# Medical Wisdom and Doctoring

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The Art of 21st Century Practice

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Knowledge and wisdom, far from being one,
Have oft-times no connection. Knowledge dwells
In heads replete with thoughts of other men;
Wisdom in minds attentive to their own.
Knowledge is proud that he has learned so much;
Wisdom is humble that he knows no more.
From The Task, by British poet William Cowper (1731–1800)

Medicine can never abdicate the obligation to care for the patient and to teach patient care.

A quote from American medical educator and editor Maurice B . Strauss (1904–1974). From: Medicine 1964;19:43.

To realize one's destiny is a person's only obligation.

Advice from the man who calls himself king to the shepherd boy seeking his as-yet-unknown treasure and, ultimately, his *Personal Legend*, what he has always wanted to accomplish.

Telling more about the *Personal Legend*, the man who calls himself a king continues:

...there is one great truth on this planet: whoever you are, or whatever it is that you do, when you really want something, it's because that desire originated in the soul of the universe. It's your mission on earth.

From *The Alchemist*, by Paulo Coelho, New York: HarperCollins; 1993, page 22.

## Preface

This book is about what we have learned in several millennia of medical practice and about the art of doctoring – using that wisdom in daily patient care. It is about the elderly woman with pneumonia you treated yesterday afternoon and the middle aged man with chest pain you saw this morning. It is about the child with croup, struggling for the next breath in the middle of the night, and about the medicines we use each day. It is about your community members who look to you for leadership and the medical student you are mentoring. It is also about you and me, as humble members of the most noble profession, and our families who support us and who worry about our well-being.

To fully appreciate the nobility of our calling, we physicians – indeed, all health professionals – need to know about current applications of our heritage from past generations of medical practitioners and scholars. These include how to think like both a professional clinician and an empathic human being; how to manage disease, illness and death; and how to care for our patients, their families, and ourselves and our families – in short, how to be a knowledgeable, wise and caring twenty first century physician.

As you read the pages that follow, you will discern three themes – as suggested by the introductory quotations. The first involves the legacy of medical knowledge and wisdom provided to us by our predecessors, and for which we should give thanks each day. Knowledge and wisdom, of course, are not quite the same. There is *medical knowledge*, the rapidly expanding treasury of objective data that helps us deliver evidence-based medical care, and there is *medical wisdom*, which is subjective, philosophical, and sometimes surprisingly intuitive. The second theme is the imperative of our

service to others, the fundamental mission of medicine and doctoring. And the third is the physician's ongoing quest for self-actualization – in the words of Paulo Coelho, the seeking of one's personal legend, a journey that takes on special meaning for those would be healers.

In exploring the three themes, I have sought the time-honored advice of experienced healers and investigators – the wise physicians. A great deal of what follows might be considered "oral history," thoughts and tales seldom recorded in standard textbooks. Nevertheless, to make this the most scholarly work possible, I have attempted to support precepts and maxims with concrete examples derived from three sources: the current medical literature, anecdotes from the history of medicine, and the personal narratives of practicing physicians, including some of my own stories.

The book's title *Medical Wisdom and Doctoring: the Art of 21st Century Practice* was chosen to emphasize that the content is relevant to what physicians do today. You will read about some current diagnostic and therapeutic approaches, practical communication skills, pertinent ethical issues, and trends that just might foretell tomorrow's practice. In addition, there are chapters on caring for you, the physician, as well as for your family and your community – endeavors I consider essential to achieving your full potential as a physician.

Some items you will read describe the exploits of "great doctors" who have preceded us. These include Moses Maimonides, Ambroise Paré, John Snow, Francis Weld Peabody, the brothers Mayo and others. In addition, many of the topics presented have come from unsung medical heroes, the hardworking clinicians who, in their daily practice of medicine, have also been some of our most wise physicians, who have given us ideas and techniques that merit sharing with future generations. In the end, the selection of content is mine, based on four decades of experience in medical practice and teaching.

