SAFE MD

Practical Applications and Approaches to Safe Psychiatric Practice

Committee on Patient Safety

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A Resource Document of the American Psychiatric Association's
Committee on Patient Safety

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Preface

The 1999 report from the Institute of Medicine, *To Err is Human*, provoked a series of examinations of patient safety by federal and state agencies, as well as other institutions and regulatory organizations (Stefl 2001). Besides promoting an increased emphasis on avoiding medical errors, these efforts have highlighted the importance of ethical concerns that are integral to the delivery of safe patient care (Hirschfeld 2001; Sharpe 2003). The improvement of medical practice and the education of physicians regarding patient safety have long been a concern (Billings 1987; Cruse 1999), but hitherto, practice guidelines in psychiatry have mainly focused on disease management. The American Psychiatric Association's Committee on Patient Safety was first convened in 2002. Since then it has been engaged in identifying and developing resources related to safety in psychiatric practice.

This booklet is an outgrowth of discussions at meetings of APA's Committee on Patient Safety. During those discussions, it became apparent to us that a resource was needed that would address the major components of delivering safe psychiatric care. We wanted this booklet to be practical, brief, and to the point but also evidence-based.

As part of its role in setting the standards for quality in health care, The Joint Commission (formerly called the Joint Commission on Accreditation of Healthcare Organizations or JCAHO) reviews and posts sentinel event statistics on its Web site. A review of 3,548 events that had occurred as of December 31, 2005, revealed the following frequencies of events that apply to psychiatric care: suicide 13.1%, medication error 10.1%, patient falls 5.3%, death or injury in restraints 3.9%, and elopement 1.9%. The frequency of events by setting ranged from 67.7% in general hospitals to 10.8% in psychiatric hospitals, 4.7% in behavioral health facilities, and 2.6% in ambulatory care settings. Most events are self-reported by the facility, and the numbers have increased steadily over recent years as a result of increased education, promotion of good practice, and regular scrutiny of hospitals.

Given the valuable data provided by The Joint Commission with input from a national perspective, APA's Committee on Patient Safety decided to emphasize six categories of risk-prone events in which additional attention to prevention is needed. The six categories, which are the focus of this booklet, are represented by the mnemonic SAFE MD:

Prevention of

- **S -** suicide
- **A -** aggressive behavior and promotion of the safe use of seclusion and restraints
- **F -** falls
- **E -** elopement
- **M -** complications when dealing with medical comorbidities
- **D -** drug/medication errors.

The purpose of this booklet is to provide guidance on practical applications and approaches to safe psychiatric practice. We strive to make this guidance useful to clinicians in inpatient as well as outpatient settings and to both solo practitioners and those working in larger systems of care. However, we do not intend this booklet to be an exhaustive source of information on safe practice or a substitute for a textbook. Each patient safety chapter opens with an actual example of unsafe psychiatric care, followed by a discussion of what went wrong and how to prevent such mistakes, and finally a table of "take-away points." We intend that the booklet's primary audience will be psychiatrists—both in clinical practice and in teaching facilities—and psychiatric residents.

Mistakes in psychiatric care occur despite the presence of good doctors practicing good medicine. Our goal is to help design better systems of care by using approaches similar to those used in the aviation industry, where analyses have revealed that faulty teamwork among crew members is a frequent causative factor in airline accidents. These approaches were first applied in medicine in the field of anesthesiology and have been generalized to other areas of medicine as well (Zeitlin 1989).

Numerous factors influence the activities of professionals who work together as a team to provide patient care. These factors include the professionals' level of training, personal characteristics, and attitudes, as well as the organizational culture, the physical and material resources that are available, and how critical the patient's condition happens to be.

A unifying concept of this booklet is a strong emphasis on moving away from a climate of blaming or shaming the individual and moving toward processes for building a safe system that yields safe practice. As Don Berwick, a leader in the patient safety movement, said "All systems are perfectly designed to produce the results they produce." A safe system is one that has interdependent redundant processes that are designed to ensure delivery of error-free care.

We thank all the members of the APA's Committee on Patient Safety for their contributions and thank especially the colleagues who assisted us in writing the chapters. Our hope is that *SAFE MD* will inspire all of us to deliver safer care to all of our patients.

Geetha Jayaram, M.D., M.B.A.,
Alfred Herzog, M.D., Co-editors

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Chapter 1

Root Cause Analysis in Psychiatric Care

Geetha Jayaram, M.D., M.B.A.
Alfred Herzog, M.D.

Case Example

A 40-year-old female outpatient with difficult-to-control narcolepsy developed agitated depression and was referred to a psychiatrist. The specialist who referred the patient told the psychiatrist, "I don't know how to help you or the patient. I can't even control her narcolepsy well." The psychiatrist talked with the patient and the referring specialist and discussed the need to add both an antidepressant and an antipsychotic to the patient's current medications. The new medications were to be added slowly and one at a time. The patient was asked to contact the psychiatrist each day for a brief check of her progress, which she did. With the patient's active participation, these goals were achieved over a 2-week period.

The key processes that helped in providing complete treatment for the patient were:

- Communication between the treating physicians
- Proper clinical management of medication needs
- Proper instruction of the patient, adequate follow-up visits, and daily checks by the psychiatrist

Building a Safe System of Care

Two approaches that may be used to design a safe system include 1) a proactive approach involving multidisciplinary teamwork using failure mode and effectiveness analysis and 2) a reactive approach involving learning from mistakes through root cause analysis (Figure 1).

In the proactive approach, one examines a process of care from referral to discharge of the patient and makes a list of all the individuals involved, the interactions among them, and the possibilities for error at each step. One then identifies a specific goal to be achieved, such as "all prescriptions will be legible" or "all insulin doses will be checked by two nurses on the team." Finally, one determines the safest and most practical way of achieving results by consensus. All strategies are followed and audited for decrease in error, and feedback is provided to all staff members who are involved.

In the reactive approach, one starts with the fact that an error has occurred and works backward to find a correctable cause. According to the "wedge theory" described by The Joint Commission, an error is the sharp end of the wedge, and the root cause is likely to be found in the design of the system that permitted the error to occur or that did not prevent the error from occurring; in other words, in the base or blunt edge of the wedge. By examining team strategies and processes for opportunities to enhance cohesive teamwork, we are likely to promote significant improvements proceeding from the sharp end of the wedge to the blunt edge of the wedge.

The likelihood that an individual will commit an error is far greater in systems that are poorly organized and that have weak procedures and regulations. A good staff member cannot combat a bad system. When incidents such as the Three Mile Island nuclear reactor accident and the Challenger space shuttle crash are examined, it is noted that accidents are generally the outcome of events set in motion by faulty system design that either induces errors or makes them difficult to detect (Leape et al. 1995). By asking the question "why" repeatedly, we are likely to find reasonable answers that point the way toward correctable weaknesses in the system we are examining.

Case Example

The case of a 32-year-old African American woman with three previous inpatient admissions and a prior diagnosis of personality disorder, iatrogenic opiate dependence, and factitious disorder was reviewed because she had used a sharp object to create a self-inflicted wound to her ostomy opening during a period of constant observation.

On the day of the event, the patient, who was in bed, requested her purse from the observer who was with her during constant observation. The observer provided the purse to the patient, and the patient placed the purse under the bed covers. The observer then saw the patient returning a shiny object to the purse. The observer quickly alerted the charge nurse. The nurses found that that patient had used a pair of scissors to cut herself at her ostomy site, causing considerable bleeding. The patient's wound was assessed, the house officer was notified, and her room was searched. Pressure was applied to the wound. Intravenous administration of normal saline solution was begun, and the surgical team was called to see the patient. The scissors had been wrapped in a package of underwear in the patient's purse.

Review of the Adverse Event: Findings of a Systems Analysis

In previous documentation, the patient was noted to be manipulative. She often split staff and refused to provide accurate information. She had a history of self-inflicted injury, pseudoseizures, and possible abuse of anticoagulants. She had initiated a lawsuit against another hospital in the area; she had left that hospital before a workup for rectal bleeding could be completed. During the current admission, the patient had screamed at and threatened to kill staff members. She demanded that she be allowed to leave against medical advice, but when she was told she could leave, she remained in her bed. She had threatened to bring in a lawyer. She had

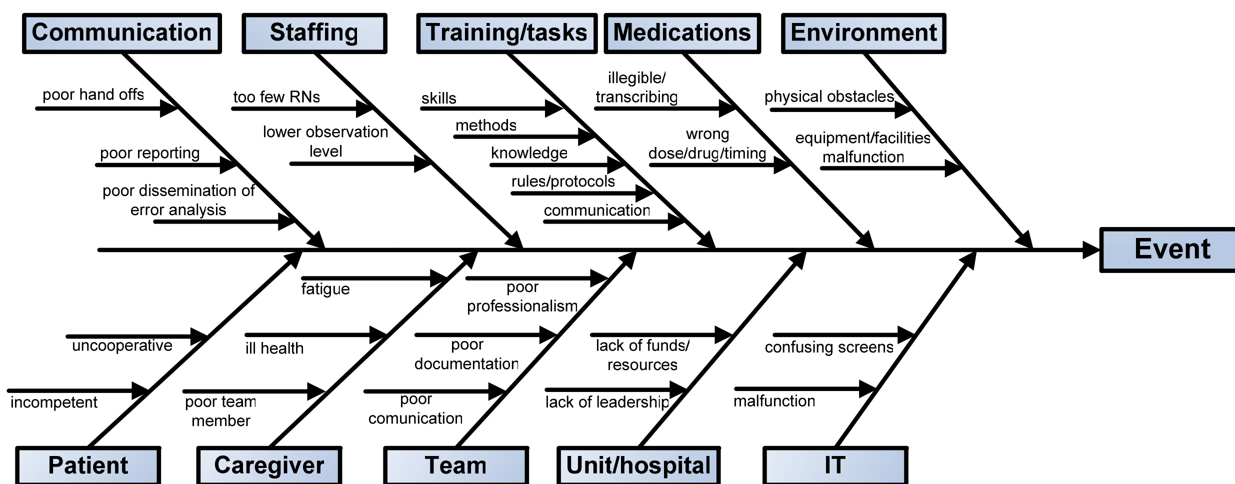

Figure 1. Root Cause Analysis: A Systems Perspective

placed a 72-hour notice, then withdrew the notice when she was told she could leave. She told staff that she had a "hospital addiction." There was a family history of addiction in her mother.

The staff team acted appropriately in several aspects of this case. For example, the patient's history had been obtained by calling for her records, and the history had been well reviewed. On the basis of the patient's history, the team had correctly placed her on close observation for her safety. The observer had been educated about the patient's manipulative behavior and had been alert to possible problems when the patient asked for her purse. The charge nurse was quickly informed about the patient's action. The physicians were called right away, and appropriate interventions were provided to help the patient.

The review identified other aspects of the case where improvement was needed. The nurse who was called first felt she needed more help with a bleeding patient and could have used some support. However, she did not ask for help in a timely manner. The resident did not call the attending physician quickly enough, an error frequently made by residents, although she was anxious about the patient's condition. The patient's belongings had not been thoroughly searched for items that she could use to harm herself. This is standard procedure in many hospitals.

Perspectives on Patient Safety

The Anesthesia Patient Safety Foundation was formed by the American Society of Anesthesiologists in 1984 with the goal of ensuring that no patient is harmed by the effects of anesthesia. The group proposed several initiatives, including sharing of the results of investigations into adverse events in order to promote better understanding of system changes that needed to occur. They also worked hard to develop anesthesia simulators to teach basic anesthesia skills and enhance crisis management. In addition, they began evaluating the effect of fatigue on acuity, the effects of monitoring intra-operative carbon monoxide, and other practice variables. In 1989, reductions in anesthesia-related mortality were reported (Zeitlin 1989).

