

THE INFORMED PATIENT

A COMPLETE GUIDE TO A HOSPITAL STAY

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This book contains information that is intended to help the readers be better informed consumers of health care. It is presented as general advice on health care. Always consult your doctor for your individual needs.

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CHAPTER 1

Why You Need This Book and How to Use This Book

Why do you need this book? Honestly, it's because everyone ends up in a hospital sooner or later and very few of us have the knowledge, skills, and confidence to ensure the best possible care.

We have written this book in response to our observation that most individuals do not come into the hospital well prepared with either advocacy skills or an advocate to help them navigate an inpatient stay during this emotional time. Health care has become ever more complex with increased technology in the age of information. Health care providers are busier than ever before and are also inundated with changing technology, rapidly advancing treatments, and a heightened paperwork burden. As a consequence, more vigilance by the patient is required to remain safe.

SOME STATISTICS

Here are a few figures about hospital stays that may surprise or alarm you:

- There are 34.4 million hospital discharges per year in the United States alone, not even including the Veterans Health Administration system.
- The average length of stay for hospital visits is 4.8 days.
- Between 210,000 and 400,000 patient deaths a year may be attributed to preventable medical errors in U.S. hospitals.
- Ninety-nine thousand patients die as a result of hospital-acquired infections each year, according to the Agency for Healthcare, Research and Quality.

MEDICAL ERRORS AND BEYOND

Patient safety has become a major concern of the general public; policy-makers; and local, state, and national government. Frequent news coverage has been devoted to individuals who were victims of serious medical errors. In 1999, the Institute of Medicine published a book called *To Err Is Human*. This was a groundbreaking report because it exposed just how dangerous a hospital stay can be. It opened our eyes to the real risks of a hospital stay, asserting that ninety-nine thousand patients die every year from preventable medical errors, an estimate that has risen dramatically since 1999. When we talk about medical errors, we mean two different kinds. The first is an *error of commission*—a fancy way of saying that something specifically incorrect was done or given to a patient. An *error of omission*, on the other hand, means that the patient did not get the medication or procedure or provision of care necessary, or that something varied from what the medical profession calls the *standard of care*.

In its 2003 follow-up report, *Patient Safety: Achieving a New Standard of Care*, the Institute of Medicine emphasized the importance of standardizing and better managing information on patient safety to reduce the risk of harm and ensure good care.

A study in the journal *Health Affairs* showed that one-third of hospital patients have *adverse events* (unwanted and potential problems resulting from medical care), and approximately 7 percent are harmed permanently or die as a result. This study brought new attention to the safety issues that were originally brought to the forefront by the two Institute of Medicine books. Unfortunately, even though hospitals are making headway in the arena of patient safety, it is still unsafe to be hospitalized and will continue to be so.

WHY YOU NEED TO BE AN ADVOCATE OR HAVE AN ADVOCATE

Medicine as it is practiced now is so complex and time is so limited to health care providers that certain aspects of care in the hospital can be overlooked or mistaken. We want to make sure that things go as smoothly as possible by helping you become well informed and encouraging you to speak up when you have concerns.

Advocating for yourself or your loved ones in the hospital is not easy. Even if hospitals were perfectly run, immaculately clean, and staffed uniformly with kind and generous human beings, it would still be daunting and bewildering to be an inpatient. And this is because when we are ill or fear for our loved ones, we are emotionally vulnerable. This is true even for those of us who work in health care.

It is vitally important to be assertive (NOT aggressive). So many of us have learned to be unnecessarily deferential to doctors; this is particularly true of the older generation, whose members would not think of questioning the doctor. Times have changed. It is a mistake to blindly accept treatment or submit to tests recommended by your health providers; it is perfectly reasonable to ask questions and to be a participant in your own care. In fact, “shared decision making” is a concept that has been embraced by the medical community, and it relies on patients to be actively involved in their health care and to make decisions in concert with their health care providers. Increasingly, there is an emphasis on patient preferences and values to help medical professionals make the right choices suited to the specific needs of the individuals they care for.

The cornerstone of this book is that you, the patient, can become an active participant in your own health care story. Recently and fortunately, the medical field has moved away from a paternalistic approach that put physicians at the top of the hierarchy and you, the patient, at the bottom; you were expected to follow directions without questioning the doctor’s reasons and rationale. When it comes to choosing between treatment options, it is important for you to express your own wishes.

We want you to have the best possible outcome from a hospital stay; all patients have the right to insist that the health care providers and hospital staff do the very best by them.

WHAT YOU WILL LEARN

We are going to give you a great deal of information about what happens in the hospital: how modern hospitals are organized, the roles and descriptions of the various professionals and other hospital staff taking care of you, what tests you might encounter, common medications, how you can get help when you need it, and what you can expect during your stay.

