

Executive Summary

Many insurers capitate primary care physicians to control costs. Physicians are contracted to so-called "Preferred Providers Organizations" based only on cost. These physicians are selected according to their will to work for less on a per-case basis, not upon their clinical outcomes. They are not preferred doctors, but discounted ones. They hope to make up for the discount in increased "incidents of care". MSO has developed and implemented a new approach to control the costs of cardiac clinical care, managing the 3 levels of candidate identification: Clinical analysis, diagnostic testing and the invasive procedure. The concept is based on "Contact Capitation" of a full service, i.e. a fixed price for diagnosing a cardiac patient (regardless of the number and kind of tests required) and a fixed price for interventional treatment, including catheterization and surgery if needed. We call this concept Target Outcome Capitation. The capitated price is a function of the volume of patients referred to our service.

Such a service will save money, but more important this product shifts the risk from the Insurer to the service provider, enabling the employer to accurately predict annual expenditure for cardiac care.

How do diagnostic costs get out of control?

When a cardiologist orders a diagnostic procedure, one of the following will occur:

1. If he owns the testing equipment (echo, nuclear, etc.), the test will be performed at his office, with no cost control available to the employer.
2. Referral to an "in-network facility", does not assure the use of the most cost effective or best diagnostic procedure. The sole cost control, in this case, is left in the hands of the specialist/PCP's approval, which merely determines the necessity of testing at the treating physician's level.

The question remaining is: "Where should the cost containment gate be placed?" There are 3 possible options:

1. All diagnostic tests to be approved by the Primary Care Physician.
2. At the specialist level.
3. A medical necessity review/pre-certification, (usually a nurse).

Each option has its drawbacks: Neither the primary care physician nor an R.N. performing a medical necessity review has the level of expertise to determine the necessity of a particular set of tests. Individual price capitation of specialty procedures, defeats the purpose of primary care gatekeeping because the specialist will use more procedures to create his preferred income. On the other hand, a specialist who is contracted on fee-for-service basis, does not have an incentive for a combination of good medicine and cost containment.

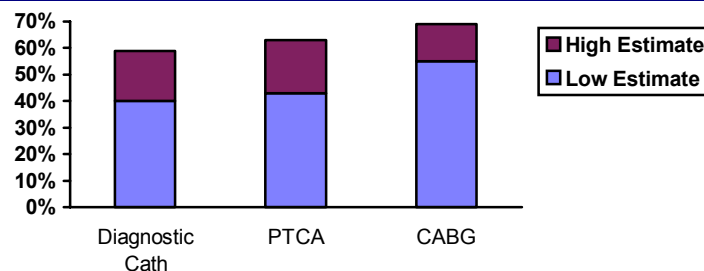
Alternatively, a specialist who only writes the prescription for diagnostic tests, may not be sensitive to issues of cost containment and medical effectiveness.

How can we achieve savings?

Historically, 21 procedures account for nearly 40% of healthcare cost. They include, but are not limited to: Angioplasty, Cardiac catheterization, Coronary Artery Bypass¹. Current healthcare management programs do not address the need for adequate care in a timely fashion. Fig. #1 exhibits the rate of abuse of key cardiac procedures.

An angina pectoris patient with a strong clinical history, for example, should not be required to undergo a standard stress test prior to a more diagnostic nuclear stress test. Once the patient is in the cardiac catheterization lab, the availability of functional cardiac anatomy from a nuclear stress test will allow direct coronary intervention with angioplasty or related procedures, at the time of the initial catheterization. In the absence of the information from a high quality nuclear stress test, the cardiologist performing the catheterization does not have full information regarding the necessity of angioplasty for borderline or moderately diseased vessels. This can either lead to unnecessary angioplasties or untreated diseased arteries, both of which are not cost effective. By precisely *identifying* candidates, and *promptly* performing the *appropriate* procedures in a *cost effective* manner, unnecessary hospitalization and recurrence of symptoms can be avoided. This is the medical rationale behind our service product, which can achieve savings.

Unnecessary Procedures (as a percentage of all procedures)



Source: Medical Economic, August 22nd, 1994

Figure 1

Controlling the "Uncontrollable cost"

Unbelievable as it may seem, the current system of utilized by employers encourages poor quality of all medical services and hospital providers. Poor quality care results in repeat hospitalizations, repeat procedures and repeated unnecessary diagnostic tests. Under this structure of cost containment, none of the separate "participating providers" have an incentive

¹ Others include: Carpal tunnel surgery, cataract surgery, C-sect, Cholecystectomy, Septal surgery & Rhinoplasty, Hysterectomy, MRI, Knee Arthroscopy, Knee replacement, Low back surgery, Meniscectomy, Pacemaker implantation, Prostatectomy, Tonsillectomy/Adenoidectomy, Hip replacement, Tympanostomy, AMSOssion for low back pain, CT spine.

in increasing the quality of their care to reduce the overall cost of care. Accurate diagnostic procedures, expert specialists with superior outcomes and cutting edge hospital services are all vital components of high quality care which saves money. The inherent cost savings in a contact capitation environment is momentous. However, the standard methodology of contact capitation bears great risks without strong controls. We believe that our system has in it the controls to provide the high quality of care and savings.

