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As the nation's leaders participate in vigorous debate in search of a national health care plan, this paper proposes a model of health care dynamics that is the underpinning of the entire process. Based on the author's twenty years of clinical medical practice and experience in executive leadership positions, he articulates a synergistic relationship between the doctor and the patient. The doctor is subject to pressures of practice that include training experience, desire for income, malpractice fears, peer pressure and command influence. The patient brings pressures to the relationship of a personal nature to include fear of death and dying, loss of control and consumer oriented demands of low prices, convenience and timeliness. All of these factors involve resource expenditure. In light of the additive effects of this dynamic relationship, new insights are achieved by clearly defining the goals of accessible, high quality, and affordable health care. Finally, the model is used to examine several modern concepts in health care delivery, "cost sharing" and "capitation" budgeting. The conclusion is that the model, based on the doctor-patient relationship, will help senior leaders better understand the dynamics of the health care arena.

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THE DOCTOR-PATIENT RELATIONSHIP: A MODEL FOR SENIOR LEADERS

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ABSTRACT

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As the nation's leaders participate in vigorous debate in search of a national health care plan, this paper proposes a model of health care dynamics that is the underpinning of the entire process. Based on the author's twenty years of clinical medical practice and experience in executive leadership positions, he articulates a synergistic relationship between the doctor and the patient. The doctor is subject to pressures of practice that include training experience, desire for income, malpractice fears, peer pressure and command influence. The patient brings pressures to the relationship of a personal nature to include fear of death and dying, loss of control and consumer oriented demands of low prices, convenience and timeliness. All of these factors involve resource expenditure. In light of the additive effects of this dynamic relationship, new insights are achieved by clearly defining the goals of accessible, high quality, and affordable health care. Finally, the model is used to examine several modern concepts in health care delivery, "cost sharing" and "capitation" budgeting. The conclusion is that the model, based on the doctor-patient relationship, will help senior leaders better understand the dynamics of the health care arena.

INTRODUCTION

Within the last thirty years this nation has experienced a revolution in the practice of medicine that equals any social or economic upheaval of the preceding two centuries. The merging of technologies due to the massive growth of the medical-industrial complex has brought our nation's health care system to a crossroad. Medicine has evolved into big business for physicians, hospitals, insurance corporations, pharmaceutical giants, the medical equipment industry and the government.[1] The nation's population grows older and demands more in services. Patients expect a basic "right" to medical care. The medical-industrial complex caters to this expectation to the extent that expendable resources will allow. But as available resources grow scarce for medical care many in our nation look to the federal government for solutions and assistance in maintaining and improving basic health care services.

Senior administrative leaders, particularly those shaping medical policy must have a vision. One vision or goal for medical care proposed in this paper is accessible, high quality care at affordable costs. Caring for the patient is its central focus. Most federal agencies are involved in the process of formulating policy to achieve this goal. The Department of Defense, as a good example, has taken the lead with multiple initiatives over the last few years to further enhance health care delivery for their beneficiaries.[2] Yet all policy makers must develop and execute their plans in an environment of shifting priorities and competing demands.

This paper proposes a model that describes the dynamic and synergistic relationship of the "Doctor-Patient Relationship" in new terms and with a new perspective. This model is useful for analyzing the complexities of health care delivery. The model serves as a focus or yardstick for senior policy makers and leaders who are shaping the vision for reaching

the goal of accessible, high quality, affordable health care. In working towards this goal, to ignore or discount the contributions from the dynamics of the model is a fatal error. Senior leaders must keep in focus the implications of the doctor-patient relationship as it relates to every aspect of health care delivery.

The model evolves from a description of the setting of the doctor and the patient and their interaction. Built from this interface, it can be expanded to encompass general principles of medicine, to include help in defining quality, access and cost control. It is a microanalysis of health care delivery with direct implications on the policy decisions for "macro" medical economics and operations.

The concept of the model was developed from experience gained through twenty years of clinical practice as a physician. Its formulation was brought into sharp focus when, as a senior executive at a large Army hospital, I was required to tightly manage limited resources to serve a large patient population. The day to day dynamics and complex pressures associated with this management process forced me to search for an overarching mechanism that would help me understand and explain what I observed. The result was the development of the "Doctor-Patient Relationship" model. Further academic research in the medical literature supports the concepts used to develop this model.

I have used this model as a teaching tool for the medical staff of that same hospital with some success and will describe it in the following section. The intent is to provide an analytical framework for senior leaders. Once the model is understood and applied in the process of policy formulation, the result should be a more realistic and viable achievement of the goal of accessible, high quality, affordable health care.

THE DOCTOR-PATIENT RELATIONSHIP

Experts continue to differ on strategies aimed at organizing the medical industry and how to improve the delivery of health care. No strategy can hope to succeed without policy makers fully exploring and understanding its fundamental components.[3] For medical policy this fundamental component is the individual "Doctor-Patient Relationship." This relationship has traditionally been viewed as sacrosanct, privileged, private and dynamic by those who would want to quantify, preserve and protect it.[4] In its simplest form the doctor-patient relationship is an interaction between two individuals to achieve a goal.[5] But the relationship is more complex and is rarely examined in detail or allowed full exposure. However, it is precisely this dynamic and synergistic process that is at the heart of both good medicine and the appropriate utilization of resources for providing good medicine.[6] It is the engine that makes health care go.