HERE IS HOW YOU CAN USE THIS BOOK TO BEST ADVANTAGE

Think of this book as a necessary training manual. If you have a planned surgery or have elderly or ill family members, you will certainly have to deal with a hospital visit. Given the complex nature of hospital care, you will need to educate yourself in order to be prepared. This book is intended to be a valuable resource to help you navigate the turbulent waters of hospital issues and problems. Managing the hospital experience for yourself or your loved one is your new job. Now you will begin training so that you will be prepared and ultimately successful.

You can pick and choose topics according to your need. You do not have to read this book in the order in which it is written or in its entirety. You can start anywhere, depending on what your specific need is. What you will find is a kind of reference book, filled with details and information. However, there are certain ideas and principles that we feel are so intrinsic to your success as an advocate that we have highlighted them as tips and stressed them for emphasis.

Tips

We have emphasized and repeated certain elements that may seem obvious but that in the setting of caring for yourself or a hospitalized loved one you may forget. You will see these tips interspersed throughout the text. They are to remind you about your role in helping yourself or your family member.

Sidebars

When we want to delve a little more deeply into a topic, we present sidebars. Usually this is a more detailed explanation of something discussed in the section adjacent to the sidebar. Or it might be an insight about hospital workings not typically known to the general public.

Vignettes

Of course it is not possible to describe all the conceivable situations patients and their families will experience during an inpatient stay. We

have chosen some typical types of scenarios to paint a picture of the universal questions and qualms that you might have. When appropriate, at the end of the clinical vignette, we propose a solution to a commonly encountered problem.

ABOUT TERMINOLOGY

The “Patient” and the “Doctor”

Throughout this book you will see us refer to “the patient,” as “yourself,” “your family member,” or “your loved one.” That person could be you, a spouse, a child, a parent or other relative, a friend, or a neighbor. In certain instances, a patient will be able to advocate on his or her own. More often than not, because of fear, pain, or confusion, patients find themselves at a loss to assert themselves when hospitalized. For convenience, we will use the terms “you,” “your patient,” “the patient,” and even “your loved one” to mean the person for whom something needs to be done.

Likewise, we will alternate between using the terms “doctor,” “physician,” “health care team,” and “health care provider” to mean the licensed individuals who are responsible for your care. Some of them may be medical doctors (MDs), doctors of osteopathy (DOs), nurse practitioners (NPs), nurses (RNs), or physician assistants (PAs). When we refer to “health care professionals,” we include social workers, respiratory therapists, and physical therapists in addition to the providers mentioned above.

Vocabulary and Alphabet Soup

Not only is the world of medicine confusing and hard for the layperson to understand, but it has its own language, made up of Latin and scientific terms. To deal with all this vocabulary, medical professionals and hospital workers abbreviate like crazy. And here’s a little secret: very often the abbreviations used by one specialty mean something completely different for another specialty. For example, ARF could mean acute renal (kidney) failure or acute respiratory (breathing) failure. Understanding some basic terms and abbreviations can help you navigate the hospital stay. You will see these terms in italics, often with an explanation afterward in parentheses. And there is a handy glossary at the end of this book.

Vocabulary and Terms

In the medical world, some words that we are familiar with in everyday life take on a particular meaning. You will hear certain words over and over again: “assess,” “evaluate,” “manage,” “follow,” “indication,” “attending.” It may be difficult to make sense of what you are hearing, particularly at first. Further, there is a medical lexicon unto itself filled with Latin and scientific words, and it will be impossible to understand all the medical talk around you. We have italicized many terms, explained their meaning inside the world of the hospital, and put them in a glossary at the end of the book for easy reference.

TIP Take Notes

Take notes: Write everything down!!! We cannot emphasize this advice enough. Use the pages in the book if you wish or carry a notepad. No one can integrate medical information during a serious illness or trauma, and no one expects you to remember what the doctor says. We strongly suggest that you compile questions to pose to your health care providers and that you write down the information they give you to help you understand what it is happening and when it will happen.

CHAPTER 2

The Changing Landscape of Medicine

Almost everything about how medicine is practiced in the United States and the developed world has changed over the past twenty years: there has been a proliferation of new tests, new technology, new medications, and new specialties. Thanks to these improvements, along with better nutrition and preventive care, the population is living longer. Along with this extension in life expectancy come more medical problems. It is impossible for doctors, much less laypersons, to keep up with all these changes. More difficult still, in the new paradigm the patient is the consumer. To be an uninformed consumer when it comes to health care puts you at a distinct disadvantage.