Defining: Classic Contact Capitation

The concept of contact capitation has been defined as: Capitated budget for given specialty divided among individual specialists according to the number of referrals received; at first contact with a given patient, specialist receives lump sum payment to cover all professional services within that specialty for a set period.

Contact capitation is highly, inarguably effective, but requires strong controls to keep the incentives aligned with patient's needs. Classic contact capitation has the following drawbacks:

- Fee-for-service distribution of capitation budget may increase inpatient utilization (physician churning to increase share of smaller pie).
- Absence of overall department cap can lead to specialty cost overruns if referrals are too high
- Multispecialty contact capitation reduces network ability to channel patients with specific conditions to specialists with expertise in that area.

MSO developed a modified contact capitation which addresses these concerns and delivers highly efficient, cost effective comprehensive cardiac healthcare.

Figure 2 exhibits the aggregate annual savings potential in Cardiac Care (source: Value Health Sciences, Inc.; Governance Committee Capitation Model; Governance Committee analysis).

The information in this chart is based on interviews with more than 500 experts in the field and more than 200 providers, insurers, consultants, trade associations and government agencies.

Aggregate Annual Savings Potential in Cardiac Care

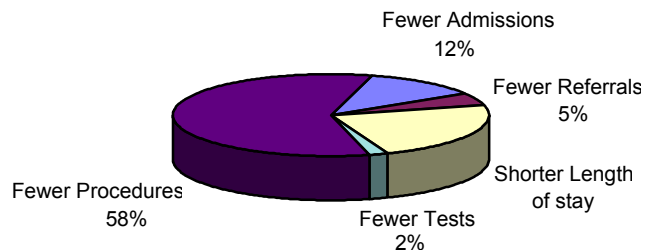
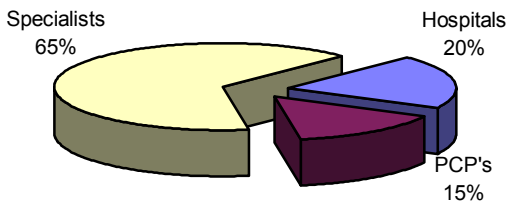


Figure 2

Source: Value Health Sciences, Inc., Santa Monica, Calif., 1993

Introducing: Target Outcome Capitation

Healthcare spending (100%=\$582 billion)



Source: HCFA, HHS News, November 22, 1994

Figure 3

The procedures which account for 40% of healthcare costs are predominantly prescribed by specialists, which control two thirds of health care spending (Figure 3). By introducing a modified contact capitation an enormous savings is generated. Only by changing the structure and realigning the incentives of the employer can quality care become truly cost effective. Our concept combines risk sharing techniques with outcome incentives in targeted clinical settings.

The clinical settings we address are two:

- Provide accurate, timely and appropriate diagnosis for cardiac diseases.**
- Deliver effective, timely and appropriate treatment for cardiac diseases.**

Target outcome capitation places a fixed price on these two clinical settings. In the diagnostic setting, the desired outcome is an accurate diagnostic evaluation of the patient's cardiac condition. If the outcome (clinical diagnosis) is not obtained, clinical re-evaluation is necessary. Under normal conditions this results in additional testing that is costly to the employer. Under target outcome capitation, the diagnostic test results must be satisfactory to the primary care physician. If further diagnostic testing is found necessary, no additional cost will be incurred by the employer for a period of 30 days.

As a modification to classic contact capitation, TOC (Target Outcome Capitation) works as follows:

- Eliminates fee-for-service distribution of revenues and personal capitation of specialists, thus creating a fully capitation cardiology specialty department
- By performing a vertical integration of cardiac care - from testing, through diagnosis to treatment, TOC delivers experts in each of the respective fields of radiology, nuclear cardiology and invasive cardiology.
- By creating a tightly-knit specialty group, "gaming" to maximize share of income is eliminated and pushing the capitated incentive to the individual level yields increased cost savings.

I did have one surgical specialist pound on the table and say, “Do you realize if we do this, only patients who absolutely need surgery will be getting it? “

Medical Director
West Coast IPA

Integrating clinical care and diagnostic testing

By placing the most advanced diagnostic tools at the hands of the treating specialists we provide better care for our patients. This requires well informed cardiologists who have the expertise of utilizing these procedures.

In order to monitor and control the success of referrals to specialists, all diagnostic procedures and office visits that lead to a diagnosis are combined into one closed system. This establishes a vertical integration that will result in a significant reduction in cost.