Researchers are still trying to define the terminology, taxonomy, and common bases for understanding the kinds of errors that may occur in all medical fields. For example, James Reason (1990) proposed classifying errors by using the categories of mistakes, lapses, and slips, which are matched to the cognitive stages of planning, storage, and execution. Some suggestions for reducing error include reducing the reliance on memory, improving information access, creating error-proof protocols, standardizing tasks, and reducing the number of handoffs.

High-risk processes such as administering insulin or electrolytes must be monitored and subjected to an evaluation (Hellman 2004). A high-risk process is one that has a high probability of error, occurs fairly frequently, and could result in patient morbidity and mortality. In psychiatry, processes involving the care of suicidal patients, those who are likely to fall or elope, those with medical comorbidities, and those who are potentially violent must come under special scrutiny.

Moving the Safety Agenda Forward

With rapid advances in the medical field and the constantly increasing need for documentation, as well as proneness for error in prescribing for patients who need numerous medications, it is critically important for practitioners to have access to a system of electronic patient records, computerized entry for physicians' orders, and personal digital assistants (PDAs). These electronic resources will increase both efficiency and effectiveness. Their slow rate of acceptance is related to economic and psychological barriers that must be addressed. The Patient Safety Committee of the American Psychiatric Association recommends that these changes be accomplished incrementally by the

use of computerized programs or on a PDA to electronic personal records, to computerized order entry.

Improvements in graphing patients' laboratory results—for example, posting panic values in red—are advancing standards of care. However, software programs never overrule physicians' judgment.

Finally, educating patients and their family members about patient safety and involving them in the biopsychosocial model will make care more patient-centered.

Conclusions

The concept of patient safety is clearly important but simultaneously may seem amorphous and overwhelming. The Patient Safety Committee of the American Psychiatric Association has worked to outline the basic concepts and a practical approach to patient safety. In the chapters that follow, the authors provide both useful and practical guides to the practice of patient safety in inpatient and outpatient settings. Good care has always been emphasized in psychiatry, but safe practice requires an active approach and conscious application to systems of care.

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Chapter 2

Suicide
Safe Passage through Suicide Risk: Navigating the Failure Modes

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Case Example

The Athena General Hospital psychiatric unit just had peer review, focusing on patients admitted after a suicide attempt. Peer review showed that suicide risk assessment was documented 90% of the time as “Patient denies suicidal ideation” or as “∅ SI.” Mitigation of suicide risk factors and support of risk reduction factors occurred in 12% of the cases, and 6% of the patients had documented crisis plans targeting prevention of relapse of suicidal behavior or prevention of suicide risk factors.

Mr. Glaucus, a 44-year-old, recently unemployed fisherman, came to his regularly scheduled 15-minute medication-check appointment with his outpatient psychiatrist. Mr. Glaucus reported that he had separated from his girlfriend the previous day. He reported that he had 1 hour of sleep, and he was noticeably agitated and has alcohol on his breath. He said, “There is no reason to live,” and acknowledged a plan to kill himself by driving into a tree, poisoning himself, or hanging himself in his garage at home. He agreed to assessment in the emergency department of Athena General Hospital 2 miles away. His family agreed to meet him there.

The emergency department was busy when Mr. Glaucus arrived. The employee who was called to sit with the patient had been hired only 5 weeks ago, and she did not understand why she was asked to provide one-to-one observation for Mr. Glaucus. After 8 hours, Mr. Glaucus was admitted to a psychiatric unit at 20:50. He was placed in a private room. He denied suicidal ideation when asked by the registered nurse on the evening shift and by the admitting physician at 22:00. In an audiotaped nursing change-of-shift report, Mr. Glaucus was noted to have poor sleep with escalating agitation, tremulousness, and nausea. The patient received a telephone call from his girlfriend the next morning. After the call, nursing staff noticed that he was crying and that his pacing was worsening. The nurse let the resident who was in the chart room know about the nursing staff’s observations. There was no formal morning report. At 08:55 on the nursing 15-minute check, Mr. Glaucus was found dead. Using his own bed sheets, he had killed himself by hanging.

The resident and attending psychiatrists were devastated; as were the nursing staff, other colleagues, and the patient’s family. The clinicians asked themselves, “What did I miss? Will I be sued? Could I have prevented this? Does this mean I am not a good psychiatrist?”

Suicide is a high-risk, relatively low-frequency event that most psychiatrists encounter at some point in their practices but yet are unable to predict (Scott and Resnick 2006). Approximately 30,000 suicides occur per year in the United States (The Joint Commission 2008). Five percent to 6% of suicides occur in hospitals (Scott and Resnick 2006); thus a total of nearly 1,800 inpatient suicides occur each year. Suicide is the number-one Joint Commission sentinel event in our nation (Scott and Resnick 2006). A sentinel event is defined as an event that results in an unanticipated death or major permanent loss of function that is not related to the natural course of the patient’s illness or underlying condition. Suicide as a hospital sentinel event is more common than operative and postoperative complications, more common than wrong-site surgeries, and more common than medication errors. Suicide is the primary cause of psychiatric malpractice settlements and verdicts (Scott and Resnick 2006).

However, with the rate of suicide so low and jeopardy so high, psychiatrists and organizations cannot expect to wait for suicides or lawsuits to occur to realize opportunities for change. Mistakes occur, even within the practices of good psychiatrists working in good systems of care. Barriers to prevention of suicide exist for individual clinicians within themselves and within the treatment team, organization, and mental health system where they practice. These factors create failure modes that affect suicide risk assessment and risk reduction.

Barriers to Suicide Risk Assessment and Reduction

Failure modes can be extrapolated from common allegations of negligence associated with patients’ suicide, as summarized in Table 1.

System failure modes can be organized across a spectrum consisting of several areas ranging from the quality of suicide risk assessment to the appropriateness of training and orientation. In each of the eight areas, subsequent solutions can be achieved within the scope of the individual clinician, the treatment team, the organization, and the entire mental health system. Strategies to navigate the barriers to effective suicide risk assessment and risk reduction include preparing the organization to implement new practices and guidelines for suicide prevention, and raising awareness of staff to do so. (Risk Management Foundation of Harvard Medical Institutions 1996; Joint Commission on Accreditation of Healthcare Organizations 2000).

<table>
<tr><th colspan="2">Table 1. Common Allegations of Treaters’ Negligence Associated with Patient Suicides</th></tr>
<tr><td>OUTPATIENT SUICIDE</td><td>INPATIENT SUICIDE</td></tr>
<tr><td rowspan="3">The treater(s) failed to …
• Evaluate properly the need for psychopharmacological intervention or provide suitable pharmacotherapy
• Implement hospitalization
• Maintain an appropriate clinician-patient relationship
• Obtain supervision and consultation
• Evaluate for suicide risk at intake and at management transitions
• Secure records of prior treatment or perform adequate history taking
• Conduct a mental status examination
• Diagnose a patient’s symptoms appropriately
• Establish a formal treatment plan
• Safeguard the outpatient environment
• Document adequately clinical judgments, rationales, and observations</td><td>The treater(s) failed to …
• Diagnose or foresee the suicide
• Control, supervise, or restrain
• Evaluate adequately suicidal intent
• Provide appropriate pharmacotherapy
• Provide adequate monitoring
• Gather an adequate history
• Remove potentially harmful items such as belts or shoelaces
• Provide a safe, secure environment</td></tr>
<tr><td>SUICIDE IN ALL SETTINGS</td></tr>
<tr><td>The treater(s) failed to …
• Provide proper assessment and management in high-volume patient settings
• Construct a comprehensive treatment plan
• Perform and record a comprehensive suicide risk assessment
• Obtain past treatment records
• Make a rational diagnosis on the basis of the history and evaluation</td></tr>
<tr><td colspan="2">Source: Scott and Resnick 2006; Simon 2006.</td></tr>
</table>

The assessment of suicide risk always begins with the patient and a comprehensive psychiatric evaluation. This assessment must take into consideration various aspects of the patient’s presentation: the life story, the particular disposition and constitutional dimensions of the patient, completed suicides in the family, prior attempts made, depth of depression including anhedonia and melancholia, preceding events that affected the patient’s life and mental state, behaviors that complicate the picture such as alcohol intoxication and drug abuse, and delirium or cognitive decline or limitations. Risk factors are identified based on review of the literature as well as on the clinician’s understanding of the characteristics of the individual in question. Implementing evidence-based practices that have been shown to improve suicide prevention is one suggestion to modify systems of care (American Psychiatric Association 2003; Shea 2002).

Beyond assessing the patient, the clinician must communicate concerns to family members and other staff members who provide care, assess the environment for potential danger such as access to firearms, and note possible triggers that could worsen the patient’s mood or anxiety (Mays 2004). Documentation of the assessment in the medical record, with repeated notes on progress, is recommended. If a patient does not seem to make satisfactory progress, a consultation is warranted. For inpatients, documentation of privilege levels and notation of mental status at points of transition are equally important. Levels of observation must match the concern about the patient. For example, 15-minute checks are insufficient for a suicidal patient. Close observation at all times or a higher level of observation, such as one-to-one observation, may be required until the danger of self-harm has passed.

Issues of transference and countertransference must be examined for both inpatients and outpatients. Countertransference present in a negative system of care may stand in the way of accurate assessment of suicide risk. Treatment teams must regularly review hospital policies and procedures to assure application and compliance. Training for new residents and nursing staff must be ongoing.

Is “∅ SI” Good Enough As a Suicide Risk Assessment?

In Busch and Fawcett’s study of patients who committed suicide in an inpatient setting or immediately after discharge, 78% of patients denied suicidal ideation at their last communication. As Figure 1 shows, the second greatest clinical root cause of inpatient suicide is a failure in clinical assessment.

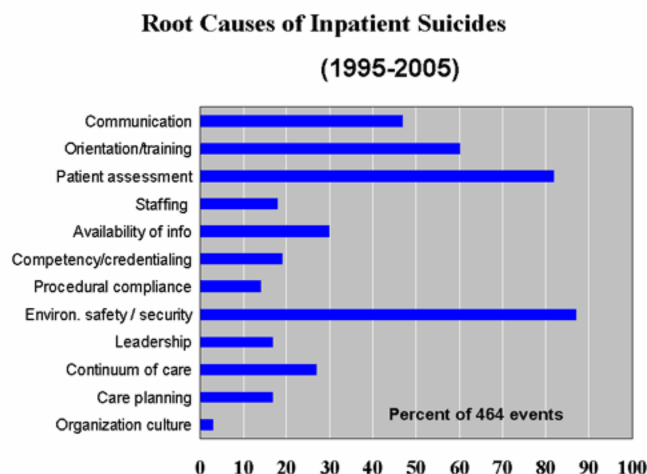

Figure 1. Root Causes of Inpatient Suicides.
Source: The Joint Commission, © 2008.
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Although clinicians are not able to predict suicide with accuracy, assessment of suicide risk is required in the current psychiatric standard of care (Simon 2006). The suicide risk assessment is part of a five-step process to address potential suicidal behavior. The remaining steps in the process are suicide risk formulation, safety management and treatment plan, crisis plan, and re-assessment of suicide risk.

Suicide Risk Assessment

The formation of a therapeutic relationship with the patient provides the foundation for a complete interview. In addition to the patient interview, a review of all possible information resources, ranging from contact with family and care providers to review of records, is essential. Failure to pursue review of information resources thoroughly has been grounds for successful malpractice claims. On the basis of the patient interview and information from other resources, the clinician should identify the extent of suicidality and identify dynamic and static risk factors and risk reduction factors.

