The surgical milieu is an exquisite human laboratory which reveals a wide range of individual responses to anticipation of surgery and recovery. Each patient faces the stress of loss, potential disfigurement, body image change, fear of abandonment and the possibility of death. Medical students, physicians and surgeons interact with patients who are acutely vulnerable.

The student physician has a unique role as both observer and participant in the patient’s experience and, therefore, can have a decisive impact on patient care. Often the student feels isolated or irrelevant as a member of the surgical service, where major responsibility lies with the house staff and attending surgeons. Yet the student generally spends the most time with the patient before, during and after surgery.

During the preoperative clinical interview, when the patient is particularly anxious, the medical student can affect surgical outcome by attending to the patient’s cognitive, psychological and social concerns. Accepting the patient in a very human way and developing and using one’s capacity for empathy and effective listening will help establish the necessary rapport and support for the patient who faces surgery. A patient-centered approach using the biopsychosocial model maintains a human bond with the surgical patient. It is crucial to humanizing this profoundly technological encounter and advancing the healing process.

If the surgeon takes on the role of an aloof and detached technical expert, the patient usually feels more isolated and alone and may come to think of the surgeon as distant, cold and uncaring. This is not solely a problem for surgeons; it is a major educational and clinical dilemma in all of modern medicine. There is a need to be detached, objective and effective technically, and at the same time empathic, compassionate and caring. Every medical student struggles with this dichotomy in the development of professional identity. Osler addressed this issue in his classic book of essays for medical students, *Aequanimitas*, published nearly 80 years ago when he stated that the M.D. degree entitled physicians to a lifelong education in two spheres—the inner and the special. He spoke of the necessity of aspiring to both: inner education, a knowledge of one’s self; and special education, a knowledge of medicine.

It is most certainly true, as Dr. Robert Rothenberg* maintains in the classic study for laymen, *Understanding Surgery*, that “...the modern surgeon is just as concerned about the patient and his problems as the old-fashioned country doctor used to be.” However, as Rothenberg states, examinations and procedures, as well as the emotional implications of surgery. The decision to operate and the psychological preparation of the patient will be discussed.

In part two of the article in next month’s *TNP*, the operative period will be mentioned briefly, followed by the postoperative phase. The postoperative period is a highly complex re-entry into awareness of self, the body and the external world, a period that carries the potential for rapid psychological change. It is a time when the patient recovers from postsanesthesia delirium, anticipates and experiences loss and pain, hopes for a cure and for a caring relationship with a member of the healing profession.

### The Preoperative Period

The preoperative period, broadly defined, begins when an individual develops a condition that requires surgical intervention and ends at the point of incision. During this time, the patient, family and close friends begin to prepare psychologically and socially for the intensely stressful event. For the physician and surgeon, it is a period of diagnostic evaluation and psychological and physical preparation. For the patient, it is often a time of anxious reflection; there is usually a clear need for assistance in preparing for surgery. This is even more apparent when patients are to undergo emergency surgery.

Biopsychosocial evaluation and preparation of the patient is not just a nicety; it is critical to how the patient copes with surgery and recovers from it. Evaluating the patient’s mental status is very important. It has been shown* that patients who are emotionally disturbed preoperatively, particularly those who are depressed or anxious without admitting to anxiety, have a higher postoperative morbidity and mortality. Extensive review of the literature reveals the benefits of psychological preparation: surgical patients who receive preoperative interviews of a supportive and informative nature require fewer analgesics and leave the hospital earlier than controls. It has also been found* that patients who receive active and supportive preoperative care for open heart surgery have less postoperative delirium than controls (14 percent compared to 33 percent).

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*Dr. Rosen is director and Dr. Herrera associate director, Consultation/Liaison Service, Department of Psychiatry, University of Rochester Medical Center; Dr. Schwartz is director, Consultation/Liaison Service, Kaiser Hospital, South San Francisco, Calif.; Dr. Prescott is superintendent, St. Elizabeth’s Hospital, Washington, D.C.
The patient already has been prepared somewhat prior to admission. The patient's initial contact with the primary physician (usually an internist or family practitioner) generally includes some discussion of differential diagnosis and treatment options. If the patient has had a long-standing relationship with the doctor, trust and confidence usually have been established and will be carried over to the referred surgeon. Poor rapport with the referring physician results in a greater possibility for anticipatory anxiety. If the referring physician is able to describe what the patient will encounter, the patient will be less anxious.

