Abstract. Within the next decade, it is predicted that more than 90% of the United States population will receive its health insurance through managed care. Capitation will be the reimbursement mechanism to health care providers as the major way of controlling costs. Currently, managed care has had little experience with capitation payments for chronically ill patients, who consume large financial and physical resources. The end-stage renal disease (ESRD) population represents a vulnerable group of patients, and their care may be compromised in a capitated environment. Nephrologists will need to serve as advocates for ESRD patients through a mechanism of quality of care, driven by a continuous quality improvement model. Cost-effective delivery of care will occur as nephrologists join together to form Independent Practice Associations (IPAs). In this article, the role of a nephrologist in a capitated environment is outlined in detail, and background for the basis of managed care growth is provided as a framework for understanding the change in our health care delivery system. After formation of a nephrology IPA, there will most likely be a linkage with a management service organization (MSO). A business plan driven by the highest principles will allow nephrologists to work together as a cohesive force in accepting global risk capitated contracts. The starting point is for ESRD care, and the future includes pre-ESRD care. (J Am Soc Nephrol 8: 1618–1623, 1997)

The managed care revolution is steamrolling through medicine, predominating health care delivery systems in the United States, and it is incumbent upon physicians to address the many issues that will have an impact on patient care. Managed care has three major agenda items: costs, costs, costs. In this managed care world that is obsessed with costs, there must be a commitment to quality care for all patients. In particular, the ESRD patient is potentially vulnerable, because managed care has little experience with high-cost chronic illness. As physicians try to deal with the intricacies of managed care and capitation, which emanates as the next step, it may be stated that “the light at the end of the tunnel is a train coming right at you.” The unique level of care necessary to maintain the health of the typical renal patient, the ESRD program, and the political realities of budgetary constraints in the public and private sectors combine to produce a problematic outlook for the future of nephrology (1).

Government agencies, health care institutions, insurance companies, and managed care organizations (MCOs) are now setting the rules for health care, rendering physicians’ authority and patients’ rights increasingly irrelevant (2). Patients and physicians are aligned together in the era of managed care, and the professional ethics of physicians are potentially a barrier to insurance companies, MCOs, and other health care payors. Payor organizations are attempting to reduce appropriate use of services without fully informed consent of the patients they serve.

The Basis for Managed Care Growth

In 1996, it is estimated that health maintenance organizations (HMOs)/MCOs provided health care to more than 120 million Americans, including 75% of all U.S. workers with health insurance (3). Premium dollars to these organizations totaled more than $200 billion a year. Managed care plans are adding new members at the rate of approximately 8 million per year. By the year 2000, 80% of all Americans will be enrolled in managed care plans. Therefore, understanding our current and immediate future is imperative for the nephrology community so we can focus our attention on the delivery of quality care.

Managed care has thrived because money is saved with checks and balances in the system. This did not exist in the past. As long as someone other than the patient paid the medical bills, there was no incentive to control medical costs. Also, HMOs/MCOs provide convenient, low-hassle care for patients who are basically healthy. For the patient, managed care means less paperwork and smaller copayments than traditional insurance. The system works well as long as the patient does not require a large amount of medical resources. Suggested ways to reform ailing health care system, adapted from George Anders’ book Health Against Wealth: HMOs and the Breakdown of Medical Trust (4), are:

1. Accept the principles of cost-effective medicine, but do not be afraid to challenge specific managed care rules.
2. Encourage the multidisciplinary development of practice guidelines that every segment of the health care society accepts.
3. Enact regulations (at both the state and federal level) to decide sensible payment schemes for HMOs. A primary
Physicians’ Interaction with Managed Care

Managed care is falling short of its promise and is failing to provide adequate health care to many Americans (5). Physicians can play a major role in restoring balance to a system that in recent years has emphasized cost over quality treatment. Business executives running MCOs believe they are providing quality medicine at a reasonable price, but they are far removed from individual patients’ concerns. Administrators’ reliance on computer spreadsheets at MCOs in suburban office parks creates a barrier to understanding what is occurring “in the trenches.” The purpose of this article is not to criticize managed care, but to understand some of the excesses that have occurred recently and the role of physicians in countering these excesses. Because MCOs are accountable to their shareholders, they have a natural tendency to aggressively pursue maximum profits. Conversely, physicians are directly accountable to their patients and therefore have an ethical and presumed responsibility to emphasize optimal care.

Cost-effective medicine is a permanent part of our landscape, and physicians must buy into the processes that dictate effective utilization of limited financial resources. Fighting managed care at every step will be a losing battle, and it is our responsibility to take the lead in health care delivery by admitting that we are dealing with finite resources. However, improving medical decision making by physicians who understand patient issues will inevitably lead to better care than relying on utilization review clerks at giant insurance companies. Physicians should work together in larger groups because in a world in which data and dollars will dominate the process, individual practitioners are not equipped to challenge financial decisions/incentives made by the MCOs (6), which may be based on limiting utilization. Medically necessary care must not be withheld, and all appropriate therapeutic and diagnostic alternatives must be presented as options in keeping with the physician’s primary role as patient advocate.