Identification of individual risk factors and protective factors is an important part of the assessment. In more restrictive settings, the risk of elopement should be assessed simultaneously, given that successful suicides have been associated with elopement. If the patient can be served in a less restrictive setting, assessment of the patient's capacity to implement a treatment plan will be important. A brief outline of selected risk factors and risk reduction factors is presented in Table 2.

Table 2. Static and Dynamic Risk Factors for Suicide and Suicide Risk Reduction Factors

STATIC RISK FACTORS	DYNAMIC RISK FACTORS	RISK REDUCTION FACTORS
• History of suicide attempts • Male gender • Age (older adults, young adults) • White race • Widowed, divorced, single (especially males) • History of family violence or physical or sexual abuse • Loss issues (loss of vocation, relationship, or health; presence of legal problems) • Family history of suicide • Physical illness	• Suicidal intent • Severe agitation, severe anxiety • Hopelessness • Impulsivity • Aggression, including violence toward others • Thought constriction (tunnel vision) • Access to firearms • Bipolar disorder • Major depression (anhedonia/hopelessness, insomnia, recent sense of peace or well-being, comorbid alcohol or other substance use disorder) • Schizophrenia (age less than 40 years, more than high school education, command hallucinations) • Alcohol or other substance use disorder, intoxication	• Pregnancy • Responsibility for children younger than age 18 years • Sense of responsibility to family • Organized religion • Employed • Living with another person, especially a relative • Positive social support • Positive therapeutic relationship

One strategy for recalling risk factors is to remember "the dozen A's of suicide risk," presented in Table 3.

Table 3. The Dozen A's of Suicide Risk
• Attempts made—recent or earlier • Age • Alliance with the therapist • Adherence to treatment • Alcohol and drug abuse • Anxiety/Agitation • Anhedonia • Affective component (unstable mood, depression) • Availability of weapons • Adverse life events (e.g., trauma, new diagnosis of cancer, chronic pain, medical illness) • Auditory hallucinations commanding the patient to harm self • Absence of protective factors such as responsibility for children, other loved ones

More complete listings of risk factors and risk reduction factors, as well as discussion of interviewing approaches to elicit extent of suicidality and risk factors, can be found in the literature (American Psychiatric Association 2003; Jacobs 1999; Joint Commission on Accreditation of Healthcare Organizations 2000; Magellan Behavioral Health 2006; Mays 2004; Risk Management Foundation of Harvard Medical Institutions 1996; Shea 2002; Simon 2004). The literature also includes resources for suicide risk assessment when working with special populations, including children and adolescents (American Academy of Child and Adolescent Psychiatry 2001; Gould et al. 2003) and older adults (Conwell and Heisel 2006), when working in jails and prisons (American Correctional Association 2003, 2004; Hayes 1995), and when working with various ethnic groups (Wender et al. 2006).

Formulation

Based on the suicide risk assessment, the psychiatrist formulates the information into a coherent, clinically-based assessment, including estimation of risk. Although suicide assessment measures may be used as an adjunct to the clinical interview, no formal suicide risk assessment measure used alone currently has predictive value for suicide in individual patients (American Psychiatric Association 2003). The artful and skilled formulation by the clinician is the key. Key elements of the suicide risk formulation are discussed by Shea (2002).

Safety Management and Treatment Plan

The suicide risk assessment and formulation will drive the treatment plan. Determination of level of care and decisions about use of one-to-one suicide precautions will be based on estimation of risk. Treatment plans should address mitigation of dynamic risk factors and strengthening of the risk reduction factors. Biologic therapies (American Psychiatric Association 2003; Kim et al. 2006) and psychosocial treatments (American Psychiatric Association 2003; Goldsmith et al. 2002), including cognitive therapy (Brown et al. 2005), have been shown to decrease suicide risk.

Crisis Plan

In community-based psychiatric care, 11% of persons who completed suicide made contact within a year before the suicide; 4% within a day of contact (Pirkis and Burgess 1998). About 5 percent of suicides occur during hospitalization (Crammer 1984; Robins et al. 1959). Development and implementation of a crisis plan can provide an indispensable safety net and be a valuable operational component of recovery. The crisis plan is used to outline a relapse prevention approach with the patient and other persons in the system. The plan includes strategies for monitoring for and preventing antecedents of relapse and for implementing response to relapse. Table 4 summarizes key elements of a crisis plan.

Table 4. Elements of a Crisis Plan

- Address the specific management of risk factors that might significantly increase the likelihood of suicidality during a weekend pass or after discharge (e.g., relapse of mental illness, discontinuation of medication, noncompliance, alcohol/substance relapse, loss issues)
- Outline response by patient, family, outpatient system if there is a crisis
- Specify procedures for access to emergency services(e.g., telephone numbers to call if there is a crisis)
- Assess the patient's capacity and ability to collaborate with caregivers
- Plan for family members'/significant others' involvement and education
- Spell out methods for transmission of information to outpatient systems and to family members/significant others as applicable
- Identify treatment needs
- Plan for follow-up appointments
- Limit supply of medications to nonlethal amount
- Recommend removal of all firearms/ammunition from home/environment

Issues addressed in the crisis plan can be discussed with the patient as part of the wellness/recovery action plan or be operationalized as part of a psychiatric advanced directive.

Suicide Risk Reassessment

Reassessment of suicide risk should occur at the time of high-risk transitions for the patient. Identification of high-risk transitions should be individualized based on the patient's clinical situation (e.g., the period following a stressful telephone call, a significant loss, and occurrences reported in the literature to be associated with high risk (see Table 2), such as step-down from intense observation, transfer between units, and the immediate post-discharge period. The most common locations for suicide are bathrooms, followed by the individual's room (Joint Commission on Accreditation of Healthcare Organizations 2000).

Conclusions

Although research evidence has shown that suicide cannot be predicted (American Psychiatric Association 2003), assessment and reduction of suicide risk are attainable goals. Risks for certain categories of medically and psychiatrically ill patients are well researched and documented. With the right skill, teamwork, and system support, the dangerous waters of suicide risk can be navigated to minimize the risk for the patient and physician. The case of Mr. Glaucus presented at the beginning of this chapter might have had a different outcome if the failure modes for suicide had been addressed. Awareness of the barriers to effective suicide assessment and risk reduction is the first step toward problem solving. Information on evidence-based approaches and best practices is available from numerous sources, including the academic work of Keith

Hawton (2002, 2005) and Robert Simon (2006) and resources provided by the American Psychiatric Association, including its practice guidelines. Clinicians can use these resources to enhance their confidence in suicide risk assessment and reduction, thereby improving patient safety.

Take-Away Points

- Document clinical opinion, assessment, and safety management, treatment, and crisis plans.
- Suicide prediction is not the standard; suicide risk assessment is the standard.
- Suicide risk assessment entails
  a. eliciting information about the patient's suicidality, risk factors, and risk reduction factors, and
  b. pursuing and reviewing all available sources of information about the patient's risk, including medical records, consultation with colleagues, and interviews with the patient's family.
- Formulation is
  a. balancing of clinical detail, including information from interviews with the patient, record review, and other resources for identifying the patient's suicide risk factors and protective factors.
  b. systematic and disciplined.
  c. a reasoned and inductive process that drives treatment planning.
  d. not a prediction, guess, or exercise of intuition.
- Estimate risk for the near future.
- Build a therapeutic alliance with the patient and family, supporting hope and recovery.
- Maintain awareness of countertransference issues and manage them if they arise.
- Do not rely on safety/suicide contracts.
- Consider seeking consultations and second opinions.
- Management and treatment is driven by the suicide risk assessment, targeting a decrease in dynamic suicide risk factors and a strengthening of dynamic risk reduction factors.
- Reassess suicide risk, especially at high-risk times, such as admission, discontinuation of one-to-one observation, times of psychosocial change for the patient, periods immediately before weekend passes and discharge, termination of treatment, and other transition points.
- Develop a relapse prevention plan to help mitigate reemergence of suicide risk.
- Support teamwork and open communication with colleagues by establishing a context of mutual respect and structured procedures for transmitting information.
- Work in a setting with appropriate resources and staffing, including safe and secure environments of care.

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Chapter 3

Aggression
Reducing Risk in the Management of Aggressive Patients

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Case Example

Mr. K, a patient with chronic paranoid schizophrenia, was admitted to the hospital after an assault on a treatment staff worker in a group home. He was well known to inpatient staff as a chronically assaultive patient. Two days after admission, he attacked an elderly patient without provocation and was secluded for protection of others. After 1 hour in seclusion, he became calm and was released. During the debriefing, he said that he could not guarantee that he would not attack others if "they keep messing with me." After the debriefing, the staff psychiatrist ordered two-point restraints for Mr. K. One hour later, the hospital fire alarm sounded, and it was found that Mr. K had started a fire in the men's bathroom while trying to burn off the restraints.

Risks Associated With Seclusion and Restraint of Aggressive Patients

Restraint-related injuries and deaths ranked seventh in the types of events reported to The Joint Commission from 1995 through 2005 (Joint Commission on Accreditation of Healthcare Organizations, 2006). According to November 1998 data on Joint Commission sentinel events, the leading cause of seclusion and restraint injury/death was asphyxiation (40%), followed by strangulation, cardiac arrest, and fire (Joint Commission on Accreditation of Healthcare Organizations, 1998). Strategies for reducing the risks associated with each of these causes are listed in Table 1.

Reducing Safety Risks Associated With Seclusion and Restraint

One of the best ways to address the safety risks of seclusion and restraint is to focus on decreasing its use. An example of how to plan and implement avoidance of seclusion is provided by Taylor et al. (2005).

Reducing the use of seclusion and restraint involves conscious effort by the multidisciplinary staff providing inpatient care. Progress toward this goal can be accomplished by implementing a three-step plan:

1. Establishing an organizational culture that focuses on alternatives to the use of seclusion and restraint is the key. Hospital leaders should involve all staff in multidisciplinary training in which the goals are explained and should ensure that all staff members understand the mission and strive toward implementing the plan (National Executive Training Institute, 2005; Medical Directors Council, National Association of State Mental Health Program Directors, 2001, 2002).
2. Training should not be limited to nurses and physicians. All staff should be trained to recognize the importance of participating in the cultural change. Educating staff about a broad range of alternative clinical crisis intervention strategies is essential. Staff should be retrained by using a competency-based educational model that helps staff understand the cycle of violence, recognize target points for intervention, and become aware of their own triggers for aggression (American Psychiatric Association, American Psychiatric Nurses Association, National Association of Psychiatric Health Systems 2003).
3. Practices such as collecting data on use of seclusion and restraint, examining the data for trends, observing successes and failures and learning from both, and debriefing after each episode of seclusion serve to teach staff about ways to reduce use of seclusion and restraint.

Table 1. Causes of Injury/Death Related to Seclusion and Restraint and Strategies to Reduce Risks

Asphyxiation
- Avoid restraining a patient in the prone position to prevent suffocation.
- Watch for aspiration if the patient is restrained in the supine position.
- Be aware that patients with deformities are at higher risk for improper application of restraints that result in asphyxiation.
- Avoid placing objects near the patient's face.
- Avoid obstruction of the airway.

Strangulation
- Watch for strangulation risks with geriatric patients in vest restraints.
- Avoid unprotected side rails.
- Be aware that patients with deformities are at higher risk for improper application of restraints that result in strangulation.

Cardiac Arrest
- Assess the patient's medical status.
- Remain alert for signs of cardiac arrest.