We are all bombarded with print, TV, radio, and Internet advertisements for medications, doctors' practices, medical technologies, specialized procedures, and even specific hospitals. Everyone is selling wares in the medical marketplace. And everyone wants your business. Health care is very, very big business. It didn't use to be this way. Your doctor knew what medications you needed and you followed **his** (emphasis intentional) advice. You didn't question, and you didn't think about other options or choices. You didn't have to "prepare" for a doctor's visit or trip to the hospital by reading up. You didn't have to research which medications would be best for you. In short, you were not a partner in your health care, nor were you an informed consumer. But much has changed, and nowhere are the changes more evident than in the hospital. Most patients are diagnosed by laboratory results and imaging

techniques. Physical diagnosis is a dying art. Decisions about patient care may be made in a room far away from the patient instead of at the bedside.

MORE CHANGES: HOSPITALISTS VERSUS GPs AND FAMILY DOCTORS WHO COME TO THE HOSPITAL

Among the biggest changes in medicine is that more and more often, there are doctors who work **ONLY** in the hospital and do not see patients on the outside. These doctors are called *hospitalists*. This movement has mostly been in general internal medicine (practitioners we used to call GPs, general practitioners, or family doctors), but it has been so successful that now there are pediatric and neurology hospitalists, as well as hospitalists *managing* (taking care of) medical issues for surgical patients. This is a trend that is here to stay. It has proven to be efficient and been demonstrated to improve care, although it may seem more than a little impersonal to patients and their families.

What this means is that the doctor, *generalist* or *specialist*, you see for office visits may not be seeing you in the hospital at all, or if so, less frequently. Even if a hospitalist does not take care of you, the likelihood is that if you see a doctor in a large group, the junior physician of the group, even if he or she is not your own doctor, will be looking in on you in the hospital.

Primary Care Provider (PCP) Can Be Any One of the Following:

General practitioner—that is, an internist, either MD (medical doctor) or DO (doctor of osteopathy); family practitioner (FP); nurse practitioner (NP); or physician assistant (PA)

Specialist Can Be in Any of the Subspecialties of Internal Medicine:

Allergy and immunology, cardiovascular disease, critical care medicine, endocrinology, diabetes and metabolism, gastroenterology, geriatrics, hematology, hospice and palliative medicine, infectious disease, nephrology, oncology, pulmonary disease, rheumatology, and sleep medicine

RAPPORT AND COMFORT VERSUS EFFICIENCY AND QUALITY CARE

Although the reliance on hospitalists may seem impersonal to you, it does allow your *primary care provider (PCP)* or general practitioner to give you more attention when you are seen in the office. In addition, it turns out that there really is quite a difference between the doctoring skills needed in the hospital and those needed in the office or clinic. There is now so much to learn in medicine that this new kind of specialization makes very good sense and ultimately saves you money by keeping health care costs down. While some internists can successfully manage both arenas, many struggle to find the right balance.

You may find it somewhat off-putting to be cared for by a complete stranger rather than your own primary care provider, someone with whom you have had a relationship for years. However, the doctors who work exclusively in the hospital are really well equipped with knowledge and training to take the best possible care of you. On an interpersonal level this may be of little comfort to you when you or your family member is ill.

The new system has proved to be better for patients and doctors alike, and you can remain confident that patient safety and well-being are enhanced by allowing certain doctors to focus all their attention on taking care of hospitalized patients.

OTHER PRIMARY CARE PROVIDERS

There has been a large growth in a new kind of health care provider to help relieve the tremendous pressure on physicians to evaluate and treat patients. Since the mid-1960s and the passage of Medicare and Medicaid legislation, there has been a chronic shortage of primary care physicians in the US health care system. Other health care providers have picked up some of the load. *Nurse practitioners (NPs)*, *registered nurses (RNs)*, and *physician assistants (PAs)* all have had specialized training to take care of patients in partnership with (and sometimes instead of) physicians. In most states, according to regulations, NPs and PAs are licensed to write prescriptions in the same manner as doctors.

Although there are many critics of these terms, nurse practitioners and physician assistants are sometimes referred to as *midlevel providers* or *physician extenders*. We present these terms for completeness, since you might hear them during your hospital stay, but we will not be using them in the remainder of the book. Nurse practitioners and physician assistants have been termed mid-levels because their training is less than that of doctors and the level of health care they are licensed to administer is different from that of RNs. They have a minimum of a bachelor's degree, and most have also completed graduate or master's-level education.