To continue with the "oral history" thought mentioned above, this book tells examples of medical lore passed from senior to junior clinician, from teacher to pupil, from mentor to mentee. Actually, we should hope that the precepts, methods, and wise words are being passed on, but such is not always

the case. For both young and older physicians, the days are often too busy for reflective discourse and for "tales told around the campfire." What's more, with the proliferation of scientific knowledge, there seems to be scant time to share the *wisdom* of medicine. Hence, in some ways, what you will read in the coming pages represents what you may not have learned in medical school and residency, or what may sometimes be accorded low priority amid the demands of daily practice.

This book is written for physicians. Yet, the content is pertinent to all clinicians. For the medical student, resident in training and physician in early practice, nurse and physician assistant who provide patient care, the concepts presented can help avoid clinical misadventures and potentially painful experiential learning. Even if you have been in practice for two or three decades, this book is sure to present some approaches to healthcare you have not previously considered, and it will help satisfy your curiosity as to whether or not your daily practice of medicine is consistent with that of the *wise physicians*.

Of course, with time some advice needs to be tweaked a little to bring it up to date with twenty first century medicine. For example, in 1903, Sir William Osler advocated bedside teaching as a radical reform in teaching medical students.¹ Yet today, with short, focused hospital stays often measured in hours and with many alternative venues for patient care, teaching is more likely to occur in the physician's office, emergency department of the hospital, operating room, or even the patient's home or nursing home. For this reason, I have presented timeless maxims, supported by examples that relate to today's practice. Also, in the case of personal practice anecdotes, I have disguised names and circumstances to protect patient confidentiality, while trying not to lose the flavor of the stories.

I urge you to read *Medical Wisdom and Doctoring* for personal enrichment. You will find some quotes from Hippocrates and Pogo, Albert Schweitzer and Charles Barkley (yes, the basketball player Charles Barkley), Louis Pasteur and Little Orphan Annie. You will learn the success secrets of Applebee's Restaurants, the back-story of Joseph

Lister and Listerine, and the identity of the role model for Sherlock Holmes. Yet, for those who just must be learning something "useful," I have included some hard-core clinical pearls, such as the tip-off that can alert you when a patient may be developing herpes zoster ophthalmicus, the best way to test for diabetic peripheral neuropathy, what to consider when you encounter a unilateral right-sided varicocele, and the significance of pleuritic-type chest pain radiating to the left shoulder and relieved by leaning forward. I would be honored if some forward-thinking medical school professor designates this book as a required course text, but I have stopped short of providing details of how to diagnose and treat specific ailments.

The aphorism "Medicine is not only a science; it is also an art" is attributed to medieval physician Paracelsus (1493–1591)<sup>2</sup> and more than anything, this book is about the art of medicine. And so, what you hold in your hand is intended to be read on a quiet evening beside an open fire, on a long plane ride, or perhaps as something to ease the tedium of a night in the on-call room, because it presents concepts that should be savored when you have time for thoughtful reflection.

Now settle in and enjoy Medical Wisdom and Doctoring.

Portland, OR

Robert B. Taylor, MD

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## About This Book

There are men and classes of men that stand above the common herd: the soldier, the sailor, and the shepherd not infrequently; the artist rarely; rarer still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only to be marveled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practice an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Herculean cheerfulness and courage. So that he brings air and cheer into the sick room, and often enough, though not so often as he wishes, brings healing.

Robert Louis Stevenson

#### Dedication to *Underwoods*. (1)

Shirley Iverson had health insurance, and with a new job at age 42, she was one of the lucky ones. Her chief problem was that she had recently moved to the city and had not yet established her "medical home." When she began having episodes of feeling weak and light-headed, she decided to seek help. Her quest began with a series of telephone calls to four medical offices, only to be told, "We are not taking any new patients," or "Our office is not on the panel for your insurance company." Eventually a large clinic offered her an appointment a week later, after verifying her insurance coverage. When she showed up for her appointment, she checked in at the front desk and then spent some time with the financial screener, who relieved her of thirty dollar co-pay. Next the medical assistant showed her to a room, asked her chief complaint, logged on to the electronic medical record, and

instructed her to disrobe and to put on an examination gown. Another person in white – a nurse – came to take her vital signs and elicit details of the clinical history.