Additionally, most concepts of resource allocation dealing with the delivery of health care, to include fee-for-service[7], managed competition[8], capitated services[9] and federal health care programs[10] recognize the inherent demands imposed by the relationship, but they fail to address the relationship directly.[11] For example, while fee-for-service insurance plans lower reimbursement schedules to physicians and capitated systems limit total expenditures by passing the financial risk on to doctors, neither system openly reflects what it is that drives the demand for delivery of the care.[12] Without a focus on this relationship, opportunities are lost for senior leaders to develop plans that would achieve the desired goal of accessible affordable quality

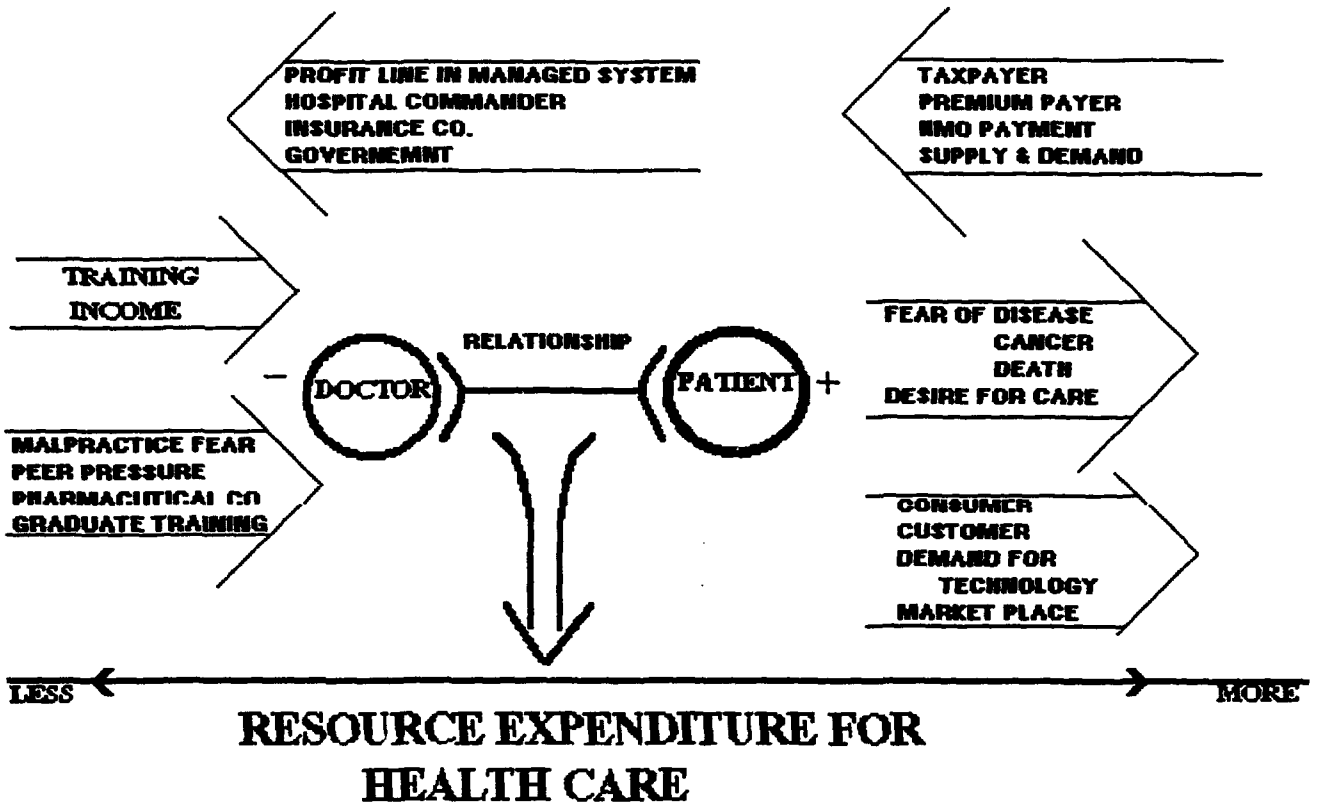
PROFIT LINE IN MANAGED SYSTEM
HOSPITAL COMMANDER
INSURANCE CO.
GOVERNEMNT
TAXPAYER
PREMIUM PAYER
HMO PAYMENT
SUPPLY & DEMAND
TRAINING
INCOME
RELATIONSHIP
DOCTOR
PATIENT
FEAR OF DISEASE
CANCER
DEATH
DESIRE FOR CARE
MALPRACTICE FEAR
PEER PRESSURE
PHARMACEUTICAL CO
GRADUATE TRAINING
CONSUMER
CUSTOMER
DEMAND FOR
TECHNOLOGY
MARKET PLACE
LESS
MORE
RESOURCE EXPENDITURE FOR
HEALTH CARE

FIG. 1

care. What this paper seeks is an examination of what Igelhart calls "bedside authority" in medical care.[13]

The doctor-patient relationship is a dynamic and personal one. As a patient seeks advice, diagnosis and cure from a physician this process is subject to a myriad of "pressures." The source for these pressures are both the patient and the physician. The summation of the pressures can be additive or subtractive and result in resource expenditures or conservation. The process is a spectrum of resource utilization to which both participants contribute.[14] An analogy can be drawn to two charged objects on a line that are linked by the power of their charges. Depending on the nature of the charges and their relative intensities, the linked pair would tend to move along a horizontal scale representative of resource use (see figure 1). Often the contributions of both participants are additive and result in either minimal or excessive resource use. In other instances the individual pressures are in opposite directions and the net result is only slightly less or slightly more use of resources. The frame of reference for the relative resource use is other patients in the system, other doctors or national averages. Regardless of the frame of reference, it is the process that consists of "pressures" or charges and their consequent influences that is important. A closer examination of this process requires us to look at doctors and patients separately.

The influences (pressures) that a physician brings to the relationship vary with the doctor and the specialty, but they remain at the heart of what

the physician thinks and does in caring for the patient.[15] As Eddy states:

> Uncertainty creeps into medical practice through every pore. Whether a physician is defining a disease, making a diagnosis, selecting a procedure, observing outcomes, assessing probabilities, assigning preferences, or putting it all together, he is walking on very slippery terrain. It is difficult for nonphysicians, and for many physicians, to appreciate how complex these tasks are, how poorly we understand them, and how easy it is for honest people to come to different conclusions.[16]

We can divide the influences or pressures into two general categories: those internal influences that drive a physician to arrive at clinical decisions about patient care and those external influences that impact on thinking and decision making. Internal influences are self driven while external forces cause a reaction by the physician. Each set of pressures impacts on the decisions related to resource expenditure in health care.