HIPAA

By this point most people have run into the HIPAA privacy law, which was put into effect in 1996. HIPAA stands for the Health Insurance Portability and Accountability Act and was signed into law by then president Bill Clinton. HIPAA was designed to protect personal medical information from getting into the wrong hands. Although this law creates extra paperwork and sometimes acts as a barrier that prevents families from obtaining information in the hospital, it does protect patients' privacy. Particularly in this age of electronic

HIPAA

Although the HIPAA rules protect patient privacy, it may be advantageous to share health information with other individuals. There are several ways in which a family member or legally authorized guardian may obtain HIPAA information about a patient. The patient who signs the HIPAA form is able to designate who else may see this information. A person can make health care decisions for another individual using a health care power of attorney. In that case, the person is considered the "personal representative." Patients who do not have cognitive capacity to take care of their own medical needs will have another individual sign on their behalf. Of course, minor children automatically assign HIPAA privilege to parents and guardians. In emergency situations, the private health information may be revealed to a family member or friend.

information, there is a need to be extra careful about a person's individual data or information. In fact, what HIPAA does is protect the security and privacy of your medical data. So the HIPAA forms are beneficial to you, and you should not hesitate to sign them.

HEALTH SYSTEMS AND HOSPITALS: THE ACUTE OR SHORT-STAY HOSPITAL AND BEYOND

How each hospital works and is organized and how it is run—its *culture*—is different, and therefore your experience will vary from hospital to hospital. Hospital culture is influenced by many factors—for example, by whether the hospital is public, private, for profit, corporate, or owned by a religious entity. Additionally, hospitals can be grouped by the level of care they provide and the degree of complexity and intensity of services. To further complicate the classification of hospitals, there has been a trend to centralize services. What this means is that while your local hospital might once have provided all types of services (*obstetrics*, *orthopaedics*, medical illness care, and so on), these days you might find that to conserve and concentrate services and to improve efficiency, the women's services (*obstetrics* and *gynecology*, or ob/gyn for short) have been located in one hospital while the orthopaedic (fracture repair; knee, spine, and hip surgeries, for example) have been put in another hospital. Although it may seem inconvenient to you, this concentration of expertise and specialized care almost always serves the patient more favorably.

Increasingly, you will hear hospitals called *medical centers* or even “centers.” This usually denotes a hospital with many different kinds of services to offer. At the top of the heap is a *health system* or *health care system*. A health system is a group of hospitals and health care facilities (which might include rehabilitation centers, outpatient offices, and nursing homes) that is owned and managed centrally. The emergence of health systems is a huge trend and, like so many other enterprises, is driven, unsurprisingly, by economics. The simplest way to explain this is to think about buying things in bulk. Just as people will often go to a big-box store to save money, it turns out to be cheaper to

purchase medical goods and services in large quantities. As a result, large and small hospitals have chosen (or been forced, in some cases) to join a health system to continue to operate at a profit.

To describe the phenomenon of health care systems and explain hospital types, we would need to write several books. Here we will instead briefly describe some hospital types so you will better understand what to expect.

Community Hospital

A *community hospital* is almost exactly what it sounds like: it is situated in your town or county and it is your local go-to place for illness and accidents. It provides a variety of services but not necessarily at the highest, or *superspecialization*, level. For routine care, the community hospital is ideal. Examples of these kinds of services are delivering a baby, setting a broken arm, treating you for pneumonia or flu requiring an inpatient stay, and even assessing your chest pain. Some people feel that the care is more personalized and less cold at the local community hospital. You might encounter people you know from your town or area, both as workers and as patients. Of course, the local community hospital is your first stop if time is of the essence, whether you arrive under your own steam or by ambulance. If you turn out to have a more complicated situation or need a certain type of procedure, your doctors will *refer* you to a higher-level hospital. This referral happens all the time, if the equipment, technology, or staff at the community hospital cannot fix the problem.

Secondary Care Hospital

We hear less talk about the *secondary care hospital*, but it exists as an intermediate step between community and tertiary care. There is more specialized care than in the community hospital but not nearly what you will find in a tertiary care center.

Tertiary Care Hospital

A *tertiary care hospital* offers a variety of highly specialized services and equipment, in addition to general medical, surgical, and obstetrical care, and usually has many medical specialties represented. If your medical

problem or type of surgery is complicated or high-risk, your doctors may refer or transfer you to this type of facility. Some examples of the kinds of services you might find in a tertiary care hospital are open heart surgery, organ transplants, a *neonatal intensive care unit*, and a level-one trauma unit. Some tertiary care hospitals also have *burn units*. There will be differences in the services offered between hospitals because certain tertiary care centers specialize in certain services while others specialize in different services. You will not find organ transplant services or burn units available at all tertiary care centers since these specialties require very specific resources and certifications, but you will likely find a neonatal intensive care unit (for high-risk pregnancies with possible complications for the mother or fetus) at all centers.

University Hospital or Academic Medical Center

A *university hospital* is integrally associated with a medical school. The physicians who practice here are also professors at the school. There is likely to be research activity as well at this type of hospital. A university hospital is always a teaching hospital because its mission includes training new physicians and other health care professionals.