Managed Care and the ESRD Population

Patients with chronic renal insufficiency or chronic renal failure need access to nephrologists, because it has been shown that we can deliver more cost-effective care than internists/generalists (7,8). A disease management approach would work well with ESRD and may be an effective alternative to the current health care delivery system. Nephrologists can best address issues of management of anemia, hypertension, renal osteodystrophy, and metabolic acidosis in the patient with chronic renal failure. Access to the nephrologist before end-stage renal failure develops can potentially slow the progression of disease or at least better prepare the patient for the eventual renal replacement therapy. A case management approach would support the nephrologist in his or her role as the principal caregiver for the patient with ESRD. A healthier patient reaching ESRD due to improved management will cost less because of reduced hospitalization and lower mortality rates. Therefore, the following principles are critical for patients with chronic renal failure in MCOs:

1. Access to relevant specialists, without gatekeeper approval before each visit, is imperative once the diagnosis of renal failure is established.
2. Early referral to a nephrologist must be established via a protocol. National Institutes of Health guidelines should be followed (9): The female patient should see a nephrologist when the serum creatinine is $\geq 1.5$ mg/dl, and the male patient should see a nephrologist when the serum creatinine is $\geq 2.0$ mg/dl.
3. Each HMO must have a mechanism for providing ESRD patients access to dialysis and transplant providers in their geographic area. All forms of renal replacement therapy must be available to the patient.
4. A multidisciplinary approach for care of the ESRD patient must be recognized by the HMO/MCO. The horizontal integration of the renal care team includes physician, nephrology nurse, social worker, nutritionist, and possibly rehabilitation/exercise specialist.
5. Practice guidelines, best demonstrated practice, and clinical pathways will be the guiding principles for delivery of care to the patient with renal disease.
6. Patient education programs must be in place so the patient can be an active participant in his or her own care. Patients need to know what to expect from members of the renal care team and understand what their responsibilities are to their own care.
7. HMOs/MCOs must inform patients of the exact limits and extent of coverage of renal-related issues.
8. Each HMO/MCO needs to provide continuing data to the United States Renal Data System (USRDS) database.
9. Outcomes research is a critical component to improving quality care.
10. Continuous quality improvement (CQI) must be in place (see below).

CQI

Physicians measure quality in terms of excellence of the service they provide ("doing the right thing") and the quality of their interaction with patients. Scientific data will drive change as physicians do respond to relevant information (10). Organizations and health plans emphasize the optimal functioning of systems when they define quality of care. For the next decade, it is predicted that access to care in a setting of global coverage will come as the result of Congressional mandate (e.g., Kassenbaum-Kennedy law). Quality improvement must accompany access to the system while attention to costs becomes part of the paradigm shift. Nephrologists must guard against jeopardizing quality in an attempt to reduce the cost of health care services.

Excellence is measured in terms of outcomes, patient satisfaction, and appropriate use of resources (a true cost-effective approach). Cost containment efforts that focus on reducing inappropriate use of health services and avoiding preventable adverse events will allow physicians to become effective cost managers and improve quality at the same time (11). Pursuing this strategy can avert the need to control costs with blunt measures, such as copayments and severely restricted freedom of choice, which may lower costs but also may pose serious barriers to necessary and appropriate care (12).

Assessment of patient outcomes must be closely linked to the process of patient care. CQI is an method that equals the process of delivering care. Giving physicians constant feedback about their performance compared with that of their colleagues will foster participation in good quality, cost-effective care. Outcomes research will help define the issues and allow focus on the areas where an impact can be made. A national program currently exists with the Health Care Quality Improvement Program (HCQIP) in ESRD (11). HCQIP has three major components:

1. National Core Indicators Project
2. National Cooperative Anemia Project
3. Facility-specific indicators/intervention

Quality: How to Define and How to Measure

As stated above, quality is measured in terms of excellence of outcomes, patient satisfaction, and appropriate use of resources. Quality cannot be translated directly into reducing length of hospital stays, and centers of excellence cannot be defined as institutional organizations that have negotiated the lowest cost package from the insurer. The cost containment aspect of quality can focus on reducing inappropriate health services and avoiding preventable adverse events. Physicians can cut costs and improve quality by addressing these two issues.

Quality can be measured in terms of structure, process, and outcomes (13). The structure of care is defined by: (1) systems characteristics; (2) provider characteristics; and (3) patient characteristics. The process of care is defined by: (1) technical issues; and (2) interpersonal style. Outcomes is measured by: (1) clinical endpoints; (2) functional status; (3) general well being; and (4) patient satisfaction.