Internal forces include training experience and desire for income. The process of training physicians is one of learning how to care for patients in an environment of varying resource (money, people, equipment) constraints associated with ordering tests, performing procedures and prescribing drugs. The decisions physicians make mirror their training experience.[17] If physicians train in a resource poor environment, they are attuned to caring for patients with less resources and they learn methods of diagnosis and treatment that achieve an acceptable level of quality within this limitation. The physician will then bring this experience or habit to future doctor-patient relationships.

Other learned traits and experiences can also serve to shape future doctor-patient relationships. For example a physician's innate drive for excellence may lead them to order excessive tests in order to ensure accuracy

of diagnosis or to avoid the psychologically unpleasant uncertainty of not knowing a patient's exact diagnosis .[18]

> The final decision about how to manage a patient requires synthesizing all the information about a disease, the patient, signs and symptoms, the effectiveness of dozens of tests and treatments, outcomes, and values. All of this must be done without knowing precisely what the patient has, with uncertainty about signs and symptoms, with imperfect knowledge of the sensitivity and specificity of tests, with no training in manipulating probabilities, with incomplete and biased information about outcomes, and with no language for communicating or assessing values. [19]

This drive may be independent of any other outside forces. Similarly, the sense of ultimate responsibility for care may influence the physician.[20] This drive, occasionally paternalistic, can lead to demands for excessive accuracy in diagnosis and therapy.[21] The responsibility for final patient care outcome often drives the physician to ensure that no expense is spared to guarantee that the highest standard of scientific quality care is achieved. This standard of excellence is very resource intense.

Probably one of the most powerful internal influences (pressures) driving the model of the doctor-patient relationship is that of physician income production.[22] Increasingly the management of health care and control of resource expenditure is centered around decisions that are influenced by the need or desire for income production. Physicians are often faced, for their part, with decisions that involve procedures or care plans that generate significant income production. While other influences may also come to bear on these decisions, the physician often has a choice between positive income producing decisions and income neutral decisions in therapeutic management plans. As an example, in fee-for-service systems the management decision may revolve around performing a specific service for a

set fee.[23] In a capitated plan, the decision may be to withhold that same service or procedure in caring for exactly the same condition. The income is generated by not expending previously invested resources in the delivery of the care. Thus income production decisions may not mean "do more" but may mean "do less" for the patient in order to pocket the prepayment profit. In either case the physician clearly understands that at least one of the factors involved in any decision is related to income production. The intensity of effort by insurance corporations and the government to control or impact on this particular influence in the doctor-patient relationship clearly indicates its importance and preeminence in the model. [24] It is also a difficult "influence" to quantify and document. Much that passes for an effort to ensure the highest quality of patient care is in fact income production based decision making. If two different treatment plans result in essentially the same therapeutic result and one of them produces significant income for the physician it is only natural to feel the pressure to select the income producing one. As an example, a woman with a mildly abnormal PAP smear can be routinely checked by reexamination or undergo an income producing procedure to cure the condition.

There are also external pressures or influences on the physician and many of them are clearly recognized by both the medical profession and society. One of the most often cited reasons for the increase in health care costs is the pressure on physicians generated by the threat or risk of malpractice litigation.[25] This pressure from patients, lawyers and malpractice insurance companies is distinct from other pressures. It results in a very careful and often excessive use of resources for care of the patient. Additional and repetitive testing is a hallmark of this pressure.[26] Repeat office visits, marginally productive examinations and a very liberal use of

diagnostic procedures ensure that the physician has exhausted all means in attempting to reach a diagnosis and thus avoid a law suit for a missed diagnosis. This drive for completeness leads to an intense use of resources and serves as a significant influence in the doctor-patient relationship.

Other less obvious external influences include the very powerful pharmaceutical companies which drive physicians to use new products and create a sense of correctness or medical appropriateness for the use of these medicines.[27] While the efficacy of most medications is usually not in question, the high cost and powerful marketing efforts of the companies greatly influence the doctor-patient relationship. The use of new or "glamor" medications helps fulfill the expectations of quality for physicians in that they are current in their prescribing skills. For example, the newer generations of antibiotics used for post operative infections are, in general, no more effective than standard combinations of older drugs for most indications.[28] Yet there is tremendous pressure to use the newer drugs in order to stay current in practice.

Another source of pressure to stay current is working along side fellow physicians. The expectations of peers can be a strong motivator for the lavish use of resources. Comparison with other physicians in the medical community and the perception of the skills and abilities of the individual physician can lead to extensive use of resources by way of admissions, procedures and income production for hospitals. Physicians want to "follow the pack."[29]

Institutions can also serve as a great source of influence on physician practices. Specifically, the insurance companies now play an exceptionally active role in second guessing, directing and controlling the care delivered to their insured beneficiaries.[30] The result is pressure on the physician to practice a standard of care with constrained use of resources that is limiting

and financially driven. This is an example of external pressure on the physician which drives them to use less resources. Another example is the civilian hospital administrator or military hospital commander who is operating on a fixed budget and seeks to control or direct physician practices with an eye to minimizing use of these resources.[31] The commander's influence of physicians includes admission policies, indications for drug use, efficient use of the operating rooms, and early discharge from the hospital. All of these serve as sources of resource conservation that are often applied irrespective of the quality of care rendered.

