Alpha Omega Alpha’s strong commitment to the practice of medicine, medical education, humanism, service, and professionalism brings with it a responsibility to be involved in the discussion of issues affecting the practice of medicine in the United States today.

We are soliciting original essays on topics in health care policy and other pressing national health care issues for publication in this new section of The Pharos. Essays should be scholarly, well-referenced discourses that include the background and suggested approaches to solving problems confronting the nation’s health care system. All essays will be subject to peer review. Essays published will convey the views of the author(s) and are not those of the board of directors of Alpha Omega Alpha.

Dr. John Kastor, MD, professor of Medicine at the University of Maryland School of Medicine and medical governance and organization consultant, will be the editor of this section. Dr. Kastor and the board of directors of AΩA welcome your contributions, comments, and critiques of the essays we will be publishing.

The first essay in this series, written by Dr. Robert H. Moser, was originally published in Autumn 1999. Dr. Moser graciously updated it for this issue.
All the recent roilings and rumblings about the hospitalist movement prompt recollection of a biblical aphorism; the “writing that was written” on the wall of Belshazzar’s banqueting hall (Daniel 5:1–31*) has become ever more evident. Having observed the evolution of our discipline for over five decades, I am joining the ever-growing legion of speculators mulling the future of our noble but embattled calling. I don’t love all that I think will happen, but I am optimistic that ultimately a better system of medical care will emerge.

Universal health care—structure and function

Within the next ten years we will take “The Big Step” and adopt a Universal Health Care System (UHCS). Progress will be incremental. But each stage will be iconoclastic by contemporary standards. Outpatient care will be delivered by primary care providers (PCPs) and specialty clinics. These PCP teams will consist of an amalgam of nurse practitioners, nurse midwives, and physician assistants, who may or may not work under the supervision of a primary care internist, a family physician, or osteopathic physician. The physician will become the captain of the PCP (outpatient) team. Over time, the distinction between MD, DO, RN, and PA will blur and diminish. They all will be PCPs. Their training will be consolidated, standardized, and conducted by academic health centers (AHCs), and tailored to the needs of ambulatory medicine. It may even be further refined to meet specific requirements of PCPs in rural or inner city environments. Students desiring to become team leaders or to continue beyond medical school into residency training will have a separate curriculum pathway or additional year of medical school.

In the early years, teams of nonphysicians/PCPs working in underserved areas will function in virtual autonomy. They will follow diagnostic and treatment protocols (algorithms) based on the latest evidence-based information. Such data will be periodically refined, updated, and modified to ensure that the guidelines remain appropriate and adaptable for implementation at the local level. This will help ensure reasonably uniform quality of care across the country, in contrast to the current irrational regional variations in cost and quality. For clinical problems that cannot be resolved by a specific protocol, PCPs will have real-time interactive telecommunications capability that will be part of the na-

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* Daniel 5:1–31: Belshazzar the king made a great feast to a thousand of his lords, and drank wine before the thousand, . . . In the same hour came forth fingers of a man’s hand, and wrote over against the candlestick upon the plaister of the wall of the king’s palace: and the king saw the part of the hand that wrote. Then the king’s countenance was changed, and his thoughts troubled him, so that the joints of his loins were loosed, and his knees smote one against another. . . . And this is the writing that was written, MENE, MENE, TEKEL, UPHARSIN. This is the interpretation of the thing: MENE; God hath numbered thy kingdom, and finished it. TEKEL; thou art weighed in the balances, and art found wanting. PERES: Thy kingdom is divided, and given to the Medes and Persians. . . . In that night was Belshazzar the king of the Chaldeans slain. And Darius the Median took the kingdom, being about threescore and two years old.
tional electronic medical records system (EMRS) with on-call hospitalist-specialists at a previously designated academic health center or other regional Center of Excellence nearby.

Performance of PCPs will be evaluated by periodic random review of records that look for reasonable compliance with established protocols coupled with assessment of patient satisfaction that takes into consideration patients' personal views on the impact of overall management on their quality of life. This review will be accomplished by teams of other PCPs who will rotate for a month or six weeks away from their regular assignments. Excellence in performance will be rewarded with yearly bonuses for PCPs and hospitalists.

Evaluation will become the responsibility of a beefed-up Agency for Health Care Research and Quality (AHRQ), which will exist under the umbrella of UHCS and assess the quality of care being delivered by all AHCs and their satellite facilities, including clinics and isolated health care providers. It will ensure that all diagnostic and therapeutic algorithms are indeed evidence-based, clearly written, and updated when new data become available.