Finally, after all the telephone queries, day-of-visit encounters with four office employees, and a long wait sitting in a drafty exam gown, the door opened and the physician entered the room, shook her hand and sat down. "Hi, Ms. Iverson, I'm Doctor Johnson. It's great to meet you. Let's talk about what brings you in today." Somehow, the doctor's manner put her at ease, and Shirley sensed intuitively that she could relax and tell this physician her story.

In the twenty-first century, the process of accessing healthcare can seem like a visit to the headquarters of a large corporation, until, if you are fortunate, you get in the exam room with an experienced and empathic physician, and you recognize that this is a person whom you can trust with your health and your secrets. At least this is what should happen when patient and physician eventually get together. Actually it often does.

Shirley Iverson's story and the experiences of countless other persons seeking healthcare today provoke cognitive dissonance. Think about it: caring, trustworthy clinicians providing personalized care to individual patients in office exam rooms and at the hospital bedsides in what has become a Byzantine and impersonal healthcare enterprise directed by bottom-line administrators, corporate executives, and government officials. This is the world in which we live, and a paradox I wish I could remedy. In this book, I will, for the most part, ignore the current healthcare bureaucracy, a selfserving enterprise with remarkable inertia. Instead, I will pin my hopes on the most promising change agent, the seemingly anachronistic hero in this story - the wise and competent physician, diligently striving to care for each patient with the nobility that earned physicians the status we enjoy in society. The physician-hero, admittedly no longer the key decision-maker in healthcare politics and economics, just might hold the key to better healthcare for all in the future.

And so we seek to understand, and perhaps emulate, the wise physician-hero. In doing so, the coming chapters, like your life in medicine so far, will be a journey. I will be your guide, not because I claim to be wiser than you, the reader, or any of my colleagues, but because I have done the digging and sorting. I have conducted the literature searches, read the books and articles, and assembled a mountain of material, seasoned with a few stories from my own practice years, into the 15 chapters that follow.

In an effort to make this book scholarly as well as reflective, I have included numerous citations to the literature, using two reference styles. The first is a shorthand method, indicating the page numbers in the books found in the *Bibliography*, books describing events in medical history, practice methods, word origins, clinical aphorisms, and classic quotations. In addition, I have also used the traditional style of item-by-item, chapter-by-chapter citations in instances in which the reference source is used only once or twice in the book. I have included numerous citations of both types, in hopes that readers will want to learn more about the topics described.

Then there are the patient-centered stories, some related to me by colleagues, but most coming from my own encounters with patients. Because I will describe events from my professional experience by topic and not in any chronologic order, I will now give you a brief sketch of my life so far as a physician. I graduated from Temple Medical School in Philadelphia in 1961, spent the next 3 years in training, and completing my obligatory service time at the United States Public Health Service Hospital in Norfolk, Virginia. In 1964, accompanied by my wife and two young daughters, I left the USPHS and joined a four-doctor group in New Paltz, NY, a picturesque college town in the Hudson Valley of New York, some 90 miles north of New York City.

In 1968, I left the security of the medical group. In the nearby town of Gardiner, NY I built a 1,500 square foot medical office in what had been an old apple orchard. Here I was a "country doc" until 1978, when I left rural private practice to join the medical school faculty at Wake Forest University in Winston-Salem, NC, a life change sparked by my emerging interest in medical scholarship, chiefly in editing reference books for physicians.

After six years at Wake Forest University School of Medicine, in 1984 I accepted the chairmanship of the Department of

Family Medicine at Oregon Health & Science University in Portland, Oregon. I held this position until 1998, when I became professor/chairman emeritus, a position I hold now.