The government, in the form of Medicare policies, has also entered the arena as a major factor in influencing physician practices.[32] Although the original law specifically stated that the doctor-patient relationship would not be influenced or violated by way of reimbursement control under Medicare, the government's fee schedules and weighted indexes have significantly influenced the physician's perception of the relationship. When Medicare was originally enacted it served solely as a reimbursement program. However recently the government has begun to reduce the amount paid to physicians for their services and has shifted the focus to encouragement of primary care services by weighting the payment.[33]

A final area of influence on the type and style of physician practice that has both an immediate and long term affect on resource use is the pressure of Graduate Medical Education. Within the residency training programs there is pressure to ensure that physicians are exposed to the full range of conditions, therapies and treatment modalities.[34] This invokes a special kind of pressure on both attending teaching physicians and residents to maximize the use of resources. Extra tests are ordered for "academic" training purposes and as

new technologies are developed it becomes imperative that the young physicians are schooled in these diagnostic skills during their training.

Even when the trainers are salaried physicians who have no financial stake in the doctor-patient relationship, the pressures in the academic communities for excellence are strong. Classic examples of this include the explosion in the use of resource intense laparoscopic gynecologic surgery despite the lack of scientific evidence that clearly documents its relative value and the explosion in the use of the MRI (Magnetic Resonance Imaging) for diagnosis.[35] This pressure creates an atmosphere conducive to "hunting" for the acceptable candidate in the served patient population. As in the case of pressure for income production, if a patient can benefit from a procedure even when less expensive or less technically sophisticated procedures are available, there is a great push to expend the resource in the name of resident training. This immediate effect is separate and distinct from any use of unnecessary, superfluous or meddlesome tests and procedures. But while there may be value added to several courses of action, it is the more resource intense path that is often chosen. This will continue to be a very powerful and insidious pressure in the doctor-patient relationship.

The long term effect of this pressure stem from the learning experience carried into practice that was described in part at the beginning of this section. Graduate Medical Education has a fundamental impact on these long term habits. Whether they are good or bad, these habits remain a factor unless they are altered by other forces. The cumulative effects of these pressures are noted by Eddy:

> Unfortunately, a large number of incentives encourage simplifications that lead to overutilization. It is time-consuming, mentally taxing, and often threatening to colleagues for a physician to undertake a deep analysis of a confusing clinical problem. A physician is less likely to be sued for doing too much than too little. Most physician's incomes go up if they do more, and go down if they do less. Hospitals get to fill more beds and bill more procedures, laboratories collect more money for services, and companies sell more drugs, devices, and instruments. The more that is done, the more providers win. The losers are patients, consumers, and taxpayers-anyone who has to undergo a valueless procedure or pay the bill.[36]

Those other forces that alter habits are the pressures and influences brought to the doctor-patient relationship by the patient.

The patient is co-equal partner in establishing the influences or pressures of the doctor-patient relationship. Although patients do not have the medical expertise or fund of knowledge of physicians there is a very real contribution that the patient makes to the relationship.[37] This half of the relationship can also be divided into two components for descriptive purposes. How much each portion affects the relationship and the resulting expenditure of resources will vary with the individual and the circumstances. As an example, a woman will enter a relationship with her attending physician bringing a different set of pressures for care while pregnant than if she suffers a simple orthopaedic injury. The nature of the condition will dictate for the patient the intensity and the range of influences or pressures brought to bear. A male soldier injured in combat would view the doctor-patient relationship differently from that same soldier seeking care for a simple skin rash. In order to fully understand this complex relationship we need to examine the half of the relationship that is patient driven.

Internal patient pressures are centered on issues of fear of disease, pain and death.[38] Patients seek consultation with physicians for assurance of

wellness (annual check ups) or to ameliorate illness and dysfunction. They bring to the relationship a pressure for speed and accuracy in diagnoses and quick rectification of their maladies. This pressure is natural and is formed from fears and concerns that are fundamental to life itself. Patient concerns also include the fear of loss of control within this special relationship. All of these issues translate into demands and expectations by patients for the expenditure of resources (money, time, medications, etc.) to relieve their fears.

These patient pressures are independent of those of the physician and may not be based in fact. More importantly, they may either reinforce or negate pressures brought by the physician concerning the use of tests and the performance of procedures. There is great potential for reinforcing pressures. In a hypothetical example, a patient who fears cancer from a persistent abdominal pain may demand an operation for diagnosis. This demand comes after multiple other tests have failed to reveal a diagnosis for the pain. The physician feels pressure for income production, excellence in practice standards, malpractice concerns and may well act in a manner that reinforces this fear. The result is an income producing operation that might not otherwise have been performed and with no guarantee for resolving the cause of the pain (see figure 2). In addition to the potential for complications in the procedure there is the (scientifically) unnecessary utilization of resources. This is usually not a conscious process of adding up pressures and influences but results from a process of dealing with perceptions and expectations. Perceptions by the patient of the quality of care rendered as a direct reflection of the resource expenditure for surgery, which are matched by expectations of the physician that diagnostic exactitude and income have been achieved through surgery. This is a dynamic process of pressures and the tangible

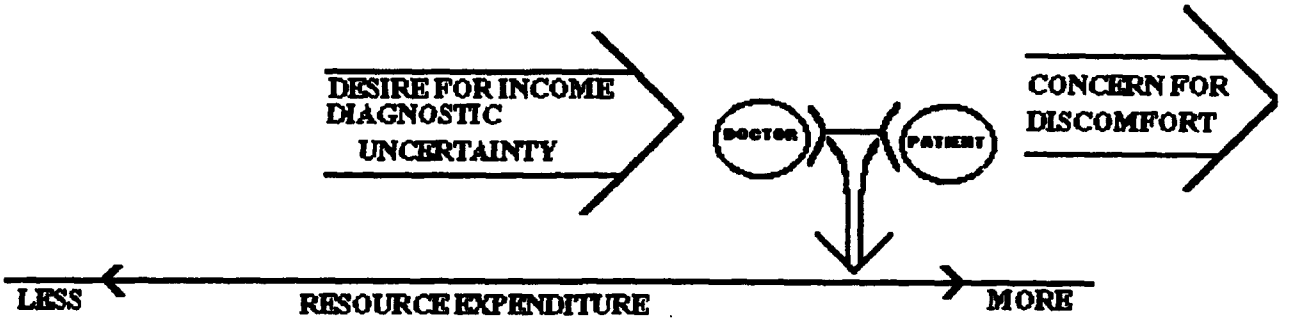
DESIRE FOR INCOME
DIAGNOSTIC
UNCERTAINTY
DOCTOR
PATIENT
CONCERN FOR
DISCOMFORT
LESS
RESOURCE EXPENDITURE
MORE

FIG. 2

perceptions associated with them. But there has also been an evolution in the way patients view their health care. This evolution has led to a new phenomenon.