Fire
- Be aware that patients who smoke, especially male patients, are at high risk for fire deaths.
- Search the patient and patient's room for hidden items before use of seclusion or restraint.
- Prevent access to lighters and matches.
- Initiate continuous monitoring.

Source: Joint Commission on Accreditation of Healthcare Organizations, 1998.

At the time of admission, patients' risk of aggressive behavior should be assessed and conditions that may increase the risk of using seclusion and restraint should be noted. Patient factors that may increase risk of aggression are summarized in Table 2. Conditions that increase the risk of injury during seclusion and restraint are summarized in Table 3. The patient's input should be solicited to identify preferred alternatives to be used if and when behavioral interventions are needed. Admitting staff should determine whether the patient has an advance behavioral directive. Staff must be trained in safe methods of seclusion and restraint. Seclusion and restraint forms developed with cues to prompt for

necessary interventions aid staff recall of the required interventions and monitoring.

Table 2. Patient Characteristics That May Increase Risk of Aggression
• History of past dangerous behavior • Male gender • Adolescent or young adult • Intoxicated with alcohol and/or drugs • Deprived socioeconomic background • Limited education and/or low intelligence • Acute situational factors such as job loss, loss of significant other • Profane and verbally abusive language • Angry or labile mood

Table 3. Factors Increasing Risk of Injury/Death Related to Seclusion or Restraint	
• Pregnancy • Asthma • Head or spinal injury • History of cardiac arrest • History of fracture	• History of surgery • Seizure disorder • History of abuse • History of smoking
Source: American Psychiatric Association, American Psychiatric Nurses Association, National Association of Psychiatric Health Systems 2003.	

Medication and milieu management for aggressive patients offers safer alternatives to the use of seclusion and restraint. Effective medication management includes thorough diagnostic assessment and treatment of underlying medical and psychiatric conditions. Staff should be aware of current recommendations for the use of medications to treat aggressive behavior. The use of p.r.n. medication should be reviewed to allow adjustment of prescribed treatment as needed. Medications that are clinically appropriate and indicated in treating the patient should be used, and the patient's freedom of movement should never be restrained by use of medications that render the patient semi-stuporous.

Milieu management to reduce the use of seclusion and restraint includes staffing the unit according to the acuity of patients' conditions, maintaining an adequate number and mix of staff, and screening patients for risk factors that may increase the likelihood of impulsive behavior (see Table 2). Staff should be aware of environmental triggers, including situations in which patients are clustered together without structured activities (for example, while waiting for meals). Incidents of aggressive behavior should be reviewed for patterns involving specific locations or times.

In an environment with frequent assaults, patients may be concerned about their safety and exposed to unacceptable examples of ways to express anger. A review of rules and interventions from the patients' perspective may be helpful, both with individual patients in debriefing sessions after seclusion and restraint and with groups of patients at other times. Tips for working safely with potentially dangerous patients in the treatment milieu are presented in Table 4.

Table 4. Tips for Working Safely with Potentially Dangerous Patients
• Remain alert. • Use intuition/clinical sense. • Have available highly accessible exits. • Maintain a way to call for help (phone, whistle, panic button). • Use heavy furniture that is difficult to move. • Have at hand light-weight objects that can be used as shields (cushions). • Keep the environment free of objects that can be used as weapons (e.g., heavy or sharp objects). • Be aware of availability of security personnel. • Consider that individuals may carry weapons. • Acknowledge the patient's fears or helplessness. • Attend to clinical concerns without delay and help the patient find solutions to a crisis by breaking it down into manageable problems. • If a patient appears out of control, emphasize the consequences of violence. • Consider prosecution if a patient is assaultive secondary to personality disorder and/or substance abuse.
Source: Rosner, 2003.

Root Cause Analysis of the Restraint-Related Incident Involving Mr. K

Mr. K was saved from incurring a significant fire-related injury when staff responded quickly to the fire alarm. However, in a review of the incident using the root cause analysis model described in Chapter 1, three major areas in which staff performance could be improved were identified.

First, staff members were not aware of the sentinel event alerts regarding increased risk of fire-related injuries related to seclusion and restraint of male patients who smoke. This failure was related to systems issues involving communication and training.

Second, staff members failed to follow the protocol for continuous observation of the patient while he was in restraints and failed to monitor the environment for matches. These findings highlighted the need for attention to systems issues involving treatment tasks, the treatment team, and the treatment environment.

Third, although the treatment team was aware that Mr. K was uncooperative and paranoid, they failed to develop medication and milieu management strategies that could supplement or replace physical management if Mr. K became aggressive. Proactive attention to patient and team factors could have reduced the risks associated with seclusion and restraint.

Take-Away Points

- Seclusion and restraint are high-risk activities
- Staff providing continuous observation during seclusion and restraint should be alert for:
  a. Asphyxiation
  b. Strangulation
  c. Cardiac arrest
  d. Fire
- Education, teamwork, and early intervention help reduce use of seclusion and restraint.
- Medication and milieu management are preferred to physical management.
- Patients should be involved in formulating alternative behavior interventions.

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Chapter 4

Falls
Preventing Patient Falls in Clinical Settings

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Case Example

Ms. S, a 72-year-old woman, was being treated for depression in a geriatric partial hospitalization program. She entered and exited the partial hospital program through a revolving door that was activated as soon as one entered the doorway. She was mobile but walked slowly. She typically wore sandals. She had adult-onset diabetes mellitus, which was well controlled with diet. Her medications included metformin (Glucophage), 300 mg/day of bupropion, 0.5 mg/day of haloperidol, 1 mg of lorazepam at bedtime, and 50 mg of trazadone at bedtime.

At 8 AM, she appeared to be confused and unsteady while entering the revolving door. One side of the revolving door hit her on her right side, causing her to fall. She reported pain in the area of her right hip. Subsequent medical evaluation revealed a fracture of the right hip. Following surgical repair and 4 weeks of rehabilitation, she made a full recovery. During her hospital stay, Ms. S missed her grandson's college graduation and was unable to attend a family reunion. Her hospital bill was $60,000.

"Slips and falls" is an important category for risk management. In this chapter, we define risk factors for falling and suggest methods for assessing patients for risk of falls and for reducing that risk. Slips and falls may be most commonly thought of in the context of workplace injuries (Government of Western Australia, Department of Consumer and Employment Protection 2004) or homeowner insurance coverage. These injuries are also a concern in clinic, partial hospital, and hospital settings. According to the National Safety Council (2002), one in five visitors to a hospital emergency room is there because of a fall. The Joint Commission (formerly the Joint Commission on Accreditation of Healthcare Organizations) included decreasing patient falls in its 2007 patient safety goals (Joint Commission 2006).

In reviewing data on fatalities resulting from falls, the United States Consumer Products Safety Commission noted that more people have died as a result of tripping on a level surface than in mountain climbing (National Safety Council 2002). Although falls are an issue for persons of all ages, we focus in this chapter on the serious problem of falls among older adults.

Gillespie et al. (2003) noted that about 30% of people older than age 65 years and living in the community fall each year and that the percentage is higher in institutions. According to Tinetti (2003), about one-third of patients older than age 65 years fall each year, and one-half of this group have recurrent falls. Approximately one in 10 falls result in a serious injury such as a hip fracture, subdural hematoma, other fractures, or serious soft-tissue injuries (Luukinen et al. 1995; Nevitt et al. 1991).

Independent risk factors for falls include slow walking speed, a recent change in living conditions, decreased quadriceps strength, a decline in the ability to perform activities of daily living, and diminished visual acuity (Tinetti et al. 1995). Although our emphasis in this chapter in on standard medical causes for falls, the psychiatrist should also be aware that some patients may use pseudo-falls and malingered falls as a mode of attention seeking, expression of hostility, or demand for compensation.

Risk Factors for Falls

Information derived from previous research, coupled with systematic analysis, can be used to minimize risk of falls for patients in a variety of care settings. Risk factors that have been associated with falls are listed in Table 1.

Table 1. Risk Factors Associated with Falls
Stronger Correlation
• Delirium, dementia, or cognitive decline
• Complications of medical illness (i.e., Parkinson disease or muscle weakness)
• Self-destructive behavior and "accident proneness"
• Medication use
o Antidepressants
o Neuroleptics
o Long-acting benzodiazepines
o Taking 3 or more medications of any kind
Weaker Correlation
• Medication use
o Anticonvulsants
o Short-acting benzodiazepines
o Short-acting hypnotics
o Type 1A antiarrhythmics
o Diuretics
• Use of alcohol
Source: Gillespie et al. 2003; Leipzig et al. 1999; Rao 2005.

Identifying the Likely Causes of Ms. S's Fall

The root cause analysis fishbone diagram shown in Chapter 1 provides a useful analysis tool for assessing Ms. S's fall. The systems review is based on the idea that an accident usually occurs because of a variety of influencing factors. The review team identified significant risks in four areas: human factors/diagnostic issues, communication, medication, and environmental factors.

Human Factors/Diagnostic Issues

Ms. S's pleasant demeanor masked the fact that she was having cognitive problems and that she was slow in processing novel situations such as the automatic door. Her current care team decided that she had an "executive dysfunction" (Goldberg 2001) related to subcortical white matter changes that were identified with magnetic resonance imaging and further collaborative history.

Communication Issues

Ms. S had reported to her primary care physician that she had lost the sensation to touch in her feet and lower legs, and the physician diagnosed peripheral neuropathy, likely secondary to diabetes. She compensated for the decrease in touch sensation by walking more slowly "and watching her step." Her prior psychiatrist had been concerned that she had a minor cognitive disorder based on cognitive slowing. However, neither clinician had clearly documented these observations so that the information could be used by the current care team.

Medication issues

As identified in Table 1, use of medication is an important risk factor. Campbell (1991) pointed out that the evidence is strongest for antidepressants, neuroleptics, and long-acting benzodiazepines and less convincing for short-acting benzodiazepines and hypnotics. In terms of risk for falls, the newer atypical antispychotics provided no advantage over the older typical antipsychotics (Hienle et al. 2005). Older patients taking three or more medications of any kind are at increased risk of recurrent falls. One of the most effective strategies for reducing falls is to withdraw medications, but this strategy may be difficult to implement because of the potential for deterioration of the underlying condition (Campbell et al. 1999). The nighttime dosage of both a longer-acting benzodiazepine and trazodone were thought to have contributed to Ms. S's unsteadiness. Revision of her medications was necessary.

Environmental factors

A review of environmental factors quickly revealed that a self-activating revolving door is a high-risk doorway in any health care setting. The self-activating door was particularly unsuited for older adults who walk slowly or have balance difficulties. Ms. S's ill-fitting sandals only compounded her difficulty in managing the automatic door. The team recommended that a different type of door should be installed.

Decreasing the Risk of Future Patient Falls

The team reviewed the key fall prevention measures listed in Table 2. Each of the areas of Ms. S's fall risks were reviewed and modified.

Table 2. Key Fall Prevention Measures
Be Alert to Specific Patient Factors
• Mental status changes
• History of drug or alcohol abuse
• History of fractures and injuries
• Current weakness or ataxia
• Impaired vision
• Arrhythmia
Modify Environmental Risk Factors (Rao 2005)
• Proper-length clothing and appropriate shoes
• Use of handrails
• Use of appropriate assistive devices
• Good lighting
• Hip protectors (foam pads fitted into specially designed underwear) (Mulrow et al. 1994)
Modify Medication Usage
• Use minimally necessary dose and number of medications
• Be especially aware if risks associated with antidepressants/neuroleptics
• Try to avoid, whenever possible, use of three or more medications in same patient
Improve Physical Functioning
• Muscle strengthening/physical therapy programs
• Balance training
Increase Public/Clinical Education about Risk Factors

Addressing Human Factors/Diagnostic Issues

Ms. S's current psychiatrist re-administered the Mini-Mental State Examination and neuropsychological tests. He confirmed that Ms. S had a mild cognitive disorder, and more attention was given to planning for Ms. S to transition to an assisted living setting. Her cognitive changes also prompted a home visit, where further fall hazards were identified. Recommendations included installation of a handrail on a stairway in the home.

