been prohibitive.

Our training as students and house officers emphasizes drug actions, side effects, indications, and contra-indications with little mention of the relative cost of our prescriptions. We frequently read of new preparations for controlling renal function, gram-negative sepsis, etc., but most of us remain totally unaware of the prodigious bills incurred during the treatment of such ills.

We of the *Asclepian* submit that total health care in 1971 entails concern for the *economic* well-being of the patient and socety as well as their bodily well-being.

J.H.



symptoms of mixed anxiety-depression are rarely clear-cut... but they are often a clear indication for

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Before prescribing or administering, see Sandoz literature for full product information. The following is a brief precautionary statement.

Contraindications: Severe central nervous system depression, comatose states from any cause, hypertensive or hypotensive heart disease of extreme degree.

Warnings: Administer cautiously to patients who have previously exhibited a hypersensitivity reaction (e.g., blood dyscrasias, jaundice) to phenothiazines. Phenothiazines are capable of potentiating central nervous system depressants (e.g., anesthetics, opiates, alcohol, etc.) as well as atropine and phosphorus insecticides. During pregnancy, administer only when necessary.

Precautions: There have been infrequent reports of leukopenia and/or agranulocytosis and convulsive seizures. In epileptic patients, anticonvulsant medication should also be maintained. Pigmentary retinopathy may be avoided by remaining within the recommended limits of dosage. Administer cautiously to patients participating in activities requiring complete mental alertness (e.g., driving). Orthostatic hypotension is more common in females than in males. Do not use epinephrine in treating drug-induced hypotension. Daily doses in excess of 300 mg. should be used only in severe neuropsychiatric conditions.

Adverse Reactions: *Central Nervous System*—Drowsiness, especially with large doses, early in treatment; infrequently, pseudoparkinsonism and other extrapyramidal symptoms; nocturnal confusion, hyperactivity, lethargy, psychotic reactions, restlessness, and headache. *Autonomic Nervous System*—Dryness of mouth, blurred vision, constipation, nausea, vomiting, diarrhea, nasal stuffiness, and pallor. *Endocrine System*—Galactorrhea, breast engorgement, amenorrhea, inhibition of ejaculation, and peripheral edema. *Skin*—Dermatitis and skin eruptions of the urticarial type, photosensitivity. *Cardiovascular System*—ECG changes (see *Cardiovascular Effects* below). *Other*—A single case described as parotid swelling.

The following reactions have occurred with phenothiazines and should be considered: *Autonomic Reactions*—Miosis, obstipation, anorexia, paralytic ileus. *Cutaneous Reactions*—Erythema, exfoliative dermatitis, contact dermatitis. *Blood Dyscrasias*—Agranulocytosis, leukopenia, eosinophilia, thrombocytopenia, anemia, aplastic anemia, pancytopenia. *Allergic Reactions*—Fever, laryngeal edema, angioneurotic edema, asthma. *Hepatotoxicity*—Jaundice, biliary stasis. *Cardiovascular Effects*—Changes in terminal portion of electrocardiogram, including prolongation of Q-T interval, lowering and inversion of T-wave, and appearance of a wave tentatively identified as a bifid T or a U wave have been observed with phenothiazines, including Mellaril (thioridazine); these appear to be reversible and due to altered repolarization, not myocardial damage. While there is no evidence of a causal relationship between these changes and significant disturbance of cardiac rhythm, several sudden and unexpected deaths apparently due to cardiac arrest have occurred in patients showing characteristic electrocardiographic changes while taking the drug. While proposed, periodic electrocardiograms are not regarded as predictive. Hypotension, rarely resulting in cardiac arrest. *Extrapyramidal Symptoms*—Akathisia, agitation, motor restlessness, dystonic reactions, trismus, torticollis, opisthotonus, oculogyric crises, tremor, muscular rigidity, and akinesia, occasionally persisting for several months or years especially in elderly patients with brain damage. *Endocrine Disturbances*—Menstrual irregularities, altered libido, gynecomastia, weight gain, false positive pregnancy tests. *Urinary Disturbances*—Retention, incontinence. *Others*—Hyperpyrexia; behavioral effects suggestive of a paradoxical reaction, including excitement, bizarre dreams, aggravation of psychoses, and toxic confusional states; following long-term treatment, a peculiar skin-eye syndrome marked by progressive pigmentation of skin or conjunctiva and/or accompanied by discoloration of exposed sclera and cornea; stellate or irregular opacities of anterior lens and cornea.

SANDOZ PHARMACEUTICALS, HANOVER, N.J. 69-184R SANDOZ