I tell the outline of my story, not as an exercise in literary narcissism, but as a framework to understand the anecdotes in the pages to come. My story, probably quite different from that of you, the reader, may help to show the diversity of our lives as persons and as professionals. Yet, as physicians we all recognize common milestones – the event of receiving an MD degree, the demanding years of training, the early years of practice, the career decisions we all face, and the life changes experienced as we grow older. These highlights of our lives, along with the stories our patients tell us, are the shared narrative of contemporary medical professionals.

There is more, of course, to the shared narrative of physicians, and that is the many chapters of exploits and service, of misbeliefs and missteps of the generations of healers that have gone before us. I think of this book as being about these events, and the lessons learned from them that influence what we do today.

All I ask is this: If this were a novel – let's say a thriller about a plot to blow up Washington, DC – I would ask you to suspend disbelief. But this is a book about becoming and being a wise physician. And so I urge you to dial down the filter of scientific skepticism that we all have, and seek personal enrichment in the pages that follow. I'll try not to disappoint. The coming chapters will discuss the art of clinical dialog, diagnostic skills, disease management, and caring for the patient rather than the disease. As examples of concepts presented, you will meet the young man declared prematurely dead (Chap. 7), the professor on the payroll of Big Pharma (Chap. 12), the doctor who said, "I don't know" once too often (Chap. 3), the patient who left his car to confront a rattlesnake deep in the Virginia's Dismal Swamp (Chap. 11), and the trichinosis that killed my Grandma's cat (Chap. 4).

Acknowledgments by an author are the humble recognition that no book, especially a retrospective work of this type, is a solo effort. I first thank my family: Anita D. Taylor, MA Ed, a true medical academician and a perceptive editor; our children Diana and Sharon; and our four grandchildren,

Francesca (Frankie), Elizabeth (Masha), Jack, and Anna (Annie). In addition, I want to acknowledge the contributions of many persons who, over the years, have shared their friendship, listening skills, stories and wisdom, some of which is reflected in the pages that follow. In no special order, these valued persons are: Robin Hull, Van Pine, Bob Bomengen, Jim Crowell, Ray and Nancy Friedman, Tom Deutsch, John Saultz, Bill Toffler, Scott Fields, Eric Walsh, Peter Goodwin, Coelleda O'Neil, Ben and Louise Jones, Marge Sosnik, Takashi Yamada, John Kendall, Joseph Van der Veer, and Alan Blum. In addition, I gratefully acknowledge the excellent work of my Springer editor, Katharine Cacace.

Now, it's time to begin. Whether you are a medical student seeking mature learning, or a seasoned practitioner wanting to become wiser than you are, the contents of this book can help. What you are about to read can not only assist you in making good patient care decisions, it can also help alert you to the potential for "unwise" choices in one's professional and personal life. So I invite you to join me as we explore the fascinating world of *Medical Wisdom and Doctoring*.

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# Medical Wisdom in the Twenty-First Century

I knew a doctor who was honest, but gentle with his honesty, and was loving, but careful with his love, who was disciplined without being rigid, and right without the stain of arrogance, who was self-questioning without self-doubt, introspective and reflective and in the same moment, decisive, who was strong, hard, adamant, but all those things laced with tenderness and understanding, a doctor who worshipped his calling without worshipping himself, who was busy beyond belief, but who had time – time to smile, to chat, to touch the shoulder and take the hand, and who had time enough for Death as well as Life.

Michael A. LaCombe, MD1

This book is intended to help physicians achieve their full potential – to become wise physicians and to be able to apply wisdom in their daily practice – much like the doctor described above by LaCombe.

In this introductory chapter, I discuss some of the concepts imbedded in the title and elucidated in this book: These include the source of our current medical wisdom and methods of doctoring and the rationale behind my term *wise physician*; the art of medicine and service to humanity; aphorisms and precepts as vehicles to communicate medical wisdom; and the paradigmatic underpinnings of the twenty-first century practice.