However, psychological preparation for surgery involves more than good rapport and discussion of diagnosis and treatment. A biopsychosocial approach is a scientific one, a process whereby a psychosocial database is collected.

**Biopsychosocial Approach to Evaluating the Surgical Patient**

With the biopsychosocial approach the following questions must be answered in the preoperative period. The clinical vignettes that follow illustrate their importance.

- How does the patient understand the illness?
- What was the context in which the illness developed?
- What are the patient's fears and expectations regarding surgery?
- How has the patient reacted to surgery and hospitalization in the past?
- Does the patient have a supportive and meaningful relationship with the primary physician and surgeon?
- Does the patient have a strong and supportive relationship with family and/or friends?
- How is the patient feeling, thinking and behaving?
- How is the patient coping with the possibility of loss, pain and death? (This is a question all presurgical patients must face.)

**Clinical Vignettes**

**Patient I**

Ms. Abbot, a 34-year-old recently widowed woman with insulin-dependent diabetes mellitus, was on the medical service for evaluation and treatment of severe right-side rib pain of two weeks' duration. She was considered a "difficult" and "problematic" patient. After numerous diagnostic tests, the working diagnosis was "radicular pain syndrome" related to her diabetic condition. The medical team was not able to relieve this patient's pain with procaine injections and various pain medications. Numerous consultations were obtained, including ones from surgery and psychiatry. The medical student caring for Ms. Abbot felt her sense of desperation and was concerned about her fixation on surgery to cure her rib pain. The patient was fearful, felt helpless and appeared dejected.

In talking with her it was clear she was not only desperate, but severely depressed (this diagnostic impression was also arrived at by the psychiatric consultant). Her depression related directly to the recent and sudden death of her husband, who drowned in a boating accident six weeks prior to the patient's hospitalization. During this period, she was grief-stricken, lost ten pounds, felt tired and weak, had trouble sleeping, and felt hopeless. She had even thought of suicide, but couldn't do that because it would devastate her 9-year-old daughter.

The patient feared she had cancer and wasn't surprised when she was admitted to the hospital and underwent numerous tests to rule out "occult malignancy." The patient was certain the consulting surgeon was correct when he recommended her rib be removed. She believed her pain would be gone after surgery. The medical student tried to persuade the consulting psychiatrist to recommend immediate treatment of her depression (including transfer to an inpatient psychiatric ward) and to oppose the plan for surgery. The psychiatric consultant, unlike the surgeon and internist, believed her pain would still be there after surgery, and then the patient and her internist would go along with appropriate psychiatric treatment. The psychiatrist took a neutral stance regarding surgery, maintaining a "wait and see" attitude.

This patient's preoperative assessment was clearly inadequate. In her depressed state, she was afraid she had cancer although there was no evidence of malignancy. She had recurring dreams of dying and joining her husband. The internist and surgeon ignored psychosocial and psychiatric factors. The psychiatrist colluded with them but held out for a psychiatric diagnosis ("Have it your way now but I'll show you in the end who's right"). In the focus on the symptoms, disease and surgical removal of the diseased rib, the whole patient and her needs were neglected. The student tried to intervene, but to no avail. The surgical outcome will be discussed in part two of this article next month.

**Patient II**

Mr. Aralda was a 78-year-old mechanic who reluctantly retired at 70 only to take up leading tours for senior citizens. He was slowed recently by his wife's deteriorating medical condition. She had successful coronary bypass surgery but was unable to travel. Following his wife's recovery, he noticed a small amount of blood in his stools. His internist recommended he be hospitalized to diagnose his condition. After a sigmoidoscopy his doctor told him he had several polyps that looked "cancerous." He recommended these be removed surgically.

The medical student caring for this patient was concerned about the patient's overly anxious preoperative state. The patient firmly believed he had cancer and was going to die soon. In talking with Mr. Aralda it was evident he thought he had heard his doctor giving him a "death sentence." In actuality, his doctor had only said the polyps looked like they "might be cancerous," not that they were cancerous. Once this was clarified, the patient wished his doctor had underplayed the possibility of his having cancer and had stated that there was only a small chance (5-10 percent) that he might have cancer. The patient subsequently became tearful and said he was "worried" about his ill wife and the stress his illness and upcoming surgery would have on her. It turned out she was the only family support figure he had and vice versa. The patient's internist and medical student turned out to be key supportive figures who genuinely cared about this patient and his wife. A thoughtful and very skilled surgeon was selected who carefully went over with the patient what to expect from the surgery. The patient, a devout Catholic, was also able to draw strength...
from prayer. In addition, he was able to reassure himself about having surgery since he had successfully undergone surgery once before for the removal of gall stones. By the time surgery was imminent, the patient was calm and reassured: he joked with the medical student, who promised him a steak dinner after he recuperated from surgery.

