AMERICAN RE HEALTHCARE
A Division of American Re-Insurance Company

NewsLetter December 2005

Personal Accident Reinsurance: *Increasing Importance As Catastrophic Events Grow*

Since the terrorist attacks of 9/11, the potential impact of a catastrophic event has become much more obvious. Also, the frequency and severity of such events seems to be increasing. In the past year, we've seen one of the deadliest natural disasters in world history–the Indian Ocean Tsunami–which resulted in 175,000 deaths, a coordinated terrorist attack on the London underground and bus systems with over 50 deaths, and a Category 4 hurricane in the United States which caused over 1300 deaths. Against this backdrop we consider an important but sometimes overlooked risk management tool to help protect your bottom line. *[See page 2]*

Disease Management: *3 Issues Key to Realizing Potential Savings*

When evaluating disease management (DM) programs, purchasers may be offered "guarantees" on the savings that will result from a DM program implementation. Generally, these guarantees state that, if a DM program doesn't save money (using a contractually-defined calculation), the DM company will return a portion of the program fees. These guarantees, **if properly designed and easily interpreted**, can help protect the purchaser. However, negotiation (and settlement) of a guarantee on a DM program can sometimes be difficult. We highlight three important areas to consider when negotiating a DM contract. *[See page 3]*

Hemodialysis: *Planning,Type Selection, Early Placement, Can Significantly Reduce Complications*

Hemodialysis vascular access procedures and associated costs can represent as much as 25% of total annual End Stage Renal Disease (ESRD) medical costs. In addition, thrombosis and infection of the vascular access site accounts for about 20% to 40% of all hospitalizations of patients undergoing hemodialysis. Here we review some common problems and suggest methods for improving results. *[See page 4]*

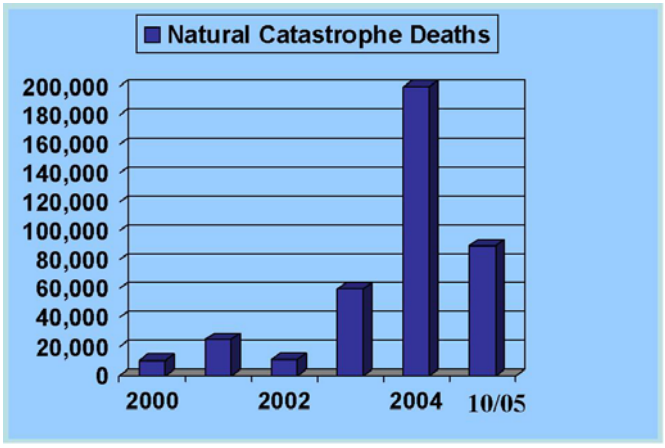
- American Re HealthCare's Steve Abood participated in a panel discussion titled *Self-Funding Strategies in Today's Environment* at the annual Society of Actuaries conference in NYC.
- Donna Peterson has joined American Re HealthCare as VP of Underwriting to help lead our entrance into Personal Accident business.
- American Re HealthCare was a major sponsor at the AHIP Fall Business Forum in New York and the DMAA DM Leadership Forum in San Diego.

- Enrollment for Medicare Prescription Drug Plans (Part D) began November 15. Benefits will start January 1.
- Heart attack survivors whose hearts were infused with stem cells from their own bone marrow showed nearly twice the improvement in the organ's pumping ability as patients given a placebo, according to a study presented at the American Heart Association annual scientific meeting.

Personal Accident Reinsurance:
Increasing Importance As Catastrophic Events Grow

As the growing list of catastrophic loss events unfolds each day in news reports, it touches us both personally and professionally, and it's tempting to think that things couldn't get much worse. Think again..

Can you imagine if a few of the details were changed? What if a tsunami struck the east or west coasts of the United States? Not an implausible scenario considering the seismic and volcanic potential in the Pacific and Atlantic oceans. And what if the terrorists in London doubled or triple the number of targeted sites, or instead targeted sites in New York or Los Angeles? Or, consider the consequences if a Category 5 hurricane made landfall when a majority of the residents were unable to flee their city due to an unexpected gas shortage? In each scenario the death tolls could have been significantly higher. These types of devastating loss events are realistic examples of why insurance companies purchase Personal Accident Reinsurance.



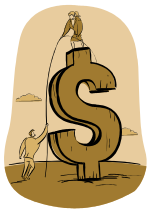
Source: MRNatCat*SERVICE*© *2005*

Whether you are the chief actuary of a life insurance company or an underwriter of special risk products, the possibility of a catastrophic loss event is probably one of the things that keeps you awake at night…and it should. While Property and Casualty reinsurance is typically given primary consideration by underwriters, Life and Special Risk reinsurance can also be an important risk management tool.

One advantage of writing Life and Special Risk versus Property and Casualty insurance is that people will generally flee in the event of impending danger, while buildings are stationary. However, not all impending disasters provide warning, and the exact location of lives when an event occurs cannot be determined at the point of underwriting. Also, as Hurricane Katrina proved, not everyone is willing or able to remove themselves from harm's way.