# TODAY'S MEDICAL WISDOM, OUR METHODS OF DOCTORING, AND WISE PHYSICIANS

What we offer patients in the office and hospital – today's doctoring – is the legacy of the generations of physicians and scientists who have preceded us. To borrow a metaphor

from English physicist Isaac Newton, we should think about those giants upon whose shoulders we stand. The following is a message by physician-educator Félix Martí-Ibáñez (1911–1972) to medical students at New York Medical College in the 1950s:

You have chosen the most fascinating and dynamic profession there is, a profession with the highest potential for greatness, since the physician's daily work is wrapped up in the subtle web of history. Your labors are linked with those of your colleagues who preceded you in history, and those who are now working all over the world. It is this spiritual unity with our colleagues of all periods and all countries that has made medicine so universal and eternal. For this reason we must study and try to imitate the lives of the "Great Doctors" of history.

Martí-Ibáñez 1961, p. 197.

#### **Great Doctors**

There are "Great Doctors"; there are "top doctors"; and there are *wise physicians*. This book is about the wise physicians – with insights into how they practice and live their lives, the precepts and maxims that they have bequeathed us, and the methods by which they heal, teach and inspire. But what is the relationship among the three groups? When discussing physicians of yesterday and today, do "great," "top," and "wise" mean the same thing?

In 2008, I wrote a book titled *White Coat Tales: Medicine's Heroes, Heritage and Misadventures*; the first chapter in the book told of the heroes, what Martí-Ibáñez calls the "Great Doctors" in history. Familiar names of the Great Doctors (and Scientists) include Imhotep, Hippocrates, Claudius Galen, Moses Maimonides, Andreas Vesalius, Thomas Sydenham, William Withering, Edward Jenner, Ignaz Semmelweis, John Snow, Joseph Lister, Robert Koch, Marie Curie, William Osler, and Sigmund Freud, all venerated for the medical advances and the knowledge they championed. I would consider many of them wise physicians but, in fact, we know their names today because each did something *memorable*. Not all, however, would be considered to have been wise in the truest sense of the word. Andreas Vesalius (1514–1564),

whom Garrison (p. 218) asserts "alone made anatomy what it is today – a living, working science," became enraged when his work was criticized by colleagues, burned his manuscripts, turned his back on anatomic studies, and departed from Padua and went to Madrid, where he became a courtier, not a path that most of us today would encourage.

A few centuries later, German physician Robert Koch (1843–1910) discovered that tuberculosis is caused by the tubercle bacillus. The luster of this 1882 discovery was tarnished, however, when he later sought to market a secret remedy for tuberculosis, called ironically "tuberculin." The miracle drug was eventually found to be a glycerin preparation of tubercle bacilli, an embarrassing discovery prompting Koch and his new young wife to flee to Egypt, using funds he had received from the sale of his bogus remedy. (Porter, p. 441)

Lord Joseph Lister (1827–1912) is renowned for using carbolic acid (phenol) to help create a sterile surgical field in 1886, but his intellect was not matched by wisdom in his actions following the 1879 introduction of Listerine. Two entrepreneurs named Joseph Lawrence, himself a physician, and Jordan Wheat Lambert, concocted this proprietary remedy. In response to the unauthorized use of his name for a product marketed "to kill germs that cause bad breath," Lister "spent vast sums of money in unsuccessful efforts to suppress the term." (Dirckx, p. 82)

Marie Curie (1867–1934), who coined the term "radioactivity," carried glass tubes containing charmingly glowing radioactive isotopes in her pockets, eventually died of aplastic anemia, which we can logically assume was caused by exposure to "her" radium. (Taylor, p. 20)

Joseph Goldberger (1874–1929), known for demonstrating that pellagra is a niacin deficiency rather than a contagious disease, sought to prove his point by holding a "filth party," at which he, his wife, and several volunteers swallowed pellagra scabs, inhaled dried secretions, and injected themselves with blood taken from a pellagra victim. (Taylor, p. 23). His courage and tenacity earned him a place in the pantheon of Great Doctors, but today most would consider his actions foolhardy.