Mr. Ariala, like Ms. Abbott, had a fear of cancer, but his was based on poor communication by an otherwise supportive internist. Fortunately, the medical student was aware of his overly anxious preoperative state. This prompted a thorough patient-centered interview which yielded valuable psychosocial data, dealt with the patient's concerns and adequately prepared him for surgery. We will also follow this patient's course in part two of this article.

Patient III

Ms. Semka was a 28-year-old successful attorney who lived with a young physician she was planning to marry. Quite accidentally one morning while showering, she felt a lump in her left breast. She ignored it until her boyfriend noticed it a month later. He suggested she see a surgeon he knew and respected. She thought about it for a week and then reluctantly agreed. She was scared but convinced herself it was nothing.

The surgeon was sensitive but matter-of-fact. He said it probably was benign, but could be cancerous. He recommended she have the lump excised. She talked it over with her boyfriend, who agreed with the surgeon. She remained unconvinced and went to three other surgeons, including one woman, who recommended the same thing. She returned to the first surgeon since she felt he was concerned and competent. She was afraid and talked at length with the surgeon about the possibility that it was cancer. She only wanted the lump removed, not her breast; the surgeon agreed. She was scheduled for surgery and admitted to the hospital.

The medical student caring from Ms. Semka was also a woman in her twenties. She sensed the patient's anguish and spent a lot of time talking with her in preparation for surgery. Her physician-boyfriend visited her infrequently and seemed aloof and anxious. This upset and depressed the patient. However, she did not want the medical student to talk to him. Likewise, she instructed the medical student and staff not to contact her family. She was sure she did not have cancer, so why trouble them? Nevertheless, she had trouble sleeping and worried about having cancer. She felt alone and believed the only person in whom she could confide was the medical student. Several times she broke down and cried. Once she demanded of the medical student, "Please tell me I don't have cancer."

Ms. Semka remained adamant about only wanting the lump removed and keeping her breast. The medical student was very understanding but tried to explain the value of removing the breast if the lesion was cancerous. Ms. Semka remained fixated on keeping her breast at all cost. This vignette illustrates how powerful denial can be. The medical student tried, albeit unsuccessfully, to chip away at the patient's denial and unrealistic expectations of surgery. The one positive aspect of her preoperative period was her acceptance of the medical student's outstretched hand of support and reassurance. We will discuss the importance of the patient's relationship with the student in part two of this article.

The Preoperative Interview

Interviewing a patient on surgical service can be difficult. Privacy is often lacking and monitoring equipment and nursing duties frequently interfere. A neighboring patient who is seriously ill may add more anxiety. Interviews are sometimes conducted in treatment rooms where reminders of the surgical procedure are present. If possible, the interview with the patient should take place in a comfortable, quiet and private area in order to reduce distractions that inhibit the free and natural flow of information. In addition, allow enough time for the patient to ask questions and share his or her worst fears.

The goal of the psychosocial evaluation is to obtain information that will help minimize stress and maximize recovery factors. The longer the time between diagnosis and surgery, the greater the opportunity for psychological preparation. The patient-centered interview provides an approach for evaluating the patient, while at the same time establishing rapport and providing support. As with Ms. Semka and Mr. Ariala, this doctor-patient contact may become a primary support mechanism if the patient lacks family and social support. In elective procedures more time is available for this process than in an emergency situation.

The specific psychological task in the preoperative interview is to assess and relieve preoperative anxiety, fear and depression. The preoperative anxiety that exists in anticipation of the operation, if excessive, can interrupt the body's integrity. Part of the preoperative anxiety concerns undergoing general anesthesia. There is also concern about the uncertain surgical outcome and the future. There may be profound fear of loss, death, abandonment, or disability.