This new phenomenon is the view of the patient as a business customer. The traditional paternalistic relationship wherein the physician always knew what was best for the patient has given way to a cost conscious and more assertive patient, as a consumer of medical services.[39] This consumer brings a new set of pressures to the doctor-patient relationship in the form of expectations learned in the market place. They include convenience in the delivery of care, timeliness of access and quick resolution of problems, pampering and instant gratification. While none of these expectations or demands have a significant impact on the pure scientific merit of the care provided, they cause significant pressures on the expenditure of resources. For example, timeliness of access to routine emergency room (ER) services is directly related to the resources applied to the operation of the services. If enough doctors, nurses and medical attendants are assigned to work in an ER, then the waiting time to be seen and evaluated will be very short. This criteria is often used by patients as a desirable indication of the high quality of care. If more resources are applied to the ER operation as the demand increases then timeliness will remain acceptable. The new business customer oriented pressure of the patient will be answered. All that remains is to provide an ever increasing amount of resources. Little in this process bears on the scientific quality of the medical care rendered to the patients in the emergency room. True emergencies are normally cared for promptly. All others might safely wait in a resource poor institution or system, but are treated immediately to satisfy their consumer demands if enough resources are expended.

The technology explosion has also fed the consumer demands of patients. They apply their common sense to consumer oriented healthcare needs and generate a pressure for the use of newly available, sophisticated and costly modern medical capabilities and equipment.[40] This pressure is fomented by news reports of fantastic achievements in organ transplants, cancer cures, advances in infertility and space age diagnostic breakthroughs. This pressure is hard to resist when it is coupled with reinforcing physician pressures for exactitude in diagnosis and/or pressure for income production. There is a patient expectation that our modern capabilities should be applied in every case even when true scientific merit or justification is lacking.[41]

An opposing patient pressure in this new consumer market is the demand of the health care industry for discount prices on all of these services particularly when direct patient payment is required.[42] This demand is reflected in schemes and initiatives for lower medical insurance rates and other programs to slow the growth of the cost of purchasing health care. Thus patients expect the law of supply and demand to drive the cost of health care down. When they are faced with the direct payment for care they will create a negative pressure on resource expenditure. They will be inclined to seek care that is the minimum needed to meet their needs at the lowest cost.

In summary, these patient driven pressures, both the concern for life and health, and the demands and expectations engendered by a consumer market, will act synergistically with those pressures brought to the relationship by the physician. The sum of these pressures influences the expenditure of resources for the delivery of health care. Every plan, program, policy or law that seeks to influence or control medical care delivery must be viewed in light of doctor-patient relationship. Each approach must be tailored to directly recognize and possibly control the "pressures" affecting the

relationship. We can now view medical economic concepts in a new light. And we can now redefine terms that are used to describe health care in a way that will more accurately reflect the dynamics involved.

HEALTHCARE GOALS

The goal of a properly managed health care system is accessible, high quality care delivered in the most cost efficient manner. As senior leaders attempt to achieve this goal through plans and programs there must be a clear understanding of the terms that are used to describe the goal. The doctor-patient relationship model allows us to view these definitions in a new light. The dynamics of the model with its competing and complementary pressures on the doctor and the patient will redefine the terms for describing this goal.

The first characteristic of a properly managed system is access. Access for the patient is not only the ability to be seen by the health care provider but to be seen in a timely fashion as exemplified in the discussion of waiting times in the Emergency Room. Access also implies short waiting periods for elective surgery (emergent surgery rarely waits) and also provision of medical services that are of a purely elective nature.[43] Access for the patient means the full range of available medications at the pharmacy window and enough resources to provide periodic physical exams for elderly beneficiaries. These expectation of access are consistent with the patient driven pressures of our model. They are real pressures and to ignore them will result in perceptions of less access.

Access for the physician or for the resource management /leadership team means applying limited resources to that subset of the population with the greatest medical needs. This definition includes scientific criteria of medical appropriateness and sound medical practice. In our Emergency Room

example access means immediate care for the truly sick child or injured paratrooper and probably longer waiting times for those individuals who choose to use the ER rather than sick call or family clinic facilities for their nonurgent or simple ailments. Access means spending the resources to make vasectomies available rather than laparoscopic tubal ligations for family sterilization (a relatively elective medical function). Vasectomies are more effective, cheaper, faster and use fewer resources per couple.[44] But access may also mean establishing telephone advice nurses to help beneficiaries with their medical questions so as to prevent the filling of clinics or emergency room with waiting patients. Ultimately these management decisions of access will be based on a balance of the local resources and local demand. The hospital commander, as an example of a local senior leader, is in the best position to decide on prioritization of resources for maximum access. The leader who clearly understands the model will be able to most effectively identify true access needs and priorities. The leader who understands access as a function of the dynamics of the doctor-patient relationship will maximize resource utilization in the areas that truly benefit the largest number of patients.