The accidental death risk assumed by a life and special risk writer is priced predominantly on the frequency risk as opposed to the severity risk. The frequency of mortality can be modeled and priced with a fair degree of predictability. The severity or concentration risk, however, is more difficult to quantify, even with the advent of sophisticated catastrophe models.

Insurance products sold through employers represent a concentration of risk, whether at work, a conference, or in an airplane. Products sold on an individual basis can also represent concentration of risk–think of the 50,000 Nebraska residents concentrated in a single stadium watching a Cornhuskers football game.

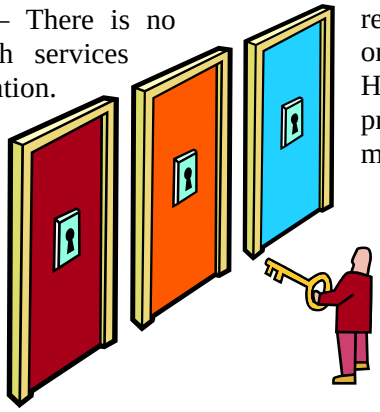


Personal accident reinsurance offers protection for spikes in frequency risk, but the bigger advantage is the protection of an insurance company's bottom line in the event of a catastrophic event.

Disease Management: *3 Issues Key to Realizing Potential Savings*

1 - How members are included for the "covered population" – Generally, DM companies will only guarantee savings on a "covered population" (the population the DM company believes they can affect). However, a carefully chosen covered population can result in savings regardless of the effectiveness of the DM program. For example, if the covered population consists of the costliest 1% of plan members in the previous year, it is very likely that the covered population will cost less than it did in the previous year. As a result, a DM company could show "savings" without performing any services.

2 - Definition of included services – There is no "right" or "wrong" answer on which services should be included in a guarantee calculation. However, a DM purchaser should be aware of trade-offs associated with this definition. Some of the possible definitions:



- *Only "disease-related" services on covered members* – This option seems ideal, since DM companies are trying to affect "disease-related" services. However, defining "disease-related" services is difficult. For example, diabetics with Congestive Heart Failure (CHF) tend to require more costly services than non-diabetic CHF patients. Should CHF-related services be considered "disease-related" in a diabetes program?
- *Only inpatient services on covered members* – For the most part, the goal of DM programs is to reduce inpatient admissions, so this seems appropriate. However, in many cases, DM programs reduce inpatient days by increasing office visits and pharmacy utilization/compliance, thus increasing physician and drug costs. Shouldn't those increased costs offset any savings?
- *All services on covered members* – This option solves the problem of the previous two options, but because it includes costs that the DM program makes no attempt (or claim) to reduce, it may seem "unfair."
- *All services on covered members, excluding those with over $X in claims* – The removal of large claims is intuitively appealing, since it will reduce volatility and ensure that a single trauma case doesn't skew the calculation. However, what if that large claimant was a CHF patient that wasn't being properly cared for? Such a patient would likely have benefited from an effective disease management program, so does it make sense to eliminate that patient from the calculation?

3 - Determination of "benchmark" trend – When calculating savings, most guarantee calculations will base savings not on savings over prior year costs, but savings over **trended prior year costs**. Adding trend to prior year costs does make the calculation more favorable to the DM company, but it is a reasonable request. After all, without the DM program, one would expect costs to increase with trend. However, we believe there are significant problems with two of the most common methods of selecting trend.

- *Pre-selected trend* – Upon execution of the contract, an explicit trend can be agreed to. However, this method results in the guarantee being at least as reliant on an accurate trend projection as it is on an effective DM program.
- *Using "non-chronic" trend* – If we assume that trend for the "covered," or "chronic," population is roughly equal to the rest of the population, we can use the trend observed in the non-chronic population to trend prior year costs for the covered population. However, unless necessary adjustments are made, this methodology seems to be biased in favor of the DM program.

If you find yourself looking at various DM vendors and/or savings guarantees, please take advantage of the time we at American Re HealthCare have spent researching disease management. We'd be happy to provide more detail on the above issues, as well as other aspects of DM programs that may be of interest.

The Society of Actuaries paper "A Comparative Analysis of Chronic and Non-Chronic Insured Commercial Member Cost Trend," available at **http://www.soa.org/ccm/content/areas-of-practice/health/research/eval-results-care-man-int/,** reviews the problems with using "non-chronic" trend. It also discusses two trend methodologies that we believe are much more appropriate, "ever/never" and risk-adjusted trends.

