Health care provided in physician offices represents the most widely used segment of our U.S. system; however, the physician office setting has not yet received nearly the same amount of attention with regard to risk management and patient safety that hospitals and health care systems have. A recent study indicated that an estimated 75,000 hospital discharges annually were related to preventable adverse events that occurred in an ambulatory care setting.

These preventable events contribute not only to the rising costs of health care across our nation but to the medical liability crisis and tort reform. It is estimated that $55.6 billion is spent each year on the interrelated combination of medical liability litigation and defensive medicine.

In this environment, a culture of patient safety and risk mitigation must be created and emulated from the top down. With the financial implications and other costs associated with professional liability claims, it is important to understand what truly causes claims so that methods of prevention to reduce risk can be followed.

Empirical evidence suggests that the majority of malpractice claims are not the result of clinical negligence. Most malpractice claims are the result of non-clinical activities: communication lapses, poor documentation, unclear or non-existent informed-consent policies and procedures, as well as other system errors.

In addition, for every claim, there are likely many near-misses or events with less severe outcomes that can be related to process errors similar to those that resulted in malpractice claims. Understanding patterns of malpractice claims and related events can facilitate identification of high-risk areas and accelerate the development of programmatic interventions to improve patient safety and mitigate risk.

In 2006, the Connecticut Surgical Group, a group consisting of 45 physicians practicing in nine specialties, implemented a multi modality risk management education and practice change program that focused on enhancing the organization’s patient safety culture, and reducing the organization’s malpractice exposures and claims while improving the quality of patient care and overall patient safety.

Traditionally, risk management strategies are applied to hospital inpatient settings. With this in mind, at the onset of the program there were concerns regarding the overall receptiveness to the program, compliance and behavioral change.

Several years later, the results-driven program, initially deployed to surgeons only, has grown to include all mid-level providers, nurses, practice managers, office staffers and administration. The program continues to provide participants with a broader knowledge base in risk management, which has resulted in sustained practice changes, reduced malpractice exposures and an improved culture of patient safety.

Methods

The Connecticut Surgical Group (CSG) partnered with its insurance carrier Connecticut Health Systems Inc. and Medical Risk Management, LLC (MRM), a risk management education and consulting firm, to design and implement a risk management education and practice change program.

To ensure commitment to the program, a risk management work group was created to manage all aspects of the program, including prioritizing high-risk exposure target areas where improvements would provide the greatest value to the organization. In addition, it would govern the education curriculum development correlating to the target areas and manage all practice change initiatives.
To identify areas of risk exposure within CSG, a comprehensive review and analysis of past claims history, as well as national and regional claims experiences among similar surgical specialties, was performed.

The surgical specialties included:

- General surgery
- Breast services
- Bariatric surgery
- Urology
- Colorectal surgery
- Podiatry
- Plastic and reconstructive surgery
- Vascular surgery
- Thoracic surgery

Subsequent to the data analysis, comprehensive risk assessments were conducted at multiple CSG practice sites that also included confidential interviews with key employees in the organization.

The interviews provided valuable insight regarding the organization’s culture and practice behaviors that influenced the level of risk. The results of the risk analysis allowed stratification of our malpractice exposures into high-, medium-, and low-risk exposures.

The long-term risk management education and practice change initiatives were focused on eliminating high-risk exposure areas, including the informed consent process and after-hours telephone documentation.

To ensure compliance with after-hours telephone documentation, auditors reviewed the available e-mail call records of physicians to ensure that they were documenting their calls appropriately. The charts were reviewed to determine that the documentation included specific parameters such as the date/time of the call and date/time that the call was returned.

Upon the development of procedure-specific informed consent forms by the work group, practice locations were audited to ensure the correct use of the forms, as well as evidence of consent discussions documented in the corresponding patient charts.

Upon completion of the annual audit, recommendations were made to encourage/improve compliance to the initiatives, including provider coaching sessions and the development of additional educational materials such as work flows or tutorials.