While the possible disparity between providers and users as it relates to access are large, the divergence in perceptions of quality are even greater. The patient generally has little scientific knowledge upon which to base a decision on the quality of scientific medical care provided. Other than coarse indicators like death rates, complications in the operating rooms, Cesarean section rates, or the availability of laparoscopic surgery, the patient is left to conclude that much of quality is measured by those same parameters they use in judging other services in the community.[45] These include, as examples, building cleanliness, personal courtesy of staff, parking availability, waiting

time at the pharmacy and the perceived communication skills of the physician. All of these indicators are valid criteria for judging quality. But they all demand resources. The demands on a fixed amount of resources are in direct competition with efforts to deliver scientific high quality care in the form of medications, blood products, critical expensive medical equipment and efforts aimed at ensuring safe care as reflected in morbidity and mortality statistics. As an example, the resource demand can be very great to provide sufficient numbers of health care professionals to safely care for an identified patient population and in so doing provide quality care. The conundrum for medical leadership is to find the proper balance between these divergent definitions of quality so as to preserve the scientific portion of quality while appealing to the patient's expectations as a customer. The doctor-patient model keeps both of these demands in focus. When a balance is achieved the result is the third component of our goal: cost containment.

Cost containment or cost control is that portion of the goal that forces us to look most carefully at the model of the doctor-patient relationship. Cost control in it starkest form translates into expending the least amount of resources on the largest number of beneficiaries to achieve a reasonable quality of care. This blunt statement is at the center of the unspoken processes that often surrounds resource allocation in modern health care delivery systems. Senior leaders must find a balance in this goal by fully understanding and utilizing our doctor-patient model of the health care process to achieve the optimum result. Health care professionals, as well as patients, contribute to the expenditure of funds and both groups must help to control costs. As an example, when leaders establish standards for medical practice that take into account cost containment in the face of the pressures on the physician, as outlined in the model, then these proscribed standards of

care become vehicles for arriving at cost control. If physicians understand the pressures and influences that drive patient perceptions then they are more capable of controlling the pressures and providing high quality affordable health care. For instance, the use of the emerging technology of laparoscopy has added much to the general surgeons' armamentarium for gall bladder surgery. Patients are much more comfortable postoperatively and are discharged home much earlier with a concomitant decrease in the resources expended for the procedure.[46] This is clearly an advance in scientific care and an improvement in the perception of care by the patient, while it is also a more cost effective way to provide the care.[47] In contrast, the use of laparoscopy for hysterectomy has yet to demonstrate a significant scientific improvement in the quality of the care rendered while the costs of the procedure far exceed those associated with standard procedures.[48]

The physician, the patient and the senior resource manager (usually in the form of the hospital commander) must be involved in the process that allocates resources for the delivery of care in order to reach the goal of access to high quality and affordable health care. All participants must use the doctor-patient relationship model as a framework or frame of reference to better understand the dynamics of delivering care. This paper proposes a view of the synergistic doctor-patient relationship and how to use it to better understand and define the goal of accessible, quality, low cost health care. Senior leaders will make a critical mistake if they fail to consider all the implications of the doctor-patient relationship in formulating health care policy. Two examples will suffice to document the value and importance of the model.

APPLICATION OF THE MODEL

An illustrative example of the dynamics captured in the "Doctor-Patient Relationship" is the process of "cost sharing" by patient beneficiaries in the military health care system. As senior leaders examine strategies to generate revenue or decrease expenditure of resources one way to achieve this end is to develop programs which allow the patient to share the cost of the care. Understanding that patients desire quality as consumers sense and also demand access as consumers, those policies which help patients regulate their use of care will achieve the goal. For example, a small charge to patients[49] who use the Emergency Room (ER) facilities will simultaneously encourage patients to use the ER only when necessary. The income generated by the visits in the ER when applied to increasing ER medical staff will result in shorter waiting times. Thus, when a patient does chose to go to the ER, pays the fee and is quickly cared for, they correctly perceive that the care is accessible and of high quality.[50]

With the medical staff fully manned from the resources generated by the charge in the example above, they have the time for proper diagnosis and therapy which improves morale and the sense of achievement, leading to further improvements in the quality of the care. Costs are controlled because the process is more self sufficient. And the patients are pleased at the care provided.

Contrast this example with many military hospitals where patients presently "cost share" by waiting 4-8 hours to been seen in the ER. Their conditions are non-urgent, staffs are over worked and the perception by both doctors and patients is of unaccessible, low quality and expensive care. Although from a purely scientific medical perspective the care is good, the

patients are eventually seen and the costs are minimized, this perspective of cost sharing is untenable in the present climate, particularly when understood in light of the "Doctor-Patient Relationship" model.

Another example of a possible program cost sharing in military hospitals is charging a small surcharge for each filled prescriptions. The revenue generated would allow the hospital to make available medications that are otherwise too expensive to provide.[51] To carry the concept further, if particularly expensive medications where dispensed with a slightly higher surcharge, then the full range and depth of available medications would be offered to the patient population. Access, quality and cost control would be achieved in a manner consistent with both physician desires for the capability to prescribe across the full spectrum of drugs and patients ability to procure the medications.

The alternatives are an extremely restrictive list of available drugs which force military patients to fill prescriptions in local commercial pharmacies. While this is also a brand of cost sharing, it diverts resources to agencies that have a different agenda (profit income) than the military hospital and prevents returning the resources to the served community. It does not achieve the goal as patient's expectations are not met.

In a broader context, the model assist leaders in formulating general policy for health care as in the financing of care under "capitation" systems. In this method of health care delivery the purchaser of the care pays a fixed fee per beneficiary per year and the provider is financially responsible for all the required health care of the population. Nowhere does the model demonstrate its value better in understanding what will drive health care demands than in a capitated system.

Because the dollar amount to be spent on each patient is, on average, fixed, both the doctor and the patient are competing for it. The physician uses the resources sparingly for diagnosis and treatment, and to save the rest as income. The patient expects the full expenditure of the resources to serve their needs as it relates to access, diagnosis and treatment (see figure 3). How this dichotomy is reconciled is at the heart of understanding and using the model. For example, physician resource managers (acting for the physicians as a group) will limit the use of certain types of expensive medications or procedures as long as those restrictions are within standards of care.[52] Alternatively, the leaders may restrict performing procedures to very strict indications that exclude some marginally indicated cases. These restrictions are in place despite patient expectations.