These algorithms will be regarded as guidelines, not rigid dictums. AHRQ evaluation will not insist on blind adherence to the algorithm, but will allow rational, reasonable variations within the guidelines to incorporate individual patient characteristics (socio-economic status, age, emotional stability and reliability, environmental circumstances) whenever possible. Greater emphasis will be placed on long-term outcomes and patient quality-of-life satisfaction. Such practices will return some of the art to the practice of medicine.

Repeated failure of individual PCPs to meet established standards will result in appropriate disciplinary action, up to and including license suspension. A similar mechanism will be established for hospitalists representing all specialties and subspecialties.

All hospital inpatient care will be conducted by general internists and specialists (the former will become hospitalist-generalists and the various subspecialists will become hospitalist-specialists). These will include intensive care, all medical and surgical subspecialties, and every other specialized branch of medicine. Initial management will be conducted by hospitalist-generalists, who will triage consultations and referrals when indicated. All hospitalists will be salaried employees of their institutions; their incomes will not depend on how many patients they see or their dollar "productivity." The Single Payer Program (SPP), the financial arm of the UHCS, will negotiate and establish salaries and bonuses based on mutually-accepted criteria.

PCPs will be encouraged to look in on their admitted patients and provide the hospitalist-generalists with insight about important aspects of the nature of the patient’s previous management, socio-economic status, personality, or expressed desires (for example, diagnostic and therapeutic preferences, concepts of quality of life, end-of-life desires, etc.).

The financial picture

The UHCS will begin as an extension of a modified and vastly expanded Medicare system. Under UHCS, every citizen and legal immigrant will be eligible for coverage (universal capitation) by a payroll deduction increase in current FICA levies, and a system of copayments, adjusted through a realistic means-testing formula. Illegal immigrants will be served for emergencies but denied any long-term care. Their children will receive full coverage.

All finances will be controlled by the UHCS via the SPP. This will include AHCs, their satellites, and peripheral PCPs. The UHCS will begin as part of the U.S. Department of Health and Human Services, but will rapidly outgrow its parent. The AHRQ will also come under the umbrella of UHCS.

All AHCs and their satellite facilities will submit annual budgets. This is the way the VA and military hospitals operate today. Budgets will be based on true costs, without plugging in a profit margin, since all salaries and operating expenses will be known. An MRI or an aspirin will cost the same in Boston and Lubbock. The current avalanche of paperwork and personnel time devoted to billing (seeking payment from patients, endless negotiation with insurers) will be significantly reduced. Operating costs will thus be lower.

Problems solved by implementing UHCS

Shortly after the initial launch of UHCS, it will become cost effective. The underlying premise will be an effort to reduce or even eliminate “profit” from the health care equation. (It is my naive belief that health care is such a primal aspect of life that it should never be subjected to the vicissitudes of cost considerations or excessive profit making in a modern, civilized society.) Unfortunately, some few physicians seek wealth from illness by ordering excessive and unnecessary procedures. A handful of these have managed to game the system even further by setting up their own diagnostic laboratories, home health care facilities, and “health” spas. They route their patients to these areas, from which they derive income. Of course, there will always be outliers to the UHCS. Some wealthy citizens may well opt for “boutique” care—delivered by entrepreneurial physicians.

On the other hand, some health care providers, in today’s litigious climate, are tempted to overprescribe medications and order excessive laboratory procedures “just in case.” I hope that in the future litigation will be tempered by having all potential suits submitted to legally-binding arbitration by a local committee composed of a team of impartial health care providers, lawyers, and a judge. Such a body would be legally empowered to decide whether compensation, punitive action, or no action is justified. The “defendants” would be the individual health care provider(s) and the UHCS (if the health care provider is working under the UHCS). Premiums for malpractice insurance should then decline significantly. Those outside the system will deal with litigation as in the past.
I assume that in this era of tort reform the dreadful economic burden of futile care for terminal vegetative patients will be eliminated. Hospital ethics committees will facilitate decision making on these sad cases. Hospice care will be encouraged.

I hope we will return to an environment in which medical decisions are predicated on solid, evidence-based indications and "cost" to the patient will not be a factor (this milieu prevails in VA and military hospitals today). "Therapeutic failures" arising from patients being unable to purchase medication, and cases of the poor elderly faced with buying either food or drugs will cease.

**Pharmaceutical companies—a problem**

It seems logical to assume that, over time, the pharmacology departments of AHCs could assume a much greater role in new drug development, now largely the province of commercial pharmaceutical companies. Why not? Much of the early work is already done in AHC pharmacology departments and most of the creative pharmacologists in industry learned their trade in academia. The individual or the team that creates the new drug will be rewarded with bonuses in addition to their existing salaries. Such a system already exists in enterprises such as Microsoft and Bell Laboratories, among others.