Figure 1:

Risk Management Education Program Multi-Modality Structure illustrates the concept and timing of the multi modality risk management education program. The program consists of live risk management orientation sessions, CME-approved web-based modules, e-learning “risk alerts,” and live Risk Management Rounds® sessions. The web-based modules include detailed case review by practicing defense attorneys and physicians. Risk Management Rounds® are facilitated interactive sessions using specialty-specific malpractice cases. Actual redacted malpractice case studies are presented to stimulate discussions regarding risk exposures and mitigation strategies. Program evaluations are administered after the completion of the educational modality. The evaluations solicit feedback regarding participants’ interest level and overall receptiveness to subject material. Features of the program do change periodically, which keeps participants engaged and receptive to the curriculum, while constantly maintaining a focus on a culture of patient safety and relevant high-risk exposure areas.
A financial incentive was implemented to maximize compliance with the program. A significant malpractice insurance premium credit was made available to all providers who successfully completed the required educational components of the annual risk management program.

To measure the success of the program, data collected from evaluations, chart audits and claims information were analyzed. The results are categorized in terms of five performance metrics (see Table 1):

1. Attitudinal measures
2. Behavior modification
3. Claims reduction
4. Return on investment
5. Compliance

The evaluations conducted to assess participants’ attitudes toward the risk management program, as well as behavior modification, were designed to reflect interest and enjoyment of the program, as well as the likelihood of changing the approach to patient care. An audit process was instituted to monitor process improvement compliance, with an expectation of uniform adoption of practice change initiatives.

The informed consent process and after-hours telephone documentation were identified as CSG’s highest risk areas for patient safety and malpractice exposure. The risk management education program has contributed to significantly improved compliance with practice change initiatives. These improvements are illustrated in Figure 2.

Attitudinal measures are collected via program evaluation forms, with questions designed to measure the provider’s reaction to participation in the program. Table 2 demonstrates the response to representative questions that reflect the appeal of

Table 1: Metrics Utilized to Measure Success of the Risk Management Program

<table>
<thead>
<tr>
<th>Success metrics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Attitudinal measures</td>
<td>To maximize the educational impact, the risk management education must be interesting, specialty-specific and enjoyable for the participants.</td>
</tr>
<tr>
<td>2. Behavior modification</td>
<td>The risk management education and practice change must result in behavior modification of the participants. The effect of behavior modification is reduction of malpractice exposures and improved patient safety.</td>
</tr>
<tr>
<td>3. Claims reduction</td>
<td>The risk management program must result in a reduction of malpractice claims.</td>
</tr>
<tr>
<td>4. Return on investment</td>
<td>The risk management program must result in real economic savings to the group.</td>
</tr>
<tr>
<td>5. Compliance</td>
<td>To maximize the effectiveness of this multi-modality education, the group must strive to ensure 100 percent compliance.</td>
</tr>
</tbody>
</table>

Figure 2. CSG Risk Management Program Practice Change Audit Results, Percent of Providers Passing Audit 2009 – 2011

![Figure 2: CSG Risk Management Program Practice Change Audit Results, Percent of Providers Passing Audit 2009 – 2011](image_url)
the multi-modality program. These results have remained constant throughout the time period studied.

In contrast to the attitudinal measures, behavior modification measures are used to determine whether participants have a willingness to change or modify their behavior based upon the subject material they’ve learned.

Behavior modification measures are captured via the program evaluation forms. Table 3 illustrates a sample set of questions used to measure the participants’ behavior modification results.

These measures revealed that 100% percent of participating providers believe that there are risk management interventions that could be implemented in their office/practice that would mitigate some of the exposures outlined in the presentation they had attended. Additionally, the majority of participants indicated that they would change their practice as a result of what they had learned.

Although evaluation surveys are a strong indicator as to whether the participants will change the way they practice, claims frequency and valuation reporting are an objective means by which practice improvement initiatives can be evaluated.

As demonstrated in Figure 3, since its inception in 2006, the risk management program has resulted in an 86 percent reduction in claims frequency. This has directly led to a 36 percent decrease in premiums paid by CSG over the past two years, or more than $400,000 annually.

Finally, in 2010, 100 percent compliance in completing the risk management program was achieved by the providers of Connecticut Surgical Group, (see Table 4.)