The Medical Outcomes Study (14) conceptual framework can address the three issues of structure, process, and outcome (see Figure 1). Adaptation of the Medical Outcomes Study quality schema to the ESRD/dialysis setting has been done by Dr. John Sadler (13). Dr. Sadler has evaluated structure in terms of organization and staff, physical plant, equipment, and patient characteristics. Process is noted by the policies and procedures of the setting. What processes are important and do they have a plausible and measurable relation to outcomes? Outcomes examines the usual morbidity and mortality while addressing the medical problems that occur specifically and most frequently in the ESRD population. Attention is paid to health status and patient satisfaction as well as staff turnover and nurse satisfaction. Health status is measured by both generic instruments and disease-targeted instruments.

ESRD and Capitation

In 1996, the Health Care Financing Administration (HCFA) launched an ESRD Managed Care Demonstration Project (15). Based on a Rand Corporation report (16), capitation would cover every component of care delivered to the dialysis and transplant patient. There would be one capitation rate for those receiving maintenance dialysis, a much higher capitation payment will be made for a kidney transplant (covers 3 mo), and a much lower capitation payment for the subsequent 3-yr period of Medicare eligibility for those successfully transplanted. It is the intent of this 3-yr patient study (a 5-yr total project) to determine whether: (1) managed care is feasible for ESRD patients; (2) there can be significant cost savings with global capitation; (3) health outcomes improve for ESRD patients as a result of integrated acute and chronic care services; (4) capitation rates reflect treatment needs and increase probability of kidney transplant; and (5) additional benefits are cost-effective. The global payment would cover all inpatient and outpatient services, medications, home health services, transportation, and long-term care.

After Brandeis University's Institute for Health Policy (on contract from HCFA) developed the request for application, four sites (two in California, one in Florida, and one in Tennessee) were selected to participate in the project. At present, the project is about 9 mo under way, and the first year is designed for budget negotiations between HCFA and the grant recipient. Problems arose even before enrollment started because of budgetary differences about the cost of care, especially in the area of transplantation. One award recipient, PacifiCare, has already withdrawn. PacifiCare stated that it withdrew its application because of unresolved questions about reimbursement for the HCFA project (17). Reimbursement projections have changed from the original proposal because of an HCFA reanalysis of Medicare payments made under primary versus secondary payor status. Although it was expected that there would be increased reimbursement per patient for the project, the reimbursement for transplants was drastically reduced because HCFA had planned to remove separate payment
for organ procurement costs and lump it into the global payment. Cost accounting is still in flux, and the final word about the actual global payment for transplantation remains in doubt. It is unknown whether the current reimbursement schedule creates a disincentive for transplantation. Enrollment at the three remaining sites, Kaiser Permanente (California), Health Options, Inc./Blue Cross-Blue Shield (Florida), and Phoenix Health Care (Tennessee), is expected to begin in October 1997.

Outside the Managed Care Demonstration Project, patients with ESRD cannot enroll in HMOs under Medicare contracts, but may remain in the HMO if they develop ESRD after enrollment. Only 6600 patients with ESRD are currently enrolled in HMOs because they belonged to the particular HMO plan before they needed dialysis. If a patient develops ESRD, current law prevents the individual from then joining an HMO. In the proposed Clinton Administration fiscal year 1998, carve out for ESRD patients will be eliminated, and they will no longer be excluded from joining HMOs/MCOs. It appears that this legislation will pass as part of the budget reconciliation, the emphasis being on increased choice to beneficiaries while simultaneously curtailing program growth. The projected 5-yr HCFA ESRD capitation demonstration project may be short-circuited by market forces. If Congress removes the ban on ESRD patients enrolling in HMOs/MCOs, then the market will determine global reimbursement. This is where it becomes important for nephrology to be organized.

**Nephrology IPAs and the Future**

Since capitated payments for ESRD patients will be based on per patient per month reimbursement, regardless of the services delivered, it is critical to know every component of cost delivered to the ESRD patient and who controls the flow of dollars. Therefore, it is incumbent on nephrologists to form a subspecialty independent practice association (a nephrology IPA), because no individual, group practice, or academic division would have the sophistication to handle the intricate cost accounting. Broad participation by academic and practice-based nephrologists in such an IPA within a state or large region will create an opportunity for effective negotiation with HMOs/MCOs based on knowing total costs and value of ESRD care. By working together, nephrologists can drive a quality care system based on a CQI model. The mission statement for
any nephrology IPA should include a commitment to quality of care in a cost-effective environment and a dedication to nurturing the future of this subspecialty. Giving back to the community includes a commitment to take a certain percentage of profits “off the top” to fund continuing medical education, research support, fellowship grants, outcomes research, and patient education. Organizations such as the National Kidney Foundation (with its affiliate structure) is a logical recipient of the nephrology financial support because its officials can distribute the funds in an unbiased manner. Making a commitment to nephrology and to its future would send an excellent message to government and private payors about how nephrologists view their responsibilities.