How can the medical student, physician and surgeon accomplish this task successfully? The first skill to be acquired is empathic listening—being attentive to the mood and cognitive state of the patient. "What is my patient feeling and thinking?" The student caring for Ms. Semka illustrates that maintaining or acquiring the capacity to walk in the patient's shoes and imagining what it may be like to be that patient nurtures or develops empathy. Fortunately, during the years of clinical training, the medical student is confronted with countless opportunities to refine this interviewing skill with every patient "workup." We emphasize empathic listening, assessing emotional difficulties and attending to them as keys to successful preoperative preparation because the alleviation of fear, anxiety and depression is likely to reduce postoperative morbidity and mortality.

As illustrated in Mr. Ariala's case, an open-ended interviewing approach—focusing on the patient's understanding of his or her illness, expectations and feelings about the surgical procedure, and fantasies about the outcome—will often alleviate fear and anxiety. The medical student, physician or surgeon can clarify misconceptions. If a patient fails to express his belief that he has cancer, despite being prepared for a cholecystectomy, his anxiety may continue in spite of general reassurances that the risks of the surgery are minimal. But if the patient is asked, "What do you think may be wrong with you?" he has an opportunity to express this unrealistic idea, and the associated fear and anxiety can be alleviated.

It is important to avoid premature or false reassurance. To mention the existence of uncertainty about the outcome may be reassuring in contrast to statements like, "Everything will be all right, don’t worry."

Next, focus on the mood and emotional status. Observe the patient's appearance. Is there sadness and tearfulness suggestive of depression, as with Ms. Abbott? Is the patient expressing a sense of helplessness, hopelessness, or worthlessness? Has the patient given in to the condition prior to surgery and thus given up? If there is evidence of severe depression, the finding of vegetative symptoms such as insomnia, anorexia, constipation, or loss of sexual desire makes the diagnosis of a major affective disorder more likely. If patients are clinically depres-

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sed... psychiatric consultation and treatment are indicated. since the risk of postoperative morbidity is increased in patients with affective illness. Surgeons often intuitively postpone surgery for patients who are significantly depressed. On surgical services we have an opportunity to develop this empathic skill, that is, the capacity to sense the hopelessness, helplessness and worthlessness that a depressed patient feels. Being sensitive to the depressed mood allows the clinician to react with appropriate preoperative psychosocial and, if necessary, psychiatric intervention.

When the quality of the doctor-patient relationship allows for openness, empathy and supportiveness, the patient feels free to share his or her worst fears and fantasies. After rapport has been established with a patient, clear and direct descriptions of what the patient may expect in surgery should be elaborated upon. The patient should be told what the sensory experience will be like—what will be seen, heard and felt. Acknowledge that there will be pain, but that medication will be available to ease it. A description of the recovery room experience, or better yet, a visit there will help reduce anxiety.

Inquiries about the patient’s family members and about their attitudes and feelings toward the patient’s surgery are extremely useful. In obtaining a “family history,” it is important to identify not only what illnesses family members have had, but how the patient felt about them. A patient’s personal experience with surgery is influenced by the family experience. For instance, a parent’s death during an elective surgical procedure may have left the patient unrealistically fearful that he or she also may die during surgery. If a relative had a stroke or myocardial infarction during surgery, the patient may believe he or she will need cardiac or physical rehabilitation after surgery.

Family and friends are useful resources for the physician to involve in preparing the patient for surgery. The stress of surgery often promotes regression and increased dependency. If the physician involves the family and friends in the initial preparatory stages, much of the patient support may be provided by them. They will help reduce regression and dependency and promote more rapid recovery. The smaller the social support system, the greater the emotional demand on the referring physician, surgeon and nursing staff and, as shown in the three vignettes, on the medical student. In addition, family members may have their own questions, fears and worries about the patient’s surgery. They experience their own stress and anticipatory mourning related to feared surgical outcomes. Here again, the family history, if elicited, might reveal prior traumatic experiences with surgery that may influence current attitudes and reactions.

Finally, the anticipation of impending surgery has an impact not only on the psychological state of the patient and family but also influences other interpersonal relationships, as well as educational, vocational and leisure-time activities. Will the patient recover enough to return to work? Will a college student be able to complete his or her education? Will there be a return of physical function to allow the athlete to compete again? Will the woman feel sexually desirable after her mastectomy? Will the welder be able to work eight hours a day on his feet after a laminectomy?

The “success” of surgery ultimately depends on restoration of functional capacity, maintenance of self-esteem, continuation of interpersonal relationships, and return to productive work. If the focus of the preoperative interview is limited to only the damaged biological system, the opportunity for optimal patient care is lost.

References