Clinical testing is already being done in AHCs and their affiliates. Pharmaceutical companies have no direct access to patients. Once the new drug is proved to be safe and effective (and approved by the FDA), commercial production can be farmed out to pharmaceutical companies. The AHCs will have no role in commercial production. Of course, for the foreseeable future new drug development will come from industry. The time will come when the pricing of all drugs will be direct between industry and AHCS. This environment would discourage the creation of "me too" drugs.

Such a structure would result in a fair and reasonable cost of drugs because there would no longer be a need for commercial advertising. The stunning amounts now deployed to pay "detail men" to convince health care professionals to use a specific drug, the giving of trinket gifts, food, or vacations, and the massive public advertising campaigns on television and in print should be reduced significantly, shrinking the cost of drugs.

Information about new agents or improved old drugs will appear in the medical literature in dedicated sections. There will be more frequent publication of newsletters such as The Medical Letter, which the UHCS will distribute free to all health care professionals. A vital UHCS “drug information” web site will be updated weekly.

**The role of the academic health center**

Under the UHCS, AHCs would become the focal point of all health care delivery and illness prevention. They would be given the manpower and finances to ensure the highest quality of care in all institutions within their designated geographical area. These would include private hospitals, community hospitals, clinics, VA centers, and military hospitals. Some institutions may elect to remain independent of the UHCS. This will be their prerogative.

Since all research and clinical faculty will be salaried, they will no longer be obliged to divert excessive time from clinical research and teaching to income-producing direct patient care.

Such innovation will require a revolutionary revision in current organizational arrangements and our philosophic approach to medicine. Over time, the system would be expanded and refined to ensure fair allocation of resources and mutually beneficial cooperation between institutions. In the final configuration, the AHCs would bear ultimate responsibility to ensure the quality of care, employing the expertise of the AHRQ.

The AHCs would be subsidized completely under the SPP of the UHCS. In addition, the current disproportions in income among health care providers will be largely eliminated. Since all will be salaried, no longer will some physicians receive excessive incomes while others are barely adequate. VA and military hospitals, as well as the Mayo Clinic operate under this model and prove that this payment system works. In addition, the pay scale for nonphysician health care providers will be increased reasonably.

Until such time as a UHCS becomes fully operational, pharmaceutical and medical equipment manufacturers (and perhaps any other commercial enterprises that profit from patient care activities) would be obligated, by law, to tithe a percentage of their profit to the SPP to help subsidize the UHCS.

**Electronic medical record systems (EMRS)**

One by-product of the new system would be a resurrection of bedside teaching rounds, with renewed emphasis on integrating the patient into the dialogue. One member of the rounding team will carry an iPhone or laptop that will be plugged into the EMRS. This will enable access to: (1) complete patient information at the bedside, (2) medical information systems, and (3) computerized prescribing order entry (CPOE), thus facilitating data entry at the bedside and helping to prevent medication errors. Of course CPOE will be available for all drug prescribers. In addition, we will have real-time bedside access to other visual diagnostic aids, such as scans, radiographs, and electrocardiograms.

EMRS will be an integral part of the UHCS. Implementation will be augmented by grants (from UHCS) to all health care providers (hospitals, clinics, practitioners). Any patient participating in the UHCS will be obliged to...
agree to have his/her records available. Confidentiality will always be a problem, but less so with a thoughtfully constructed access mechanism. If one opts out of UHCS, and wishes to go “private,” records will remain confidential.

The care of the patient

Rounds will be enhanced by the presence of a clinical psychologist and pharmacist to sharpen appropriate discussions into psychological and pharmaceutical aspects of management. Patients will be kept apprised, in clear and straightforward language, of discussions regarding their care. Sensitivity and discretion will be the watchwords governing all bedside encounters. The overall impact of teaching rounds will be positive for patients: they will always feel that their medical problems are receiving input from knowledgeable, sympathetic professionals.

Periodically, the AHRQ, operating as an arm of the UHCS, will conduct epidemiological surveys and evaluations to determine the clinical and economic effectiveness of satellite hospitals and clinics operating under the aegis of their responsible AHCs. They will focus on management of specific medical problems. It is well known that hospitals (and physicians) with greater experience in specific areas (for example, coronary artery bypass surgery or organ transplantation), operating in so-called Centers of Excellence (CEs) produce outcomes considerably better than those with less experience.