**Discussion**

Surgeons should continually seek educational opportunities to maintain their competence and remain competitive, and participation in traditional continuing medical education (CME) is one of the means by which surgeons acquire their knowledge after residency training.9

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**Table 2: Attitudinal Measures – 2010 Risk Management Rounds Sessions**

<table>
<thead>
<tr>
<th>Attitudinal measure question</th>
<th>Result (n= number responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of presentation on a scale of 1 to 5 (highest)</td>
<td>4.3 (n=81)</td>
</tr>
<tr>
<td>Should this session be held annually?</td>
<td>95% (n=70)</td>
</tr>
<tr>
<td>Was this session worth your time?</td>
<td>100% (n=81)</td>
</tr>
</tbody>
</table>

**Table 3: Behavior Modification Measures – 2010 Risk Management Rounds Sessions**

<table>
<thead>
<tr>
<th>Behavior Modification Measure Question</th>
<th>Result (n= 81)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there risk management interventions that could be implemented in your office/practice that would mitigate some of the exposures outlined in the presentation?</td>
<td>Yes – 100%</td>
</tr>
<tr>
<td>Was the presentation relevant to your practice?</td>
<td>Somewhat 23%</td>
</tr>
<tr>
<td>Will you change your practice as a result of what you learned at the presentation?</td>
<td>Somewhat 42%</td>
</tr>
</tbody>
</table>
The CSG risk management education curriculum was developed to focus on specialty-specific high-exposure areas that were identified in the claims review and risk assessment process.

The risk management education program was designed to improve patient safety and reduce medical malpractice risks. As such, the curriculum addresses four of the six core competency standards established by the Accreditation Council for Graduate Medical Education (ACGME): patient care, practice-based learning and improvement, interpersonal and communication skills, and systems-based practice. The education was developed for surgeons, mid-level providers, nurses, and managers and provides a common risk management foundation and culture for the entire organization.

Assessment of provider performance traditionally is a daunting task, and receiving subjective information from physicians regarding practice changes they have made after participation in educational activities can be insufficient to assess the effect of the activities.9

Therefore, practice audits through medical record reviews are frequently used to assess physician performance and have been performed at CSG since 2008. This process allows for an objective measurement of change management and can be tracked over long periods to give continuous feedback to providers.9

The Emergency Care Research Institute suggests that organizations provide senior leaders with data and reports that depict a positive return on investment to effectively quantify risk management and patient safety efforts.11

Claims valuation reporting, incident reporting structure, annual professional liability insurance carrier reports and board reports have become an integral part of measuring and promoting the group’s success. The process of assessing, testing, measuring and improving is a continuous quality improvement activity that has become a part of everyone’s professional work.12

The impact of the program is quantifiable and demonstrates a return on investment that includes claims and premium reduction. As these metrics may be the most important and significant outcome measures of a successful risk management program, the dramatic improvements experienced to date by CSG are the strongest endorsement of the value that this educational program delivers.

Review of the literature suggests that small-group, case-based learning among physicians results in significant changes in professional practices. Clinicians tend to avoid CME-based learning activities involving topics in which they have little interest.10

Additionally, when emphasizing the application of new knowledge into practice, enabling methods such as educational materials that facilitate the application of the new knowledge, as well as reinforcing strategies and reminders are important for initiating and reinforcing physician practice changes.9

### Table 4: 2010 Risk Management Program Compliance

<table>
<thead>
<tr>
<th>Group</th>
<th>Risk management rounds sessions</th>
<th>Web-based module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providers</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Nursing</td>
<td>100%</td>
<td>94%</td>
</tr>
<tr>
<td>Management team</td>
<td>100%</td>
<td>90%</td>
</tr>
<tr>
<td>Administration</td>
<td>97%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Physicians are in a powerful position to implement risk management interventions that may contribute significantly to the reduction of health care expenditures through the reduction of preventable adverse events. This also presents the opportunity to deliver care more safely and efficiently.\textsuperscript{12}

As CSG expands to include additional specialties or new technology, our risk management program adjusts accordingly. We incorporate themes associated with new exposures (e.g., electronic health records, inter-provider communications) into our program.

We believe this program will continue to improve and reinforce a culture of patient safety, reduce malpractice exposures, improve the probability of prevailing in future malpractice cases, have a favorable impact on premium trends, and afford the group the opportunity to attract the best and brightest physicians.

### References