A closed system encourages good medicine if:

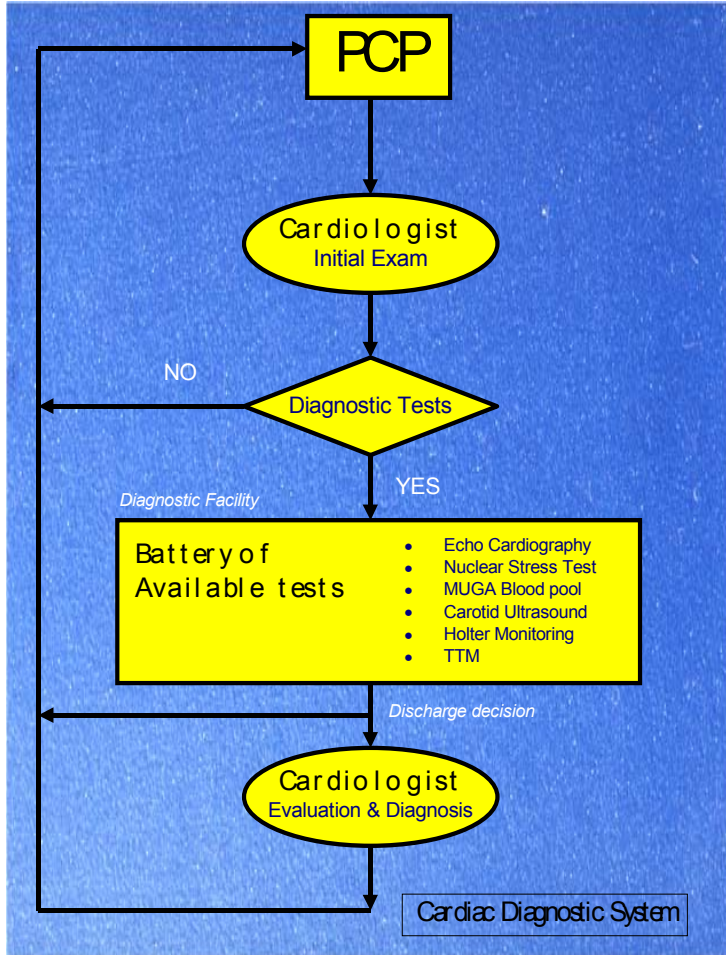
- * The system contains inherent controls and feed-backs that constantly monitor the clinical decisions based on outcomes
- * The system creates precise diagnoses with outcomes that can be measured by their accuracy.
- * The cost containment is placed at the entry to the system.

The cardiologists in the system are credentialed according to the highest standards. Their decisions for tests and final diagnosis are checked continuously and each patient is seen twice by the cardiologists in the system. This structure encourages the physicians in the system to consult with each other informally (and formally) resulting in a cross-verified diagnosis.

We provide a one month warranty on diagnoses. If the referring physician sends the patient back within the warrantee period on the basis of insufficient diagnosis, the patient is re-evaluated and diagnosed at no charge.



The Cardiac Diagnostic System (CDS)



The Cardiology Diagnostic System consists of a core group of board certified cardiologists with an accompanying diagnostic facility that can perform all cardiac diagnostic testing. The system's services are capped by a fixed price per patient encounter. Typically a patient is referred to the CDS by a PCP. He is then seen by a cardiologist, who will determine which diagnostic tests are required for the patients condition. The tests are then performed at the diagnostic center, the results are evaluated and a diagnosis is reached. The patient might be seen again by a cardiologist. The results for follow up will always be provided to the referring physician/PCP.

CDS units are assigned exclusive predefined geographical territories which balance the unit's business needs as well as providing the employer with sufficient diversity.

Target Outcome Capitation works.

In a trial study, MSO confirmed the above mentioned premises: It is possible to create an independent system which restructures physician incentives around good medicine. At MSO's owned & operated imaging center - Bergen Medical Imaging, we created a core group of board certified cardiologists who operated under target outcome capitation model conditions. A financial model was put into place, which transforms general aMSOssions into the center into a simulated managed care organization. Outcomes were compared against the group's diagnosis based on the tests done at the center. The results confirmed the model as viable and successfully addresses the needs.

Under Target Outcome Capitation - TOC, the PCP's role as a gatekeeper is secondary to their role as the patient's advocate. They represent patient's needs and interests to the CDS, rather than fight the patient's request for a specialist referral.

The strength of TOC is the ability to bring cost-containment incentive to individual level.

Conclusion

Employers and their third part insurers are constantly in a battle between two driving forces: Efficient healthcare delivery and cost containment. Capitation, bonuses, fines, accreditation, panels, pre-certification - are all methods in pursuit of cost containment. Expectations for similar quality of care at a reduced price create a conflict of interest among participating physicians. If the concern for income is relieved, and the only interaction with health plan provider is on a medical professional basis, it is possible to embrace physicians and encourage good medicine.

As we expand the scope of our attention from cost of individual episodes of care to the overall process of diagnosis and treatment, it becomes apparent that fighting cardiac diseases is similar to countering a missile attack. As enemy missiles get closer, the efforts (cost) needed to track and hunt them down increases. Target outcome capitation provides a hedging tool with which an employer can accurately project the cost of care while the risk is taken directly by the providers of care (specialists and diagnostic centers).