The Dichotomy of Inpatient and Outpatient Internal Medicine The hospital environment has changed dramatically over the last few decades. Emergency departments and critical care units have evolved to identify and manage critically ill patients, allowing them to survive formerly fatal diseases. At the same time, there is increasing pressure to reduce the length of stay in the hospital and to manage complex disorders in the outpatient setting. This transition has been driven not only by efforts to reduce costs but also by the availability of new outpatient technologies, such as imaging and percutaneous infusion catheters for long-term antibiotics or nutrition, minimally invasive surgical procedures, and evidence that outcomes often are improved by minimizing inpatient hospitalization.

In these circumstances, two important issues arise as physicians cope with the complexities of providing care for hospitalized patients. On the one hand, highly specialized health professionals are essential to the provision of optimal acute care in the hospital; on the other, these professionals—with their diverse training, skills, responsibilities, experiences, languages, and "cultures"—need to work as a team.

In addition to traditional medical beds, hospitals now encompass multiple distinct levels of care, such as the emergency department, procedure rooms, overnight observation units, critical care units, and palliative care units. A consequence of this differentiation has been the emergence of new trends, including specialties (e.g., emergency medicine and end-of-life care) and the provision of in-hospital care by hospitalists and intensivists. Most *hospitalists* are board-certified internists who bear primary responsibility for the care of hospitalized patients and whose work is limited entirely to the hospital setting. The shortened length of hospital stay that is now standard means that most patients receive only acute care while hospitalized; the increased complexities of inpatient medicine make the presence of a generalist with specific training, skills, and experience in the hospital environment extremely beneficial. *Intensivists* are board-certified physicians who are further certified in critical care medicine and who direct and provide care for very ill patients in critical care units. Clearly, then, an important challenge in internal medicine today is to ensure the continuity of communication and information flow between a patient's primary care doctor and these physicians who are in charge of the patient's hospital care. Maintaining these channels of communication is frequently complicated by patient "handoffs"—i.e., from the outpatient to the inpatient environment, from the critical care unit to a general medicine floor, and from the hospital to the outpatient environment. The involvement of many care providers in conjunction with these transitions can threaten the traditional one-to-one relationship between patient and primary care physician. Of course, patients can benefit greatly from effective collaboration among a number of health care professionals; however, *it is the duty of the patient's principal or primary physician to provide cohesive guidance through an illness.* To meet this challenge, primary care physicians must be familiar with the techniques, skills, and objectives of specialist physicians and allied health professionals who care for their patients in the hospital. In addition, primary care doctors must ensure that their patients will benefit from scientific advances and from the expertise of specialists when they are needed both in and out of the hospital. Primary care physicians can also explain the role of these specialists to reassure patients that they are in the hands of the physicians best trained to manage an acute illness. However, the primary care physician should retain ultimate responsibility for making major decisions about diagnosis and treatment and should assure patients and their families that decisions are being made in consultation with these specialists by a physician who has an overall and complete perspective on the case.

A key factor in mitigating the problems associated with multiple care providers is a commitment to interprofessional teamwork. Despite the diversity in training, skills, and responsibilities among health care professionals, common values need to be reinforced if patient care is not to be adversely affected. This component of effective medical care is widely recognized, and several medical schools have integrated interprofessional teamwork into their curricula. The evolving concept of the "medical home" incorporates team-based primary care with linked subspecialty care in a cohesive environment that ensures smooth transitions of care cost-effectively.

Appreciation of the Patient's Hospital Experience The hospital is an intimidating environment for most individuals. Hospitalized patients find themselves surrounded by air jets, buttons, and glaring lights; invaded by tubes and wires; and beset by the numerous members of the health care team—hospitalists, specialists, nurses, nurses' aides, physicians' assistants, social workers, technologists, physical therapists, medical students, house officers, attending and consulting physicians, and many others. They may be transported to special laboratories and imaging facilities replete with blinking lights, strange sounds, and unfamiliar personnel; they may be left unattended at times; and they may be obligated to share a room with other patients who have their own health problems. It is little wonder that a patient's sense of reality may be compromised. Physicians who appreciate the hospital experience from the patient's perspective and who make an effort to develop a strong relationship within which they can guide the patient through this experience may make a stressful situation more tolerable.

Trends in the Delivery of Health Care: A Challenge to the Humane Physician Many trends in the delivery of health care tend to make medical care impersonal. These trends, some of which have been mentioned already, include (1) vigorous efforts to reduce the escalating costs of health care; (2) the growing number of managed-care programs, which are intended to reduce costs but in which the patient may have little choice in selecting a physician or in seeing that physician consistently; (3) increasing reliance on technological advances and computerization for many aspects of diagnosis and treatment; and (4) the need for numerous physicians to be involved in the care of most patients who are seriously ill.

In light of these changes in the medical care system, it is a major challenge for physicians to maintain the *humane* aspects of medical care. The American Board of Internal Medicine, working together with the American College of Physicians–American Society of Internal Medicine and the European Federation of Internal Medicine, has published a *Charter on Medical Professionalism* that underscores three main principles in physicians' contract with society: (1) the primacy of patient welfare, (2) patient autonomy, and (3) social justice. While medical schools appropriately place substantial emphasis on professionalism, a physician's personal attributes, including integrity, respect, and compassion, also are extremely important. Availability to the patient, expression of sincere concern, willingness to take the time to explain all aspects of the illness, and a nonjudgmental attitude when dealing with patients whose cultures, lifestyles, attitudes, and values differ from those of the physician are just a few of the characteristics of a humane physician. Every physician will, at times, be challenged by patients who evoke strongly negative or positive emotional responses. Physicians should be alert to their own reactions to such patients and situations and should consciously monitor and control their behavior so that the patient's best interest remains the principal motivation for their actions at all times.

An important aspect of patient care involves an appreciation of the patient's "quality of life," a subjective assessment of what each patient values most. This assessment requires detailed, sometimes intimate knowledge of the patient, which usually can be obtained only through deliberate, unhurried, and often repeated conversations. Time pressures will always threaten these interactions, but they should not diminish the importance of understanding and seeking to fulfill the priorities of the patient.

EXPANDING FRONTIERS IN MEDICAL PRACTICE

The Era of "Omics": Genomics, Epigenomics, Proteomics, Microbiomics, Metagenomics, Metabolomics, Exposomics . . . In the spring of 2003, announcement of the complete sequencing of the human genome officially ushered in the genomic era. However, even before that landmark accomplishment, the practice of medicine had been evolving as a result of the insights into both the human genome and the genomes of a wide variety of microbes. The clinical implications of these insights are illustrated by the complete genome sequencing of H1N1 influenza virus in 2009 and the rapid identification of H1N1 influenza as a potentially fatal pandemic illness, with swift development and dissemination of an effective protective vaccine. Today, gene expression profiles are being