Teaching Hospital

Many types of hospitals have a teaching component, from community up through highly complex university hospitals. Physicians, nurses, NPs, PAs and other health care professionals and personnel spend some time learning their craft in a classroom, but the real learning happens in the practice environment with actual patients. In a teaching hospital, physician trainees, called *residents* or *house staff* or *house officers*, will be involved in your care. In a *teaching hospital* you will also encounter medical students, nurse trainees, and other health professionals getting their hands-on real-life training.

Rehabilitation Facility (Rehab)

While the hospital is called an *acute care facility*, the *rehabilitation* center is associated with care for patients who need ongoing therapies but who

do not require hospitalization. Rehab centers are *subacute facilities* that employ a host of health professionals under the direction of a physician. You will find occupational therapists, speech pathologists, social workers, psychologists, physical therapists, and physiatrists (rehabilitation doctors) at these facilities. The purpose of rehab is to restore patients to as high a level of functioning as possible before sending them home. Very often, patients who have such routine surgeries as hip or knee replacement will need a stay in rehab to learn new ways to use their muscles with a new *prosthetic* (artificial) joint in place. People who have had a stroke also often need rehabilitation, particularly if there has been significant damage from the stroke.

Skilled Nursing Facility (SNF or Nursing Home)

A *skilled nursing facility* is another type of subacute facility and is often housed in the same building as a rehab center. Many patients, particularly older ones, experience a steep decline in their general health as a result of being ill and being hospitalized. These patients might require a higher level of care than can be found at home or in the rehab center, such as IV medications, special feeding procedures, or close monitoring. Patients may be discharged to a skilled nursing facility even if they have been living at home prior to the hospitalization. Sometimes a stay in the SNF is temporary and is a transition to a major life change, requiring extra help and nursing visits at home. Other times, it is a semipermanent housing situation since, as a result of illness or age, patients cannot take adequate care of themselves. Patients with advanced dementia often require skilled nursing care.

LINKING YOUR INFORMATION: THE ELECTRONIC MEDICAL RECORD

Health systems and hospitals are undergoing another huge change in converting from paper charts or medical records into electronic media. As more and more hospitals adopt what is known as the *electronic medical record (EMR)*, there should be less need to repeatedly give your information about medical history and medications to various hospital staff

along the chain. Your data or information will be entered into a computer, and then doctors and nurses and other health professionals who have authorized access can check your records to find out your status without having to ask you again. When the system works, there will be communication between different entities in a health system. So, for example, if you have multiple hospitalizations within one health or hospital system, your health care providers will have access to your previous health issues if you are readmitted. This system should make things easier, but as in all things technological, there are bound to be glitches and system outages. Further, many hospitals have not yet adopted this method of acquiring and sharing information. Since the manner in which your medical information gets passed along between medical professionals is critically important, we will have more to say about this in the chapters ahead.

CHAPTER 3

The Emergency Department Experience

WHY AM I NOT BEING SEEN? I WAS HERE FIRST

No place in the hospital is as baffling and as stressful as the emergency room (ER, but also called the emergency department, or ED). There are 136.3 million ER visits each year in the United States. Many patients without access to health care use the ER as their source of primary care. What this means is that people with many different kinds of health problems come to the emergency room: from children with stomach viruses to very sick or injured patients brought in by ambulance with major trauma, heart attacks, or strokes. Then there are the patients who have been sent in by their doctor to be admitted to the hospital through the portal of the ER. What a system! Understanding this system will be helpful in figuring out why, if you have arrived at 4:00 p.m., sent by your doctor who is concerned that you need to be admitted, you are still sitting in the waiting room at 10:00 p.m. and no doctor or nurse has seen you.

REGISTRATION AND TRIAGE

Registration and *triage* processes are different in every hospital, and the order in which events happen may vary. When you arrive at the emergency room, unless there is an extreme emergency, the first thing that happens is registration. In the registration process, information about name, address, next of kin, and insurance is collected. Once this process is complete, you

may believe you are on your way to being seen by the medical staff. But in fact, early in the visit, a *triage nurse* will evaluate you to determine how serious the medical situation is and how quickly you must be seen by a physician or other health care provider. A level of urgency will be assigned. However, no matter what order is assigned to incoming patients, the minute a more seriously ill patient enters the emergency room door, the order can shift. Emergency room triage is not done on a first-come, first-served basis. Certain conditions warrant immediate medical attention. Severe trauma, heart attack, acute stroke, respiratory failure (difficulty breathing), and lack of consciousness are just some of the more serious conditions that will be tended to first. A long wait can be frustrating to a patient who is hurt or feels miserably sick. However, triage nurses are very good at their jobs and are specifically trained to make these decisions. They also have tools to evaluate the seriousness of the condition.