The defining question that needs to be answered before any group starts a nephrology IPA is, “What can we do together that we cannot do separately?” If the answer is driving a quality care system based on a CQI model that includes all nephrologists who are qualified (as determined by the credentialing committee), while at the same time assuring the future of nephrology, then a nephrology IPA is ready to be formed. Monitoring quality of care is an intrinsic function of an IPA, clinical performance measures being instituted by colleagues (18). No effective measurements currently exist in MCOs for monitoring quality care for the chronically ill; there are only retrospective reviews that are based on a punitive approach. Issues of control, governance, and capitalization of the IPA require repeated dialogue among the leaders and organizing/coordinating/steering group that take responsibility for the initial formation of the IPA. There will have to be a “buy-in” of all nephrologists who eventually participate in the IPA, with agreement on the mission statement, principles, and business plan that form the backbone of the organization. Issues of antitrust will arise with the formation of any large IPA, but the proposed template should pass Federal Trade Commission scrutiny (19). Space does not permit a more detailed analysis of antitrust, but there is much support from health law attorneys and other experts to address this area.

The formation of a nephrology IPA requires a commitment to participate in the process (20). Table 1 lists suggested minimum committee structure and function. A successful IPA can be an integrated provider for ESRD and pre-ESRD care.

Ingredients for a successful plan include: (1) physician input into various plan processes and arrangements; (2) payment methods and rates that are fair and accurate; (3) utilization management that is reasonably accommodating to individual practices; (4) a willingness to put patients’ interests ahead of profits; (5) effective communication; (6) assisting the physician with management skills that lead to financial rewards; and (7) use of performance measures and even termination of some nonresponding physicians to improve cost-effective quality of care (16). A functioning committee structure will be necessary for total effectiveness of an IPA.

**Linkage with an MSO**

After an IPA is formed, the next step is linkage with an MSO, because there has to be recognition that the IPA is a business venture (driven by the highest principles) (21). Physicians generally do not know enough about business to accept full responsibility for contract negotiations, business management, accounting, practice management, and informatics (see Table 2 for recommended functions an MSO must deliver).

Choosing an MSO should occur only after the nephrology IPA is an established legal entity. Review of several MSO business plan proposals may then be done by an appointed *ad hoc* committee of the IPA. Final recommendation may then be brought to the entire IPA for approval.

It is incumbent on all nephrologists to work together to assure a proper role in the care for the patient with kidney disease. The information outlined above represents a small vision for the future, but the time is now. Will Rogers stated, “Even if you are on the right track, if you stand still you will be run over.” Let the nephrology community take charge of the

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**Table 1. IPA committee structure**

<table>
<thead>
<tr>
<th>Committee</th>
<th>Function</th>
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<tbody>
<tr>
<td>Clinical Practices Committee</td>
<td>defines care based on practice guidelines, best demonstrated practice, and clinical pathways</td>
</tr>
<tr>
<td>Quality Care/CQI Committee</td>
<td>improves physician performance via feedback and provides mechanisms for CME</td>
</tr>
<tr>
<td>Technology Committee</td>
<td>assesses new technology that may be cost-effective</td>
</tr>
<tr>
<td>Credentialing Committee</td>
<td>sets the standards for qualifications and CME expectations</td>
</tr>
</tbody>
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*IPA, independent practice association; CQI, continuous quality improvement; CME, continuing medical education.

**Table 2. Managed care organization functions**

<table>
<thead>
<tr>
<th>Function</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance</td>
<td>equal representation with nephrologists</td>
</tr>
<tr>
<td>Contract/Practice Management services</td>
<td>generally equal to the IPA commitment</td>
</tr>
<tr>
<td>Provide capital</td>
<td>eliminate ambiguities</td>
</tr>
<tr>
<td>Proactive and willing to take risks</td>
<td>Administrative structure with experienced senior staff</td>
</tr>
<tr>
<td>Experience with negotiations</td>
<td>Participate in CQI from a management standpoint</td>
</tr>
<tr>
<td>Utilization management programs</td>
<td>employment of case managers who work for the physician group</td>
</tr>
<tr>
<td>Compensation Committee</td>
<td>dealing with collection and distribution of resources</td>
</tr>
<tr>
<td>Informatics</td>
<td>a sophisticated computer system that allows collection of data necessary for a sophisticated operation and communication to all participants</td>
</tr>
</tbody>
</table>

*Abbreviations as in Table 1.
future as a cohesive group dedicated to quality of care in a cost-effective environment.

References