Improving Communication

The partial hospital staff initiated a new program called "Falling Stars," in which nursing staff evaluated and rated each patient's fall risk on a daily basis. This information was communicated to the lead nurse and physician in a timely manner. Ms. S, like other patients with increased risk of falling, was given an orange wrist bracelet to wear to inform others of the increased risk.

Instituting Medication Changes

Ms. S was gradually weaned completely from lorazepam and her dose of trazadone was decreased to 25 mg at bedtime. Haloperidol was found to be unnecessary for her current functioning and was discontinued. Her "depression" was reassessed, her symptoms were found to be more consistent with apathy secondary to her cognitive dysfunction, and the bupropion was discontinued. As a result of the medication changes, the number of medications Ms. S would be taking was decreased from five to two.

Correcting Environmental Issues

The self-activating revolving door presented not only an environmental risk factor but also an institutional general/medical liability issue. The medical and nursing

leadership decided that all such revolving doors would be replaced with radiofrequency-controlled, sideways-opening automatic doors. The nurses found shoes with straps and hook-and-loop fasteners to replace Ms. S's ill-fitting sandals. A handrail was installed in her home with her consent.

Conclusions

Physicians have an ethical obligation to provide competent care, which includes prevention of potential falls by patients. Beyond the ethical expectations, the potential cost of serious slips and falls is impressive, both in financial terms and in terms of patients' suffering. Through awareness of risk factor for patient falls and by encouraging the treatment team to monitor and address risk factors identified in individual patients, physicians can help minimize the occurrence of falls.

Take-Away Points

- Think about and identify the potential risk of a patient's falling.
- Make fall prevention a team effort.
- Discuss with the patient the potential fall risks given his/her underlying conditions.
- Take time to inform all care providers of the patient's fall risk factors through appropriate communication channels.
- Monitor and address high risk factors for falling
    a. Limit use of long-acting benzodiazepines, neuroleptics, and antidepressants to the extent possible.
    b. Identify and correct environmental hazards.
    c. Address the patient's balance and physical strength deficits.

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Chapter 5

Elopement
A Primer on Safety and Prevention

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Case Examples

A 44-year-old man who was infected with human immunodeficiency virus was escorted from an inpatient unit to receive cortical function tests for evaluation of possible dementia. The psychologist left the patient in her office for a few minutes to consult with another staff member. When she returned, the patient was gone. Staff members searched the floor and the bathroom but did not find the patient. Staff members alerted security personnel and gave a description of the patient. Upon further investigation, it became apparent that the psychologist had not been alerted to the possibility of elopement. The nurses later told her, in retrospect, that the patient often eloped. He had been warned that he would be discharged if he did not cooperate with treatment.

A 28-year-old African American woman who lived close to the hospital asked to be discharged. She was tearful, and a nurse attempted to calm her down, after which the patient agreed to stay in her room. At breakfast, the nurse could not find the patient. Another staff member recalled seeing the patient in the elevator with a nurse from a different service. She assumed that the young woman was being escorted out, which was incorrect. The patient was brought back to the unit and advised of her discharge the following day.

The purpose of this chapter is to present a profile of patients at risk for elopement from psychiatric hospitals, ways to assess potential of elopement, and measures that can be taken to promote the safety of patients who elope. A protocol for managing patients at risk for eloping is suggested for use in program planning, systems reviews, and efforts to prevent elopement.

The literature on elopements encompasses articles on administrative discharges, elopements from inpatient units and forensic facilities, and instances of patients' leaving against medical advice. For the purposes of this chapter, elopements are defined as 1) departures/escapes from an inpatient unit where a patient leaves without prior notification and 2) unplanned departures from other service units during the course of a hospitalization or treatment.

Rates of elopement vary depending on the character of the facility, on whether the count is a percentage of all admissions, and on whether elopement from a locked or open unit or ward is considered. There is substantial agreement among authors that have written about elopement over the past 40 years that elopement from psychiatric facilities increases risks of injury for patients and others in the community, causes distress among staff members, and increases the potential for litigation against the facility (Aud 2004; Kleis and Stout 1991; Lewis and Kohl 1962; Tsai 1998).

Research articles on elopement can be categorized as follows:

- Those that describe the demographics of patients who are likely to elope (Behrmann and Strauss 1986; Greenberg et al. 1968; Greenberg et al. 1994; Meyer et al. 1967; Molnar and Pinchoff 1993; Nussbaum et al. 1994; Swindall and Molnar 1985; Tsai 1998; Wolber and Karanian 2002)
- Those that address management of the environment, staffing problems, and levels of privileges and their assignment (Greenberg et al. 1994; Swindall and Molnar 1985)
- Those that describe nursing staff members' responses to elopement and their experiences and therapeutic relationships with the eloped patient, the meaning of the elopement for the staff members, and prior warnings given by patients about eloping (Cancro 1968; Kleis and Stout 1991; Wolber and Karanian 2002)

Researchers have identified demographics and diagnostic variables and environmental and system factors that are frequently associated with elopement (Table 1; Table 2).

Table 1. Demographic and Diagnostic Variables Associated with Elopement
• Younger age • Male gender • Patients with no legal history • Antisocial personality disorder, other personality vulnerabilities • Comorbid substance abuse/drug cravings • Lack of adequate therapeutic relationships with nurses and doctors • Impulsivity in mentally retarded, demented, or otherwise cognitively compromised patients or patients with schizophrenia • Expression of undue concern about the safety of loved ones, such as minor children, and safety of belongings and living situation • History of elopement during past hospitalizations • MMPI findings that the patient is poorly directed, has a high energy level, and denies the need for hospitalization

Table 2. Environmental and System Factors Associated with Elopement
• Easy access to the outside; open-door policy • Clustering of elopement during change of shift and dinner hours, days just before the weekend • Poor patient/staff ratio • Tendency of patients to elope early in the hospitalization (Tsai 1998) • Poor communication between and among staff, unclear orders from physicians • Poor staff accountability for patients • The patient's perception (or lack thereof) of the meaning of the hospitalization and treatment needs • Patient's perception of whether it is wrong to leave without authorization • Involuntary status • Longer hospital stays

Factors to examine after an elopement takes place are described in a few articles. Some authors have discussed examination of nurses' emphasis on treatment principles and goals and nurses' engagement of patients in understanding the need for treatment; other factors to be examined include communication about patients at risk, understanding the risk profile of patients who elope, and methods to implement systems changes (McIndoe 1986; Rachlin et al. 1974).

Psychiatric emergency departments across the country are inundated with patients needing attention for substance abuse and relapse of major mental illness due to lack of adherence to treatment. Loss of entitlements has resulted in the abuse of emergency departments for regular care. Persons who are escorted by the police or have otherwise been ordered by the court to receive treatment and persons with severe behavior problems receive the first priority for evaluation, causing others to wait for lengthy periods of time. Patients may walk out or elope while waiting for evaluation. Although we cannot require patients to be evaluated, we must address the challenge of minimizing waiting time to avoid elopements.

The Importance of a Systems Perspective

All incidents of elopement indicate systems problems, such as those described in the case examples at the beginning of this chapter. Readily apparent problems include lack of efforts to profile risk of elopement for each patient systematically; lack of communication among and between caregivers; lack of explanation for, education about, and sharing of treatment plans with the patient; failure to establish a therapeutic relationship with the patient; failure to address drug withdrawal adequately so patients can begin to focus on sobriety; and lack of attention to patients' cognitive difficulties.

How can systems avoid such errors?

1. In each psychiatric system, elopement risk must be addressed at admission for all patients, similar to the way that risk for violence or falls is addressed. The goal is to maintain unit safety while preventing elopement in at-risk individuals. Any member of the treating team can identify elopement risk and share this information with the team.
2. Each patient's risk profile must be identified, and a readily visible alert must be posted in an easily seen location, such as on the wall in the room where rounds are conducted. A newly assigned nurse can then get a bird's eye view of all patients at risk for violence, sexual acting out, or elopement (the letters V, S, or E may be written next to the patient's name to signify the type of risk). Physicians may find this information useful as well.
3. There is no substitute for person-to-person handoffs. For example, in the first case described at the beginning of this chapter, the assigned nurse or resident could have alerted the staff person who escorted the patient off the inpatient unit for cortical function testing. Elopement risk may change from day to day. Handoffs are therefore critical.
4. Cognitively limited patients are at increased risk for obvious reasons. Older patients with dementia cannot be left unsupervised for any length of time. Unfamiliar surroundings compound the risk. Delirious patients are at similar risk.
5. The treatment team must assign observation levels commensurate with nursing needs. Close observation and time-outs in the patient's room are some of the strategies that can be used.
6. The treatment team must obtain the services of an interpreter or translator when treating patients with language difficulties.
7. The need for treatment to overcome factors that contribute to elopement must be addressed with the patient, such as the care of young children in the home.

A checklist such as that shown in Table 3 is useful in increasing staff awareness of the need for vigilance when treating patients who are at risk for elopement.

Finally, the results of risk assessment and of the interventions that were implemented must be fully documented.

What Must Be Done if an Elopement Occurs?

When an elopement occurs, the objective is to intervene as quickly and safely as possible and return the patient to the treatment unit. All members of the treatment team must be trained and given authority to alert persons in charge and those higher up in the chain of command. A licensed physician may initiate an emergency petition for the patient's return.

Table 3. Checklist for Reducing Risk of Elopement
• Are the doors locked? • Is the patient restricted to the unit, or does he/ she have on-campus privileges? • Does the patient have an adequate understanding of the need for hospitalization? • Does the family have adequate knowledge of the risk of elopement, and can they help to minimize the risk? • Did the nurses remove street clothing and shoes to discourage elopement? • Should the patient be placed in hospital clothing, and given nonskid footwear? • Has the patient been placed on increased observation status? • Should doors be unlocked manually and not electronically, so the patient does not slip out with other staff?

The most senior physician should communicate with family about the patient's absence and the steps that are being taken to bring the patient back. A patient's elopement constitutes a medical emergency, and permissions for disclosure of information that are required by the Health Insurance Portability and Accountability Act are not needed in emergencies.

An emergency petition should be initiated, and the police should be informed if the eloped patient poses a threat to self or others. If a patient who is considered a danger to others has identified a victim, and the treatment team is aware of that person's identity, the duty to warn statute must be fulfilled. Interventions in the case of a dangerous patient include civil commitment of the patient, treatment directed toward elimination of the threat, and informing law enforcement agencies and, when possible, the intended victim about the nature of the threat and the identity of the patient.

Should the attending physician decide that the patient need not return because he/she was ready for discharge, the patient may be discharged. In addition, hospital policies may require patients who do not return within 24 hours to be discharged. The institution's law office should be contacted about the discharge if the patient has been committed.

All efforts must be made to provide the discharged patient with adequate follow-up and medications. Such instructions must be handed to the patient and/ or family members at discharge (Department of Veterans Affairs National Center for Patient Safety 2007; Chura 2001).