With an understanding of the "pressures" revealed in the model, decisions or rules can also be developed to cover such issues as new technology. Laparoscopic surgery would appear to offer much to patients in terms of quality. But a careful analysis would be required to assess its true cost under the fixed conditions of a capitated system (hospital days, disposable equipment, complication rates, indications for surgery, etc.) prior to providing the service. A full understanding of all the pressures within the "Doctor-Patient Relationship" assists leaders in charting the best course for each of these decisions. The summation of pressures or influences in the use of resources can now be seen with the use of the model. The model explains the relationship between doctor and patient and can guide senior leaders to programs and policies that will achieve the desired goal of accessible, high quality, affordable health care.

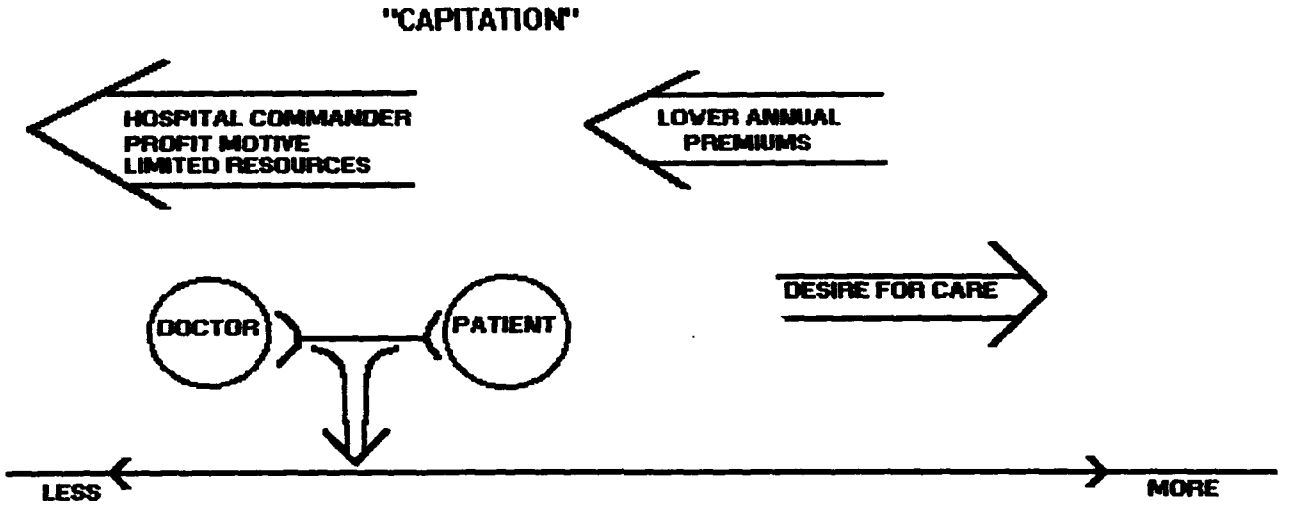
"CAPITATION"
HOSPITAL COMMANDER
PROFIT MOTIVE
LIMITED RESOURCES
LOVER ANNUAL
PREMIUMS
DESIRE FOR CARE
DOCTOR
PATIENT
LESS
MORE
RESOURCE EXPENDITURE

FIG. 3

CONCLUSION

The nation is in the middle of a great debate and is starting a search to reach a consensus in the delivery of health care. Lawmakers, the medical profession and the population are looking for answers to the question of how best to provide this care. The pressures and influences of medicine, the expectations and demands of patients and health care professionals, and the realities of a changing society are forcing medicine to search for new and innovative ways to achieve accessible, high quality, affordable care.

A model of the doctor-patient synergism is presented as a method for analyzing and understanding these pressures and influences which are fundamental underpinnings of health care. Understanding the model allows policy makers to gain insights into programs for achieving their medical health care goals. This model affects every facet of health care delivery and serves as a guidepost for developing centrally initiated strategies and solutions. Failure to consider the dynamics of the model is a critical error and will prevent leaders from achieving the goal of accessible, high quality and cost effective health care.

ENDNOTES

[1]Laurene A. Graig, Health of Nations:An International Perspective on U.S. Health Care Reform (Washington D.C.: Congressional Quarterly, Inc, 1993), 15.

[2]"Gateway to Care" and "Tricare" are two examples of DOD initiatives in managing limited resources.

[3]E. J. Emanuel and A. S. Brett, "Sounding Board: Managed Competition and the Patient-Physician Relationship," NEJM 329 (16 Sep 1993): 879.

[4]Jay Katz, The Silent World of Doctor and Patient (New York: The Free Press, 1984), 29.

[5]Pete Franks et al, "Sounding Board: Gatekeeping Revisited- Protecting Patients from Overtreatment," NEJM 327 (6 Aug 1992): 424.

[6]James F.Fries et al, "Special Articles: Reducing Health Care Costs by Reducing the Need and Demand for Medical Services," NEJM 329 (29 Jul 1993): 322.

[7]Fee-for-service is the traditional form of resourcing that involves a payment of a fee for the providing of a service on a case by case basis.

[8]Managed competition involves delivery of health care by orchestrating groups of providers so that they compete with each other for the proprietorship of health care for a population. The reimbursement is still on a fee-for-service basis but with discounts and special deals.

[9]Capitation involves a health care provider receiving a set amount of money per year per beneficiary in a closed population and having responsibility to provide all needed care for that population on the fixed amount of money provided.

[10] Federal programs include Medicare and Champus which are fee-for-service systems administered through private insurers. DOD and the VA are examples of capitation programing.

[11]Alan H. Rosenstein and Margaret M. Stier, "Health Resource Management and Physician Control in a San Francisco, California, Hospital," Western Journal of Medicine 154 (Feb 1991): 180.

[12]David Blumenthal, MD and Arnold M. Epstein, MD, "Special Article: Physician-Payment Reform-Unfinished Business," NEJM 326 (14 May 1992): 1330.

[13]John K. Igelhart, "Health Care Reform, The Role of the Physicians," NEJM 330 (10 Mar 1994): 730.