The only instance in which it might be advisable for you to be very assertive with the ER staff is if you or your loved one has experienced a major change in status since being triaged by the nurse while in the waiting room. Some examples might be loss of consciousness, trouble breathing,

TIP Speaking Up When Your Condition Has Changed or Worsened

If you or your family member suspects that there is a change in your condition that warrants immediate medical attention, it is appropriate to be proactive and notify the nearest medical professional or the clerk at the nursing station. This is the time to request that the nurse or medical provider return to the patient to determine if immediate intervention is necessary. You might say, for example, "I am here with patient X and we are very concerned that his condition is worsening." Here it is appropriate to be specific. If there is more bleeding or increased shortness of breath, say so. If there is a sudden dangerous situation (loss of consciousness, inability to breathe), please call for help in no uncertain terms. Remember that in your role as advocate for yourself or for your loved one, if there is legitimate concern, it is imperative that you be given the attention you deserve, and in the middle of a busy emergency department, you may have to ask repeatedly.

new chest pain, or major bleeding. At this point, someone—either you or your family member—**must** let staff know that there has been a change in your condition.

THE WORKUP

The *workup* is medical terminology for finding out what is troubling the patient. It is done through a variety of methods, which, taken together, give clues to the doctors, nurses, and other health professionals about how to *manage* (take care of) the patient. There are several elements to the workup: the all-important *vital signs* (from the Latin *vita*, meaning life), history taking, blood and urine samples, review of current medications, and imaging studies such as *X-ray*, *CT scan*, and *ultrasound* to obtain images of the patient's internal organs, muscles, bones, and tissue.

TIP Hand Washing

Do not be afraid to ask if the person taking care of you, touching you or your medical equipment, has cleaned his or her hands. You might say something like, "I've noticed all sorts of signs suggesting I ask people if they have washed or cleaned their hands. I'm sure you have, and I didn't notice, but I would just like to make sure."

HISTORY TAKING IN THE ER—WHAT IS A HISTORY ANYWAY?

Along with information about current medications (see next topic), finding out about what health conditions you have is often the key to solving what landed you in the ER in the first place. Sometimes patients come in with obvious troubles. For example, if a person has been in a *motor vehicle accident (MVA)* and has cuts, bruises, or broken bones, the problems are evident to the staff and they will know what to do. However, for patients who have symptoms that can be caused by many different kinds of *underlying conditions* (existing medical illnesses), knowing about your

history of illnesses, chronic diseases, or previous surgeries will help guide the medical professional in making decisions about what needs to happen next. For example, patients who have a history of high blood pressure are at greater risk for stroke or heart attack than other people.

Every clue that the doctors and nurses can gather is important. Essential information comes not only from how the patient is feeling at the moment and what the current *chief complaint* (the medical problem that causes an individual to seek treatment) is but also from the accumulation of illnesses or conditions in the past. Sometimes, particularly if you're feeling crummy, it's very annoying to have to tell about a surgery to remove your tonsils that happened fifty years ago. However, every question that is asked is intended to prompt you to reveal as much about your situation as possible.

Some patients with very complicated medical histories carry around typed pages that list their illnesses, date of diagnosis, and the names and phone numbers of the doctors who treat them for these conditions. Surgeries can also go on this list, along with the dates when they were performed. Many diseases or conditions seem to disappear for years but can recur, which is why knowing the date of occurrence matters so much. **The importance of a good history cannot be overstated.** The doctors and nurses really do want to hear details and in fact need to have them so that they can move ahead with the best possible care for you.

TIP Before You Need to Go to the ER . . .

Put together a clear and concise medical history with dates, type of illness and surgery, and the names of all your doctors, including your specialist providers. Keep this list in your wallet for emergencies. Keep a separate list with your CURRENT medications—with doses. These simple preparations will save much time and aggravation during a stressful emergency room encounter.

MEDICATIONS AND MEDICATION RECONCILIATION

There is no way to exaggerate the importance of providing an accurate list of your current medications, herbal supplements, and even vitamin

supplements. The best way you can help yourself or your family member is by maintaining a typed list of all current medications, the doses, how often you take them, and for how long you have been taking them. **This list should be kept in your wallet at all times.** If you do not have a list, try to remember to grab the medication containers or pill minders before you leave home, or the name and phone number of your pharmacy. These medications provide a tremendous amount of information to the physicians and nurses taking care of you in the hospital, particularly if they are meeting you for the first time. From your medication list, your hospital caregivers will be able to determine a great deal about your health conditions, including any chronic diseases you have.

Moreover, there are certain medications that will affect treatment decisions. Consider these common scenarios, which underscore why it is vitally important to maintain accurate and up-to-date lists of medications and doses.