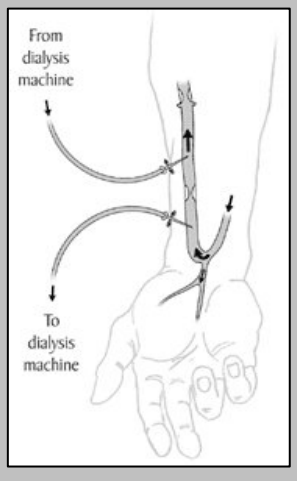
Hemodialysis: *Planning,Type Selection, Early Placement, Can Significantly Reduce Complications*

The lifeline for any hemodialysis patient is their vascular access site. Hemodialysis requires frequent access to the patient's blood stream or vascular system, which is necessary for the blood to exit and re-enter the body during the treatment process. Adequate hemodialysis therapy should allow for a high volume of continuous blood flow, and this process is dependent upon properly functioning vascular access. Access dysfunction results in lost dialysis time, inadequate dialysis, and associated morbidity and mortality.

A vascular access site should be prepared weeks or months before the patient undergoes their first dialysis treatment. A well placed, mature site will allow easier and more efficient blood flow with fewer complications. With proper planning and working in the earlier stages of chronic kidney disease (CKD) this can usually be done in an outpatient setting.

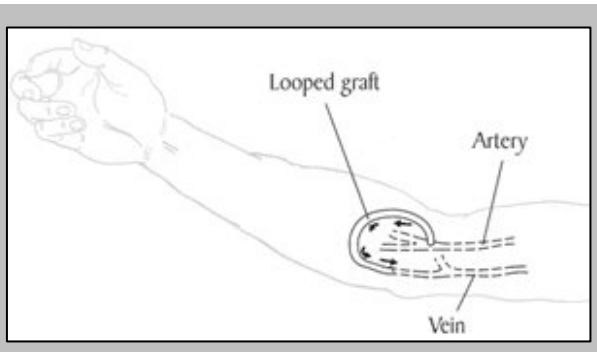
There are basically three types of vascular accesses for hemodialysis: the first being an *Arteriovenous (AV) Fistula*. A fistula is an opening or connection between any two parts of the body that are usually separate. While most kinds of fistula can pose problems, an AV fistula is useful since it allows the vein to grow larger and stronger for easy access to the blood system.

Arteriovenous Fistula



This type of access is preferred by most physicians and dialysis providers but requires a longer period to mature prior to use. The AV fistula is considered the best long-term vascular access for hemodialysis because it provides adequate blood flow for dialysis, lasts longer, and has a complication rate lower than the other access types. If this type of access can not be placed, there are two remaining choices, an AV graft or venous catheter.

(Graphic source: National Kidney & Urologic Information Clearinghouse)

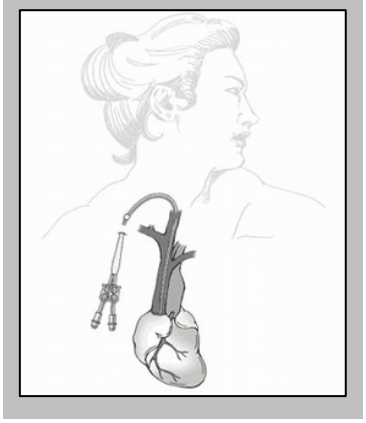


Arteriovenous Graft

The *Arteriovenous (AV) Graft* is considered the second choice by physicians. If the patient has small veins, this normally prevents the development of a proper fistula, and a graft is necessary. A synthetic tube implanted under the skin of the arm can be used as an artificial vein. This tube will withstand the repeated placement of the needles and blood flow during the weekly treatments. Typically, a graft does not require time to mature as the AV fistula does; therefore, the graft can be used most times within a few weeks after placement.

A *Venous Catheter* is the third approach, and is normally used for temporary access. This is typically the first type of procedure when kidney disease has moved quickly and unexpectedly and there may not be time to gain permanent access before the first hemodialysis treatment is needed.

Venous Catheter



A catheter is a tube inserted into a vein in either the neck, chest, or leg near the groin. It has two chambers to allow two-way flow of blood. Once a catheter is placed, needle insertion is not necessary. This is why most patients who have a catheter are hesitant to go back into the hospital to have a graft or fistula placed.

It is important to educate the patient that a catheter is not ideal for permanent access. It can clog, become infected, or cause narrowing of the veins in which they are placed. However, to start hemodialysis immediately, a catheter can be used effectively for several weeks or months while permanent access develops.

In some cases, fistula or graft surgery may not be successful, and the only choice is a long-term catheter access. A catheter that will be needed for a longer period of time is designed to be tunneled under the skin to increase comfort and reduce complications.

Regardless of the type of access, problems can occur. The access site is the patient's lifeline and must be used at a normal rate of three times per week for several hours each time. Most access problems are only treated once they become severe, at which point the treatment is more costly.

Careful planning, accurate access type selection and early placement have been shown to significantly reduce access-related complications. Additionally, proactive monitoring and surveillance enables the early identification of access dysfunction and prompt intervention.

Early detection of CKD, education of the patient and time to make choices are vital when considering treatment and options for a chronic illness.

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Questions/ Comments

We welcome questions and comments on the newsletter and the topics covered.

To make comments, please contact Claudia Scott, VP Marketing.

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