Therefore, over time there will be a concentration of specific referrals to CEs within geographic proximity to the referral source, based on these carefully evaluated performance reviews. The intention will be to reduce duplication and redundancy of procedures. Transport from peripheral hospitals or outpatient facilities to the nearest CE that provides the specific service required will become part of an extensive medical transportation network. This will be a function of the UCHS, operating at no expense to the patient. With longer medical transportation network. This will be a function of the UCHS, operating at no expense to the patient. With longer

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system, or down and dirty economic necessity rather than the clear virtue of sound medical science.

Another related problem threatens the future of American medicine: the alarming decline of physician investigators committed to basic or clinical research. According to the Association for Patient Oriented Research, the number of first-time applications by physicians for National Institutes of Health (NIH) research grants plummeted thirty percent between 1994 and 1997. This pattern continues today. Some cynics say we should leave the field of medical research to those with doctorates in basic sciences. I think not. This would certainly widen the already existing breach between bed and bench. So why are fewer physicians selecting careers in research? Economic disincentives lead the pack: the enormous debt burden of most medical graduates and the modest stipends of postdoctoral trainees.

There exists a solution. We must expand, revitalize, and reorient the National Health Service Corps (NHSC). To a certain extent this is occurring, but it is too circumscribed and underfinanced. NHSC affords bright but poor students (especially minorities) the opportunity to come into medicine without incurring debilitating debt. I feel such an infusion of fresh blood could provide the same tide of intellectual and spiritual revitalization that we see when eager new immigrant populations enter the country. In addition the NHSC should be made available to all health care practitioners (osteopathic physicians, nurses, nurse practitioners, physician assistants, nurse midwives). Medical school curricula will have to be modified extensively to accommodate these new PCPs.

The major change in NHSC will occur when the time comes for their repayment (after the medical school or postgraduate training years)—they will not have the option of “buying out.” That defeats the purpose and spirit of the NHSC. These new physicians (or PCPs, or perhaps even some hospitalist-generalists and hospitalist-specialists) will be assigned to underserved areas for a time determined by level of indebtedness (years in residency training) at the discretion of the NHCS. Those who demonstrate a talent and desire to do research will be allowed to repay some or all of their time by conducting postdoctoral bench research or clinical investigation. NIH study sections will be required to revise the philosophy of their granting process, to acknowledge the critical importance of patient-oriented investigation. Thus, the revitalized NHCS program would provide at least partial solutions to two vexing problems: acquiring health care providers for underserved areas, and encouraging more physicians to consider careers in medical research.

Admittedly, this is a cheeky, bare bones (I will even concede, simplistic) sketch of what I believe many aspects of the ultimate system will look like. I am convinced that the many devils in the details can be worked out by thoughtful people, representing different disciplines in and out of medicine, who will be seeking a mechanism to devise a workable UHCS to ensure optimal care at a reasonable cost. We certainly can learn from the strengths and weaknesses of other Western countries. If this pie in the sky dream plan seems to have Orwellian overtones, it need not. The transition will be tumultuous and the inevitable bureaucracy must be anticipated and contained. But it should be far less turbulent than exists today in the prevailing nonsystem.

The opposition by special interest groups will be formidable, but we are forced to the grim realization that we stand on the brink of chaos. Perhaps the magic number will be 150 million people without adequate health care before we are willing to accept the seismic changes the system demands.

Prognosis

Medicine will always be conducted on a human to human basis. But, to acknowledge the hard facts, over the years most of us in medicine became complacent; in many areas we lacked discipline and some few of us became downright greedy. In our zeal to leave no stone unturned on behalf of our patients, we too often neglected the realities of fiscal responsibility. In our benignly paternalistic fashion, we did things “our way” for a long time. That is why the unwelcome nose of the managed care camel has managed to creep so successfully under our tent. Entrepreneurs sensed what I call a “golden vacuum,” a chance to fill a perceived need and enjoy enormous profit. Undoubtedly, managed care has brought some renewed sense of discipline and fiscal reality to medicine. But as it exists, it has too many warts. Major modifications will occur, retaining some of the good things we have learned, but eliminating those that cause grief. The changes will be facilitated by implementation of the UHCS when those infamous mantras of “obligation to our shareholders” and “incentives and disincentives” have been expunged from our lexicon. This revolutionary concept will require patience and vigilance. It will not come easily.

The intangibles of compassion, caring, and patient advocacy will always be a function of the sensitivity of the health care provider. These virtues must always be coupled with good medical science. I think it will all come to pass once medicine has survived the revolution and matured, to evolve a true partnership with those for whom we care.

The original version of this paper was published ten years ago. On reflection, after ten years the noise level has increased; we seem to be edging toward a rational plan that will bring reasonable care to all our people. Perhaps it will take a bit longer, maybe more than another decade. But I’m not sure we have that much time.

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