Take-Away Points

- Elopements are not addressed adequately in terms of clinical protocols in the literature.
- Systematic and regular assessments are the only preventive strategy that can be used.
- Communication among team members, with regular updates, is necessary until the danger of elopement has passed.
- Family members can play a crucial role in mitigating the risk.
- Algorithms appropriate to the institution may aid in implementing protocols.

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Chapter 6

Medical Comorbidity
Patient Safety in Psychiatry and Comorbid Medical Conditions
Miles F. Shore, M.D.

> ***Case Example 1***
>
> Mrs. A, age 73 years, had had a psychotic disorder for 30 years and had become accustomed to life in a mental hospital, and the staff had become accustomed to her. A petite woman, she enjoyed toying with the staff, sharing with them her delusions that were often colorful and teasing. When she announced one day at breakfast that she heard bells ringing in her rectum, the staff members were amused at her latest caper. It was only a month later, when a psychiatric trainee decided to investigate, that an annular lesion was discovered constricting her rectum. It was surgically resected, and she survived another 5 years.

A major rationale for the medical training of psychiatrists is to enable them to pay attention to comorbid medical conditions in their patients. With the increasing specialization of medical care, psychiatrists in most situations will not have primary responsibility for treating medical conditions, but they should be alert for symptoms that should trigger referral to other physicians. In most cases, psychiatrists should be aware of their patients' medical regimens, be in a position to monitor compliance, and make every effort to enhance cooperation. These steps are especially important for patients who are seriously depressed or whose cognitive abilities are limited by psychotic conditions.

Patient safety involves a different mind-set from excellent clinical practice. Medical errors occur despite the best efforts of highly-trained, conscientious physicians working in the best institutions in the world (Leape 1994). Medical errors typically reflect the complexity of processes of care in which even very low error rates are multiplied to dangerous proportions by the number of steps in the system. They also result from normal human inattention, fatigue, distraction, and lapses in routine. Ensuring patient safety requires attention to processes of care. How many steps are there? What does analysis of untoward events reveal about weak links in the system? How can all of the participants in the system be alerted to report errors, especially "near-misses," so that corrective action can be taken? Finally, it is important to emphasize that the elements of the system include: 1) patients themselves; 2) caregivers; and 3) the administrative organization of the system, including its complexity, i.e., the number of steps involved in the process of care and their interaction.

These questions are of special importance in the care of patients with serious, long-term psychiatric disorders whose care involves multiple caregivers of different disciplines, in facilities that range from residences in local neighborhoods to high-tech hospitals removed from local communities. The caregivers in these various settings typically work under different administrative arrangements, with no central person who knows all the facts and has the administrative authority to coordinate the system. The administrative diaspora is pronounced in the case of comorbid medical conditions, because the physician and institution to which the patient is referred are most often outside the mental health system.

A Systems Analysis of Contributory Factors

The Patients

The characteristics of psychiatric patients themselves may lead to medical errors if physical complaints are thought to be the result of psychosis and are not fully investigated. Such misunderstandings can be heightened if the patients present their symptoms dramatically or with a captivating style:

Seriously ill psychiatric patients may not behave reliably in the doctor's office. They may be hostile, wandering in their presentation, depressed, or so affected by medication side effects that an adequate history is hard to obtain. Once a medical comorbidity is diagnosed, the psychiatric disorder may make it difficult for the patient to adhere to treatment. Depression, thought disorder, manic episodes, or the complications of institutionalization may make adherence haphazard.

Physicians and Other Caregivers

Not every physician is comfortable or knowledgeable in dealing with psychiatric patients. Certain steps can reduce these problems. Perhaps the most important step is to select for referrals physicians who are experienced in dealing with psychiatric patients. Ideally, the nonpsychiatric medical care of psychiatric patients, especially those with serious disorders, should be a medical specialty. Taking an adequate history from many patients with serious mental illnesses is time-consuming and laborious (Morrison and Flanagan 1978). Patience is required to create a relationship of trust with patients for whom trust and relationships are serious issues. It is unrealistic for a nonpsychiatric physician dealing with psychiatric patients to be bound by the current standards of very short visits. More than one visit may be necessary before a serious workup can be done. The system of referral and remuneration must be arranged to allow adequate time.

The persons in day-to-day direct contact with long-term psychiatric patients may not have much medical training. Alerting them to significant signs and symptoms and creating a system that can respond effectively to their concerns are essential aspects of providing safe care for psychiatric patients.

Case Example 2

Ms. G, age 42 years, lived in a group home and took a maintenance regimen of antipsychotic and antianxiety medications. On a Friday afternoon she was given acetaminophen for a headache. The next morning she reported chest and back pains, headaches, and blurred vision. She ate little and appeared tired and pale, with dry lips. Vital signs were reportedly normal, and the house manager instructed the evening shift staff to send her to the emergency department if her symptoms worsened. Although they did get worse, a licensed practical nurse who was working the evening shift diagnosed her problem as medication related and decided to withhold her maintenance medications. This assessment of the situation influenced the later reactions of other staff members. They tried to page the on-call administrator, but when there was no response, they left messages for the off-duty residence manager and assistant manager and took no further action. Later, the midnight shift worker attempted to reach the managers but did not try to contact the on-call administrator as protocol required. By 8 AM on Sunday, when the day staff arrived, staff members reported that there were no problems. At that time there was no mention of Ms. G's health status over the preceding 24 hours. Later, the staff person who spoke earlier to the managers learned of Ms. G's continuing symptoms and tried again to reach the managers. When the manager was finally contacted, the manager instructed staff to take Ms. G's vital signs; when they did so, she was unresponsive in bed. Emergency medical services were called, but she could not be revived. An autopsy was performed, and it was determined that she had died from pneumonia, which might have been treated with timely medical care.

This case illustrates both a failure of adequate medical assessment and failure to make use of existing protocols designed to deal with medical concerns. It also reflects the lack of guidelines for communication between all of the caregivers.

Organization of the System of Care

Borrowing from studies of high-reliability organizations in civilian and naval aviation, as well as the nuclear power industry, the literature on medical error emphasizes the importance of complexity as a contributor to medical errors (Leape 1994). If each step of a multistep process has only a 1% rate of errors, the error rate of a multistep process is a multiple of the individual rates at each step. The result is a high rate of errors for the whole system, even if it is composed of steps that are quite safe. A commonplace example is the "telephone game," in which individuals whisper a message to one another while sitting around a circle. The message that emerges at the end is usually totally different from the one that starts the game.

As complex health care technology becomes the norm, delivery of medical care is increasingly likely to develop into a multistep process involving numerous people and an array of machines and systems connected by communication channels, information technology, and protocols (Grasso et al. 2003). This situation is fertile ground for the problems that collectively lead to medical errors, as illustrated in the following case example.

Case Example 3

Ms. P, a 6-month resident of a general hospital psychiatric unit, was 48 years old when she died. Her health difficulties first appeared when she was 19 years old. She had received outpatient therapy with a private psychiatrist for almost 10 years. In her late 20s, a serious exacerbation of her symptoms necessitated psychiatric hospitalization, during which she received a diagnosis of schizophrenia. Over the next 15 years she received outpatient treatment. She decompensated repeatedly and was hospitalized for stabilization.

In her 48th year, she became unable to care for herself; her apartment was a mess, she was emaciated and exhibited poor personal hygiene. She was admitted to the psychiatric unit of the local hospital. A thorough review of her psychiatric and medical history included a diagnosis of hyperthyroidism. Her calcium level was 11.9 mg/dL (normal range: 8.7–10.7 mg/dL) which was consistent with hyperparathyroidism. During the first 3 months of hospitalization, she was treated with a variety of psychotropic medications. Her mental status was unchanged, and she continued to be psychotic, agitated, and disorganized. Electroconvulsive therapy (ECT) was recommended, but she objected to that treatment, and a court order was required to permit its administration over her objections. At the same time, her blood chemistry results remained abnormal, and testing suggested a benign right parathyroid adenoma. It was believed that the tumor and hypercalcemia might be contributing to her mental status and poor response to medications. The medical staff recommended a parathyroidectomy to remove the tumor.

The recommendation was not acted upon by the psychiatric service, although no reason for inaction was given. Despite a court-ordered course of 22 ECT sessions, her mental status remained unchanged. A month later, endocrinology consultants again recommended surgery to correct her parathyroid abnormality and the continuing hypercalcemia. The recommendation was rejected by the psychiatry service because she was incapable of giving consent. As she remained extremely psychotic and opposed the psychiatric treatment, the psychiatry service began making plans for long-term care in a state psychiatric center. During the following month, she was lethargic and hypotensive, her electrolyte levels were significantly abnormal, and her calcium level was dangerously high at 22.3 mg/dL. With a diagnosis of malignant hypercalcemia secondary to hyperparathyroidism, she was transferred to the medical service and then to the intensive care unit. Over the next 48 hours, her condition deteriorated quickly, and she experienced dehydration, respiratory distress, and renal failure. A parathyroidectomy was recommended if her condition stabilized, but despite aggressive care, she experienced cardiopulmonary arrest and died. Her death was attributed to hypercalcemia.

It was judged that the surgery to correct the parathyroid condition, twice recommended before her final crisis, could have saved her life, or perhaps restored her life that had, in retrospect, been ruined by the undiagnosed condition.

This case illustrates both inadequate diagnostic acumen and failure to achieve an adequate working relationship between the psychiatric service and the medical service. It also suggests a fundamental flaw in the organization of clinical care. In many, if not most general hospitals, physician autonomy means that there is no higher medical authority who can be summoned to review cases and render a decision in situations where two sets of specialists disagree about diagnosis and treatment in a difficult case. As medical care becomes increasingly complex, physician autonomy, a cornerstone of medical practice, may need to be modified to offer patients access to more information and more informed judgment than can reside in any one physician.

In all three of the cases presented in this chapter, modern developments in information technology applied to patient care would have had a markedly positive effect. Lack of attention to clinical information, breaks in the continuity of care, and poor communication at crucial times could have been prevented by use of information systems that could notify clinicians of lapses, provide unfailing surveillance of continuity, and notify higher authorities when pagers are turned off or calls are not answered. Most important, a culture of safety that subjects care to constant scrutiny for areas of vulnerability is essential. Research and academic publications will by themselves not improve patient safety, but they are a means of knowledge development and transfer and are integral to any efforts to improve patient safety (Stelfox et al. 2006). The price of safety is eternal vigilance.

Take-Away Points

- Check for all medical reasons for change in mental status before assigning a psychiatric diagnosis.
- Communicate with all staff members responsible for the patient's care and update them frequently.
- Work collaboratively with medical staff, avoiding "turf" battles.
- Review prior history and complications.
- Ask for help when needed from those with more experience.
- Identify a main care provider who knows all the facts of the case.
- Interview an outside informant who knows the patient well.

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Chapter 7

Drug/Medication Errors
Examining Risks to Safe Prescribing and Use of Medications

Carol Perez, M.D.
Geetha Jayaram M.D., M.B.A.

Case Example

At 3 PM on Friday afternoon, Dr. A sauntered out of the hospital after discharging his last patient, Mrs. D, a 67-year-old widow with no previous psychiatric history. She had been admitted to the psychiatric unit from the emergency department, where she had come 2 days earlier stating, "I can't live like this anymore; please kill me." She was depressed, anxious, and fatigued, with decreased mobility due to arthritis pain that was unresponsive to high doses of ibuprofen. Laboratory testing revealed only a mild anemia. The discharge planning staff had arranged for Mrs. D to live with her daughter 2 hours away while she initiated treatment with the antidepressant that Dr. A had just prescribed. In addition giving Mrs. D the prescription, the doctor had handed her an appointment card reminding her to see him in the office 1 month later; this was his first available appointment. He had written the discharge order and dictated his discharge summary prior to leaving on vacation. He anticipated signing his pager over to his office mate, Dr. B later that day.