Blood Thinners/Anticoagulants

Warfarin (Coumadin) is a **blood thinner** (also called an **anticoagulant**). This type of drug has been a lifesaver for people with **atrial fibrillation** (an irregular rhythm of the heart), stroke, blood clots, and certain kinds of mechanical heart valves. However, since it thins the blood, it has the tendency to make people bleed more than they would if they were not taking it. Therefore, medical staff must know if a patient is on blood thinners, especially in the case of trauma or if the patient must go to surgery. You also may require a different kind of medication or blood product to “unthin” your blood if you come in with a bleeding illness. Be sure you know why you are taking a blood thinner. What condition do you have that the blood thinner is treating?

The decision by a physician to **hold** (discontinue, at least temporarily) a blood thinner will vary according to the **indication** (reason) for which the thinner is given. It is considered much safer to stop a blood thinner if it was given for atrial fibrillation than if the patient has a mechanical valve in the heart.

Diabetes Medications and Insulin

Millions of people have insulin-dependent diabetes; if they were to come off their medications, serious health consequences would result. It is

especially important for the doctor to know the kind of insulin, the dosages, and the last time it was taken. Many people who have diabetes take pills to help control their blood sugar. It is also critically important for the doctors and nurses to know about these medications, since some cannot be given during acute illnesses such as infection and heart failure. These medications may cause very low blood sugar if the kidneys are not functioning properly, and some may need to be held (discontinued or stopped) if a CT scan with contrast dye is required.

Antibiotics

The discovery of antibiotics has saved millions of lives by preventing life-threatening bacterial infections. Yet, as is the case with many medications, antibiotics may produce side effects. Most commonly, they are known to cause diarrhea but can sometimes have more serious side effects such as breathing problems. If a patient comes in with difficulty breathing due to an allergic reaction from an antibiotic, furnishing the information about the medication will save a great deal of diagnostic testing and unnecessary workup. Diarrhea, particularly that caused by the bacterium *Clostridium difficile* (commonly known as *C. diff*), can be a serious complication of antibiotic use in elderly people or in people with *compromised* (unable to fight off infections) immune systems (such as people with HIV and those having *chemotherapy*).

Blood Pressure Medications

Many blood pressure medications can affect both blood pressure and heart rate and therefore can result in multiple side effects such as fatigue and dizziness. The health care team needs to know about these medications and whether there have been any recent adjustments in the dosages.

Heart Medications

Some people have a condition called *congestive heart failure*, and many of them are taking multiple medications. Of particular concern to the health care provider is the “water pill”—often furosemide (brand name Lasix). This medication is often adjusted in the setting of *acute* (severe or sudden) shortness of breath and heart failure. It is critically important for the doctors and nurses to know what the patient’s usual dose is.

Psychiatric Medications

People who have a history of common psychiatric illnesses such as depression and anxiety may be reluctant to talk to the health care provider about these medical problems because they feel embarrassed. Medical professionals are trained to understand that a psychiatric illness is a medical illness like any other. Because psychiatric illness is often treated with medications, and because these medications can lead to very serious side effects, including seizures, if stopped abruptly, medical professionals need to know about any psychiatric medications the patient is taking, and any recent changes in those medications or the doses.

How Your Health Providers Ensure That You Are Taking the Right Medications

The process called *medication reconciliation* (called *medrec* in the hospital) means that all the patient's medicines, both prescription and over-the-counter (including supplements, vitamins, and complementary and alternative products), are listed in one place with dosing amounts and times so that the health care provider (and pharmacist) can look for possible interactions or mistakes in dosing and can avoid duplications of similar medication types. Patients frequently come into the hospital already on a regimen of drugs; some of these medications will remain, while others will be changed or eliminated, depending on the diagnosis. In addition, during the course of the hospital stay, you

Medication Reconciliation

Medication reconciliation as defined by the Joint Commission (a United States-based not-for-profit organization that gives accreditation to health care organizations) is "the process of comparing a patient's medication orders to all of the medications that the patient has been taking." This reconciliation is done to avoid medication errors such as omissions, duplications, dosing errors, or drug interactions. It should be done at every transition (change) of care in which new medications are ordered or existing orders are rewritten.

can expect to have your medications adjusted as new conditions are discovered and as you begin to recover. Medication reconciliation is an ongoing process that is refined continuously throughout the hospital stay.

This system of checks and balances is very important to protect your safety. Careful vigilance on your part and in collaboration with the doctors and nurses can often prevent overprescription of medicine, particularly after discharge. We urge you to become involved and to be aware of the list of your medications at every point along the continuum of the hospital stay and afterward. Do not forget to include any herbal supplements and vitamins that you are taking.