[14]Emanual, 881.

[15]Peter J. Greco, MD and John M. Eisenberg, MD, "Sounding Board: Changing Physicians' Practices," NEJM 329 (21 Oct 1993): 1271.

[16]David M. Eddy, "Variations in Physician Practice: The Role of Uncertainty," Health Affairs 3 (Summer 1984): 75.

[17] Much in the practice of medicine is habit. Resident physicians learn standards of practice that include routine use of their preferred medication (antibiotics for example) and will vary that practice little unless faced with changes in availability of those medications or significant changes in scientific standards.

[18]Jerome P. Kassirer, MD, "Sounding Board: Our stubborn Quest for Diagnostic Certainty," NEJM 320 (1 Jun1989): 1489.

[19]Eddy, 83.

[20]Katz, 86.

[21]Albert R. Jonsen, The New Medicine and the Old Ethics (Cambridge: Harvard University Press 1990), 55.

[22]Alan L. Hillman, MD, "Health Maintenance Organizations, Financial Incentives, and Physicians' Judgments," Annals of Internal Medicine 112 (15 Jun11990): 891.

[23]H. Gilbert Welch MD and Elliott S. Fisher, MD, "Lets Make a Deal: Negotiating a Settlement Between Physicians and Society," NEJM 327 (29 Oct 1992): 1312.

[24]Paul Starr, Ph.D., "Special Reports: The Framework of Health Care Reform," NEJM 329 (25 Nov 1993): 1666.

[25]Roger A. Rosenblatt, "Obstetric Practice Patterns inWashington State After Tort Reform: Has the Access Problem Been Solved?" Obstetrics & Gynecology 76 (Dec 1990): 1105.

[26]James S. Todd, "Sounding Board: Reform of the Health Care System and Professional Liability," NEJM 329 (2 Dec 1993): 1733.

[27]Stephen B. Sounerai, ScD and Jerry Avorn, MD, "Principles of Education Outreach ('Academic Detailing') to Improve Clinical Decision Making," JAMA 263 (26 Jan 1990): 549.

[28]Despite habit, physicians will change antibiotic routines if their peers do, nurses ask them to for convenience of administration or the 'detail man/woman' convinces them to change. Cost is most often considered and efficacy is rarely a significant issue.

[29]Eddy, 86.

[30]Stephen D. Boren, MD, "Sounding Board: I Had a Tough Day Today, Hillary," NEJM 330 (17 Feb 1994): 500.

[31]Rosenstein, 177.

[32]John J. Iglehart, "Health Policy Report: The American Health Care System: Medicare," NEJM 327 (12 Nov 1992): 1467.

[33]John J. Iglehart, "Health Policy Report: The American Health Care System: Introduction," NEJM 326 (2 April 1992): 962.

[34]The Residency Review Committees for each specialty conduct periodic (every 3-5 years) evaluations and inspections of training programs. These include audits of the numbers and types of patients cared for during the year by each resident, number of surgeries for each resident and qualifications of the Professors. Failed inspections lead to loss of accreditation.

[35]Guy M. Boike, MD et al, "Laparoscopically Assisted Vaginal Hysterectomy in a University Hospital: Report of 82 cases and Comparison with Abdominal and Vaginal Hysterectomy," American Journal of Obstetrics and Gynecology 169 (Jun 1993): 1690.

[36]Eddy, 85.

[37]Joanna M. Cain, MD, "Is Deception For Reimbursement In Obstetrics and Gynecology Justified?" Obstetrics & Gynecology 82 (Sep 1993): 475.

[38]Katz, 143.

[39]Daniel Callahan, Ph.D., "Sounding Board: Rationing Medical Progress: The Way to Affordable Health Care," NEJM 322 (21 Jun1990): 1810.

[40]Yona Tadir, MD and Benjamin Fisch, MD, "Operative Laparoscopy: A Challenge for General Gynecology," American Journal of Obstetrics and Gynecology 169 (July 1993): 7.

[41]Michael L. LeFever, MD et al, "A Randomized Trial of Prenatal Ultrasonographic Screening : Impact on Maternal Management and Outcome," American Journal of Obstetrics and Gynecology 169 (Sep 1993): 483.

[42]John K. Iglehart, MD, "Health Policy Report: The American Health Care System: Managed Care, NEJM 327 (3 Sep 1992): 742.

[43]David R. Hadorn, MD and Robert H. Brook, MD, "The Health Care Resource Allocation Debate," JAMA 266 (18 Dec 1991): 3328.

[44]At Womack Army Medical Center, Ft. Bragg, NC in a single morning at the ambulatory surgical wing one Urologist safely performed 36 vasectomies while a gynecologist completed only 7 laparoscopic tubal ligations in the operating room. The total cost for each vasectomy was $2.50 /for each Tubal $ 350.00+.

[45]Richard V. Lee, MD, "Is Good Health Good?" The Pharos (Winter 1994): 35.

[46]Clausia A. Steiner, MD et al, "Surgical Rates and Operative Mortality for Open and Laparoscopic Cholecystectomy in Maryland," NEJM 330 (10 Feb 1994): 403.

[47]Patients who undergo laparoscopic cholecystectomy can often go home that evening or the next morning. This is in contrast to a seven to ten day stay for open gallbladder surgery. The marked difference in pain with the open type causes very slow recovery of bowel and lung function. The hospital cost savings are significant.

[48]Bioke, 1695.

[49]Most proposed plans would exclude those families of soldiers in the pay grade of E-5 and below from a charge, due to the potential for financial hardship.

[50]At Womack Army Medical Center the average daily volume of patients treated was of such a magnitude that a simple $5 charge for all dependents and retirees would have generated more than enough revenue to add several full shifts of health care providers, to include physicians.

[51] A $1 charge on the filling of each prescription at Womack Army Medical Center's pharmacy would have generated enough income to lift all restrictions on the dispensing of medications from the pharmacy.

[52]Rosenstein, 176.

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