When Mrs. D's daughter, Ms. C, arrived to pick up her mother an hour later, she sought out Nurse H, who had just taken over Mrs. D's care. Mrs. D's pending discharge, without details, had been announced during the change-of-shift report. Nurse H had been busy with a new admission, so she had not yet met Mrs. D or reviewed her chart. Mrs. D showed Nurse H her prescription and appointment card. Perplexed, the nurse peered at the prescription, then consulted Mrs. D's chart for clarification, finding only a discharge order and a note stating "Discharge summary dictated." Finally, she asked Mrs. D if she understood the purpose of the medication, to which the patient replied, "To get rid of my pain." A look of recognition flashed across Nurse H's face. She went to the computer, printed out a patient information sheet and completed the paperwork to send Mrs. D and her daughter on their way. Nurse H's newly admitted patient came up to the nurses' station clamoring for discharge.

The next morning, Ms. R, the pharmacist, gazed at the prescription Ms. C had taken to the pharmacy for her mother, shook her head, and then showed it to her colleague, who shrugged his shoulders. Ms. R nonchalantly asked why the medication was prescribed. Ms. C answered, "It's for my mother's arthritis," and showed Ms. R the information sheet Nurse H had provided. Ms. R, still unsure, wondered if she should page the doctor for confirmation, but the sight of 12 customers in line and the sound of Ms. C's wailing infant settled the matter.

Mrs. D took her medication faithfully, but after a week her pain was unimproved. Her depression had progressed to the point where she stayed in bed virtually all day, ignored her beloved grandchildren, and refused to eat because of stomach discomfort. Ms. C left a message on Dr. B's voice mail stating that the medication was not working. Unable to find Mrs. D's chart in the office, Dr. B deduced that she had been a hospital patient, called medical records for information, and received the discharge summary by fax. He promptly called and reassured Ms. C that the medication takes at least 2 weeks to kick in, but in the meantime they could increase to two pills a day because Mrs. D might need a higher dose.

After 3 days of a double dose, which Mrs. D supplemented with some ibuprofen from Ms. C's medicine cabinet, Mrs. D collapsed on her way to the bathroom. Her daughter found her unconscious, ashen-faced, with blackish stool staining her clothing. Subsequent diagnostic workup revealed profound hypotension, tachycardia, a hematocrit value of 18%, and a large bleeding gastric ulcer. When emergency department staff informed Dr. B that the Celebrex prescribed by Dr. A, in combination with ibuprofen, had precipitated this event, he exclaimed "Celebrex! Dr. A prescribed Celexa!"

The Institute of Medicine's 2006 report on the prevalence of medication errors in the United States described many aspects of such errors, including the nature and causes of medication errors, incidence, severity, and associated costs, as well as alternative approaches to reducing such errors and guidance to consumers, providers, payers, and other key stakeholders (Aspden et al. 2007). The document did not report errors related to the field of psychiatry. Studies have found that psychotropic medications represent a significant source of adverse events, with "CNS agents" accounting for 42% of such events in a recent general hospital survey (Aspden et al. 2007; Moore et al. 2007). Psychotropic medications have also been identified as the most common class of medications associated with preventable adverse events in nursing homes (Leape et al. 1995).

Errors are failures to complete a planned action as intended, the use of a wrong plan to achieve an aim, or an unintended action with no clear plan congruent with treatment. Errors may occur in prescription or order writing, order translation, and dispensing and transportation of medication, as well as in its actual administration. Any adverse drug event is a departure from an intended plan of care for a particular patient. Failures to prescribe appropriate medications at an appropriate time in the process of care, as well as prescription of inadequate doses or inadequate duration of treatment, should be considered errors as well.

Medication errors can and do occur in large part because of inadequate communication, especially at transition points in the treatment process. Situations that require particular vigilance include patient transfer among different levels or locations of treatment (e.g., between home and hospital, medical unit and psychiatric unit, and hospital and nursing home); assumption of treatment responsibilities by a new physician, nurse, or pharmacist (e.g., vacations, shift changes, using new providers for reason of payment or convenience); and institution of new treatments, especially for newly diagnosed conditions with which the patient and family are relatively unfamiliar. Clear and uncomplicated communication is especially vital in psychiatry, where patient factors—such as thought disorder, depression, anxiety, or resistance to treatment—present additional barriers to safe use of medication.

This chapter is not meant to be an exhaustive list of all medication errors in psychiatry, but an exercise in helping the reader to be alert to many possible pitfalls in prescription writing and medication administration and to the necessity for particular attention to the psychiatric patient's needs.

Root Cause Analysis

A root cause analysis of our fictional case illustrates a confluence of many factors resulting in the failure of the health care system to prevent the "event"—Mrs. D's rehospitalization for gastrointestinal bleeding and worsening, untreated depression. At each stage of the process, each individual involved—physicians, nurses, pharmacist, family, and patient—might have interrupted progress toward the event through a different course of action or through more effective communication. On a larger scale, the health care institutions involved—the hospital and the pharmacy—might have made the financial and political commitment to additional safeguards that could render such outcomes less probable. Finally, the health care system as a whole could take steps to create mechanisms and incentives for individuals and institutions to accomplish safer practice.

Specifically, what could have been done differently by each actor in this drama? First, Dr. A could have legibly printed the prescription for Celexa 20 mg daily, which was deciphered as Celebrex 200 mg daily. His hasty cursive handwriting trailed off the letters after "Cele"; in addition, the large initial loop on the "m" in "mg" resembled a zero. Including the generic name and/or indication would have provided clarification. Other potential prescribing pitfalls are noted in Table 1.

Table 1. Prescribing Pitfalls

Look-alike drug pairs
- olanzapine/clozapine
- Zyprexa/Zyrtec
- Celexa/Celebrex
- methadone/methylphenidate

Sound-alike drug pairs
- Adderall/Inderal
- Paxil/Taxol
- Lomotil/Lamictal
- Tegretol/Teguin

Identical drugs with different brand names
- Wellbutrin/Zyban
- Prozac/Serafem

Different forms of drug
- Effexor/Effexor XR
- Wellbutrin SR/Wellbutrin XL
- Depakote/Depakote ER

Decimal points and zeros
- Leading zero should always precede a decimal expression of less than 1 (e.g., 0.1); trailing zeros are to be avoided (e.g., 1.0).

Forbidden abbreviations
- U for units
- IU for International Units
- µg for mcg
- qod or QOD for every other day
- qid or QID for 4 times a day
- q.d. for daily
- AU, AS , and AD for each ear, left ear, and right ear, respectively
- MS or MSO4 for morphine
- MgSO4 for magnesium

Despite his poorly-written prescription, Dr. A could have averted disaster by communicating his intentions to Dr. B face to face. Or, in addition to his dutifully dictated discharge summary, he could have written a brief note in the chart including the Axis I diagnosis on discharge (e.g., major depression) and medication prescribed to address this condition (perhaps a more legible version of his prescription). Such a note might have triggered enough doubt in Nurse H's mind to prompt her to page him before he signed out, thus identifying the correct medication and enabling her to print out the correct information sheet, which Ms. C could have shown to the pharmacist. One hopes that Dr. A had cultivated a reputation as a physician who responds to pages promptly and respectfully, with an attitude of collaboration rather than annoyance. Even better, Dr. A could have spoken to Mrs. D's nurse directly, even if this necessitated a brief interruption of her work or of change-of-shift report. One hopes that the nursing staff and administration would welcome such interruptions also with an attitude of collaboration rather than annoyance.

Ideally, Dr. A would have also communicated with Ms. C, with Mrs. D's consent, to outline the treatment plan, since she would be supervising her mother in her home and since Mrs. D was not fully able to participate, given

her depression and preoccupation with pain. By sharing the diagnosis and treatment plan with Ms. C and naming the medication and its common side effects as well as potential serious adverse effects, Dr. A might have avoided the ensuing miscommunication. In addition, such a dialogue might have triggered the question, “Well, what about Mom’s arthritis pain?” Dr. A could have advised them to consult Mrs. D’s primary care physician as soon as possible to address this issue, as well as the mild anemia diagnosed on admission. Perhaps, if consulted, the physician would have identified already-present gastrointestinal bleeding, even if Dr. A missed the red flag suggested by anemia in the context of escalating doses of ibuprofen.

It should be noted that even generally well-tolerated selective serotonin reuptake inhibitors may exacerbate gastrointestinal bleeding, especially in older patients, a side effect of which many physicians may not be aware. This case demonstrates the importance of continuing medical education to prevent complacency and to ensure that physicians’ knowledge is as current as possible regarding the safe use of medications, even medications with which they have grown very familiar through regular use.

Dr. A would have been well advised to heed warnings regarding close monitoring of newly instituted antidepressant regimens. Mrs. D might have experienced an early exacerbation of anxiety or exhibited suicidal behavior as she began taking Celexa (citalopram). Indeed, adverse outcomes are more likely within 2 weeks of hospital discharge. Arranging with Dr. B to follow-up with Mrs. D during his absence would have forced Dr. A to communicate clinical information to his colleague. Thus, if the pharmacist had called Dr. B for clarification, he actually could have illuminated the situation even before the discharge summary had been transcribed.

Dr. B, as the covering physician, would have been well advised to insist on receiving clinical information on any of Dr. A’s patients who were likely to require attention (e.g., patients who were transitioning from one level of care to another; patients who had recently required medication dosage changes; patients who were experiencing distressing personal, family, or medical circumstances; and self-destructive patients). Although he conscientiously sought out clinical information and promptly responded to Ms. C’s entreaty, he erroneously assumed that the patient was carrying out the treatment plan envisioned by Dr. A. A question such as “Is your mother taking her Celexa every day?” might have prompted a surprised rejoinder, such as “You mean Celebrex!” Despite his intent to offer a more rapid relief from suffering by increasing the dose of the supposed Celexa, he might have considered the prudence of “starting low and going slow” in prescribing for elderly patients. Indeed, if he had increased to one and a half pills instead of two pills a day, Ms. C might have remarked, “The medicine is in a capsule; how do we cut it in half?,” which might have led to doubt on Dr. B’s part.

Clearly, the physicians are not the only individuals whose human frailty contributed to this outcome. We have every reason to assume that each individual involved demonstrated basic competence and the best of intentions. Although Dr. A exhibited poor handwriting and did not otherwise communicate as well as he could have and Dr. B lacked consciousness of the relevant issues, in most cases things would have turned out all right due to chance (e.g., no drug name ambiguity) or intervention by another person or mechanism.

As it turned out, Nurse H happened to feel too overwhelmed on that particular discharge date to take the extra steps of paging Dr. A for clarification or even pausing to read the previous day’s progress note, which stated “will start antidepressant after medically cleared.” Ms. R, the pharmacist, was a victim of poor written communication and happened to feel too overwhelmed on that particular day in the pharmacy to page Dr. A. Even Dr. B, whose response would have been speculative, might have said, “We’re psychiatrists, so I’m not sure he would have prescribed Celebrex. Maybe it was Celexa. He prescribes a lot of it.” Also, Ms. R in another situation might have adhered more closely to her policy of reviewing medication information with the customer, including over-the-counter medications that should be avoided and side effects that should be reported immediately.

Ms. C lovingly attempted to fulfill her duty to her mother, but she was hampered by lack of education about Mrs. D’s condition and was too preoccupied with the needs of her own young family to spend extra time reading the handouts from the hospital and pharmacy in order to impress the information on her mother. Mrs. D was in too much pain—physical and psychological—to be effective as her own advocate.