DIAGNOSTIC TESTS IN THE ER

Once the hospital staff has gathered information about the history and medications, it is likely that some kind of testing will have to be performed. Some of these tests are very benign, while others can be uncomfortable or *invasive*. Increasingly, patients are diagnosed in the ER through testing and imaging techniques. A doctor or other health care provider may or may not perform a physical examination right away; they may take a history and order diagnostic tests before examining you.

Below is a brief description of some common tests you might encounter in the ER, organized in alphabetical order after the all-telling and highly important vital signs. For a complete description of these and many more tests and procedures, please refer to chapter 8.

Vital Signs: Temperature, Blood Pressure, Heart Rate and Pulse Oximetry

Most likely, soon after you arrive, the triage nurse will perform this group of simple tests. Your temperature will be taken by mouth to see if there is a fever, a blood pressure cuff will be wrapped around your arm, and the nurse will listen with a stethoscope to hear blood pressure. Your wrist pulse may also be taken. *Pulse oximetry* will be performed on the finger to see if your blood has enough oxygen.

Other Tests

Blood Tests (Blood Work)

Often, **blood tests** will be done since there is a lot of information about the general state of health provided by the blood: signs of an infection, cardiac (heart) enzyme levels, anemia, liver problems, and elevated sugar are just a few of the conditions that can be diagnosed by the blood. Depending on what you have come in for, the blood tests might be very specific. Some blood results can be seen immediately, while others take hours, even days to be determined. In serious situations, treatment is never delayed while waiting for blood test results.

Radiograph (X-ray)

Radiographs (X-rays) are photographic images using electromagnetic waves to look at the internal composition of something. Any patient suspected of having a broken bone will undergo X-ray evaluation. Also, if you have severe abdominal pain, you may undergo an X-ray to look for a blockage in your gastrointestinal tract. It is standard policy in many hospitals for all adult patients getting admitted to the hospital to undergo a **baseline** (the first version of a test, against which future and subsequent versions will be compared) chest X-ray as well. The staff person who will administer the X-ray is called a **radiology technician** (or **tech** for short). You might be able to remain in your ER room or cubicle for this test if portable X-ray machines are available. If not, you will be transported to an X-ray room, where you will be given a heavy shield made of lead to protect the parts of your body that do not require imaging. You may be asked to lie down, sit, or stand, depending on the type of X-ray needed.

Computed Tomography (CT) or Computed Axial Tomography (CAT) Scan

A **CT scan** is useful as a way to see beyond what an X-ray can see. While an X-ray can usually determine if there is a broken bone, a CT scan can see inside to the internal organs. If you came to the hospital with trouble breathing, a CT scan of the lungs may be better able to see pneumonia, fluid in the lungs, or perhaps a **pulmonary embolism** (blood clot in the lungs) than an X-ray would. If you came to the hospital with abdominal pain, a CT scan may be better able to see a blockage in the intestines or inflammation or infection such as **colitis** (infection of the large bowel).

Depending on the reason or indication for your CT scan, the doctor may ask you to drink a large quantity of a flavored liquid. This substance is a contrast material that helps to differentiate the organs being viewed. The type of CT scan will be determined on the basis of the symptoms, suspected illness, and the safety of the test for you. If there is a problem with the kidneys, a CT scan with intravenous (IV) contrast might not be a suitable test. The doctor will make this decision after weighing all the pros and cons. Since CTs are made of many X-rays, there has been concern about exposure to too much radiation, which may be harmful. There have been tremendous improvements in reducing the amount of radiation for certain CT equipment; however, not all hospitals have acquired these newer machines. If you have had repeated CTs in the past, you may want to discuss with the doctor whether another technology form can be substituted.

Magnetic Resonance Imaging (MRI)

While CT scans are more suited for bone injuries, lung and chest imaging, and cancer detection, a *magnetic resonance imaging* test (*MRI*) is better suited for muscle, tendon, or ligament problems, spinal cord issues, and brain tumors. Fortunately, an MRI does not have the radiation exposure of a CT scan. Unfortunately, it usually takes about thirty minutes to perform, whereas a CT scan takes five minutes. In addition, many hospitals do not have open MRI equipment, and some patients find the closed MRI setup claustrophobic, since you are placed on a narrow board and your body is put through an imaging machine in a confined space.

Telemetry

Telemetry monitoring is continuous heart monitoring. The nurse will place stickers on your chest and limbs and will attach them to some kind of recording device. If your complaint is chest pain, it is likely that there will be telemetry monitoring. Other reasons for this monitoring include *acute heart failure exacerbation* (worsening of the heart's condition), *syncope* (fainting or passing out), or an *unstable arrhythmia* (abnormal heart rhythm).

Lumbar Puncture (Spinal Tap)

Lumbar puncture is a procedure in which a needle is inserted into the spinal canal to extract some fluid for analysis. It is useful to diagnose certain