Conclusions

Health care systems can work to reduce the impact of the human factors illustrated in the case of Mrs. D. Electronic prescribing can minimize the “bad handwriting” factor. Commitment to adequate hospital staffing—for example, having a dedicated admissions nurse—would liberate the other nurses to attend to their existing patients; likewise, greater staffing in pharmacies, as well as technologies that would promote information transfer among pharmacies and hospitals would permit a patient to use different pharmacies at night or when out of town without sacrificing the protection of the “home” pharmacy’s database. As well, reporting untoward occurrences with new medications will alert the U.S. Food and Drug Administration to possibilities of risk (Grasso et al. 2003; Institute of Medicine 1999; Joint Commission International Center

for Patient Safety 2007; Leape et al. 1995; Kessler 1993).

Needless to say, such initiatives require financial commitment on the part of health care institutions, insurers, governmental agencies, and consumers, as well as flexibility on the part of providers. Enhancement of patient safety as a policy requires an ongoing commitment by all health care system participants to work diligently to establish a "culture of safety" that strives to identify errors (Grasso et al. 2003; Institute of Medicine 1999; Joint Commission International Center for Patient Safety 2007; Leape et al. 1995). The goal of such identification of errors must not be the assignment of blame but rather the acknowledgment that while all errors cannot be prevented, procedures can be adopted that would decrease the likelihood that errors will progress or compound to produce bad outcomes or "near-misses" and that which would, in general, enhance communication, especially at transitional points in treatment.

Take-Away Points

Remember the Three C's of Safe Prescribing:

- Cognition—Know your medication and your patient.
- Concentration—Be aware of and account for distracting personal factors.
- Communication—Write and speak clearly and comprehensively.

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Chapter 8

Patient Safety from the Patient and Family Perspective

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Case Example 1

A number of years ago (and before the availability of selective serotonin reuptake inhibitors), Ms. K was referred to psychiatrist Dr. H for treatment of depression. Ms. K was a much respected 25-year-old administrative assistant who was feeling increasingly depressed. She presented in a quiet, thoughtful manner and was puzzled because there were no apparent precipitating psychosocial reasons for her depression. She lived at her parents' home and stated, "We are a close family, and my personal life is good." On the other hand, she had many of the classic neuro-vegetative symptoms of depression, including decreased appetite, decreased energy and libido, sleeping difficulties, and decreased ability to concentrate. She felt helpless but not hopeless and denied suicidal ideation or intent. Dr. H contracted with Ms. K to see her weekly. Ms. K agreed to let Dr. H know when or if there were changes in her symptoms from week to week, and she was started on 50 mg of imipramine at bedtime, to be increased to 150 mg at bedtime over the ensuing 2 weeks.

By the third week, she reported feeling improvement in her mood and, to a lesser extent, also in her energy. At that point, on a Thursday, Dr. H wrote her a prescription for a 2-week supply (i.e., 45 tablets) of 50 mg of imipramine. The following Monday morning Dr. H received a call from Ms. K's mother informing him that Ms. Karen had not come home Saturday night (a most unusual occurrence) and they had notified the police, who found her dead Sunday evening in an abandoned area of town, slouched over in the front seat of her car with the empty bottle of imipramine. No note was found, and her death was ruled a suicide.

Root Cause Analysis

The outcome in this case led Dr. H to review his treatment of Ms. K, including the account of her treatment in his office notes. In the history it was noted that other family members had been depressed. However, there was no mention of any suicides or suicide attempts in Ms. K's family or among her close friends. Furthermore, it became clear that Dr. H never asked her in subsequent sessions about any change in suicidal ideation or intent. Following the discussion in the first session, it appears that Dr. H simply assumed that Ms. K would report any such changes. Likewise, the office notes included no mention after the first session about suicidal ideation or intent.

Discussion With the Patient's Family

Dr. H asked to meet with the patient's parents. The meeting occurred within 2 days of the time of the mother's phone call. Both parents were angry with Dr. H and asked, "Why did you give her all those pills at once?" Dr. H stated that his discussions with Ms. K indicated prescribing a 2-week supply of the medication would be safe, but he apologized for this error of commission and for any errors of omission. Although both parents remained angry, they appreciated the straightforward apology and did not sue Dr. H. Offering an apology for a medical error is a controversial course of action for a physician, but current opinion appears to favor the decision to apologize (Banja 2003).

In addition including an error of commission—prescribing a potentially lethal number of pills to a potentially suicidal patient—this tragic case illustrates at least one error of omission that may well have contributed to the patient's suicide. As the American Psychiatric Association practice guideline concerning suicide makes clear, it is imperative in the case of a patient with newly diagnosed depression to assessment risk for suicide not just at the first visit but also at subsequent visits and whenever there is a change in the treatment setting (American Psychiatric Association 2003). This error of omission was discussed with the patient's parents who, although they remained angry with Dr. H, appreciated the candor of the self-disclosure and stated that it helped them in dealing with the loss of their daughter.

Case Examples 2 and 3

A patient and her mother contacted the hospital Patient Relations department to report that their needs had not been met. "I was told that my physical and emotional needs would be met on this floor, and they did not come even close. The miscommunication and lack of care I encountered were appalling," the patient said. Messages she received from different members of the team were different, and the patient felt reprimanded when she did not attend a group in which she was to participate. She left against medical advice, threatening to sue.

A male patient whose human immunodeficiency virus (HIV) status was unknown to others on the unit but known to the staff protested that staff members discussed his medical concerns openly on the unit, without regard to privacy. Although the patient himself sometimes discussed his HIV status in public, he expected staff to maintain confidentiality about his condition. The physician treating him did not understand why the patient felt free to talk about his condition in public but was alarmed when the treatment staff did so.

Communication and Confidentiality

Of particular importance to patients is a coherent discussion of the diagnosis, plan of treatments, and expected results from medications, all communicated in a timely, courteous, and confidential manner. Regardless of actual outcomes, professionalism should be demonstrated in treating patients. Often the patient is not expecting his or her doctor to be brilliant as much as kind and compassionate. Patients may forgive lack of accuracy in tests ordered, medication choices, etc., as long as a plan of care is shared and the doctor is making

an effort to alleviate symptoms. Confidentiality is of the utmost importance. Safe care includes informing patients of their role in the treatment of their conditions. Treatment outcomes—both expected and unexpected—must be discussed with patients and their families.

Patient Safety from the Patient's Perspective

Our information comes from patient feedback questionnaires as well as from direct verbal feedback from patients receiving care in the settings with which the authors are involved, including inpatient, outpatient, intensive outpatient, and partial hospital settings as well as private practice. Not surprisingly, the comments cut across diagnostic categories as well as demographic differences.

From patients' feedback, two themes emerged that are neither revolutionary nor surprising but are nonetheless important: 1) patients, like the professionals caring for them, share similar patient safety concerns and 2) over the past few years—probably ever since the publication of and publicity surrounding the Institute of Medicine's *Crossing the Quality Chasm* (2001)—the theme of safety in delivery of medical/psychiatric care appears much more frequently in discussions and feedback from patients than in previous years. The feedback that we received can be classified in three broad categories: referral process safety issues, treatment safety issues, and relationship issues.

Referral Process Safety Issues

Psychiatrists' patients, much like consumers in general, are becoming better informed about medical care choices. A surprising number of patients would like to have access to a web site that provides "objective outcome data either about the hospital where I will be admitted or about the psychiatrist who will treat me." Because of Joint Commission and Medicare regulations, most hospitals now provide some outcome data, although not about psychiatric care. Most of the practice-oriented psychiatry web sites are created by psychiatrists, and we are not aware of one that provides "outcome" data. However, in the future that situation will probably change. The other referral process issue is the need for a timely referral. An often repeated refrain was, "It takes so long and too many phone calls to get to one of you."

Patients also report dissatisfaction with poor communication, especially in cases of complex diagnoses and plans of care, and with lengthy intake and evaluation processes at admission when a patient's concentration is often the poorest.

Treatment Safety Issues

Not surprisingly, most patients' comments dealt with this category. A frequent and overriding criticism concerned the "15-minute psychiatric medication check appointment." This amount of time seems adequate when the patient's life is going well but woefully inadequate and unsafe when "my life is in a crisis or things are unstable." To make best use of the time constraints, many patients feel we should use more checklists and questionnaires. Others would like to have email access to the psychiatrist for "routine things like med refills or making appointments." By far, most requests are for the psychiatrist to take more time to explain why a particular medications are being prescribed at this time; what to expect and when; and what are the important side effects and interactions with other psychiatric and nonpsychiatric medications. For inpatients, an additional set of safety concerns are summarized in the following patient comment: "I want to be admitted to a setting that is well staffed and where people know what they are doing. I hope I never need restraints, but if I ever do, I want it done by people who are well trained. I have read too much about people who die from suffocation because it was done the wrong way."

Relationship Safety Issues

Psychiatrists should be particularly aware of the importance of a healthy doctor-patient relationship in delivery of safe psychiatric care. A typical comment was as follows, "You have to realize that in psychiatric care, I feel especially vulnerable whether you, the psychiatrist, convey trust and assurance or indifference." Other comments addressed the importance of establishing a collaborative relationship with the patient "to make it easier for me to ask tough questions." One recurring theme was for the psychiatrist to "be more relaxed and human when you talk with patients. Too many of you psychiatrists are distant, you put up a wall, you lack a sense of humor compared to my other doctors."

Patients also feel offended if they have paid for a service they believe was rendered inadequately. In teaching institutions, it is important to explain accurately who is involved in treating the patient as part of the team (e.g., roles of residents) and who is directly responsible for further contacts.

Patients' family members simply want more access to the patient's treating team. Many family members echoed the following statement: "I know about HIPAA (confidentiality requirements stipulated by the Health Insurance Portability and Accountability Act) but I think some of you just use it as an excuse to hide behind." Families can serve as allies in monitoring patients and helping them adhere to the treatment tasks assigned to them, and family members can benefit from being educated about treatment along with the patient.

Looking at the family feedback, one is left with the sense that family communication is indeed a challenge. The requirements for confidentiality stipulated by HIPAA are real, and clinicians must respect both these requirements and patients' wishes for privacy. However, there are times when the safety of ongoing care can be enhanced and improved by involving the family. In these

instances, the psychiatrist owes it to both the patient and the family to take the extra time to obtain the patient's agreement for the family's involvement (Kaldjian et al. 2006; Leape and Fromson 2006).

The Patient's and Family's Role in Patient Safety

Clinicians should let patients and their family members know that their participation in patient care is important in assuring patient safety. The psychiatrist's job in this process is to foster a therapeutic environment that creates a sense of trust and comfort. The patient's job (and his/her family members' job) is to ask questions whenever an issue regarding care is unclear. Psychiatrists should teach patients that asking questions is a way to double-check the processes involved in their care. The psychiatrist's job, in return, is to allow for sufficient time during treatment for patients to ask questions and to answer thoughtfully, objectively, and tactfully.

Conclusions

Both psychiatrists and patients play important roles in fostering an environment of safe care. Patients should be encouraged to speak up whenever they have questions about their care. Clinicians should nurture a trusting therapeutic relationship, which in turn will foster frank and constructive exchange of mutual concerns.

Take-Away Points

- The job of assuring patient safety is shared by the clinician, the patient, and the patient's family.
- Encourage patients to take co-ownership of treatment.
- Ask patients to speak up whenever they have questions or concerns about their care.
- Respect confidentiality and HIPAA requirements when dealing with patients and their families, but don't use them as an excuse not to answer important patient safety questions.
- Provide enough time for patients and their families to ask questions.

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