In fact, history is replete with the names of physicians and scientists who exhibited astounding vision, genius, and even serendipity, but not always great wisdom in their actions. And so, I submit that one seminal discovery, however ground-breaking, does not necessarily connote wisdom.

### **Top Doctors**

Then there are the "top doctors," aka the "best doctors." What about the popular lists identifying "best" or "top" doctors? We Americans love the "best," and are fond of reading about the "best restaurants" and "best hotels." In magazines, we scan lists of the "best companies to work for," "best cities to live in," "best places to kiss," and even "best retirement communities." We admire the "best-dressed Hollywood stars." And part of our fascination with "the best" involves ranking America's physicians and hospitals. For example, the venerable American Association of Retired Persons (AARP) has published a list of top "out of town" hospitals for persons considering travel away from home for medical care. The list is based on ratings by physicians and, for example, it ranks the Mayo Clinic in Rochester, Minnesota as tops if you have a "mystery diagnosis."

I was a "Top Family Doctor" nominee in 2009. With the notice came the opportunity to purchase a "Proclamation" wall plague in a frame of finest imported mahogany hardwood (only \$229) documenting my achievement. The selection criteria, I learned, include experience, training, professional associations, and board certification. In 2009, I was - at age 72 – no longer actively caring for my own panel of patients, and my nomination was probably based on the books I have written. It certainly wasn't because of my superior training – a single year of internship almost 50 years ago. I was undoubtedly a better physician 35 years ago, when I was in solo rural practice, but unknown outside my community. The "best" and "top" doctor lists in the newspapers and on the Internet are largely generated by nominations of fellow doctors, who, in turn are influenced by scientific papers published, national name recognition, even local publicity. A weakness of the system is lack of actual observation of the

physician in practice. Few practicing physicians ever have their day-by-day care observed by colleagues.

In fact, when the local Portland, Oregon list of Top Docs was published in January, 2009 a respected local trauma surgeon wrote in response, "Here are my concerns about listing top trauma doctors: there is nothing scientifically valid about what is a 'top doc' in this survey – nothing about credentials, track record, publications, true peer reviews; any organization and/or group can nominate candidates and 'stuff' the ballot box, and that is in fact what is happening."<sup>3</sup>

It seems that Portland, Oregon is not alone is creating spurious lists. Writing about the *New York Magazine* 2006 "Best Doctors" list, Sepkowitz tells, "Half the selections are first-rate doctors, no doubt about it. Another 25% are people whom I don't know well (although I have my doubts), and 25% are certifiable duds – doctors who (hopefully) haven't seen a patient in years but have risen to the lofty realm of high society and semi-celebrityhood."<sup>4</sup>

And so, while many of "best" and "top" doctors are undoubtedly outstanding clinicians, a few probably aren't, and searching these lists – intended to identify those with superior training, knowledge and skills – may or may not lead you to the ideal doctor. My phrase wise physician has a somewhat different connotation.

### Medical Wisdom and the Wise Physician

So what is medical wisdom, the *summum bonum* most of us physicians would like to possess? Let's start with what medical wisdom is not. It is not about a high intelligence quotient – IQ – and, in a sense, may be the antithesis. In Chap. 9, I will explain this further under the heading: "Don't aspire to be the smartest person in the room."

Just as medical wisdom is not the same as intellect, it is also not directly connected to science – the process of creating new knowledge based on measurable and verifiable facts. Discovering, for example, that depression is more common in migraineurs than in the so-called normal population is useful information, but not wisdom. Nor is medical wisdom the same as clinical intuition, the knack of finding

answers to questions without conscious thought, a gift that defies quantification or explanation.

In my opinion, medical wisdom is the capacity to understand and practice medicine in a common-sense manner that is scientifically based, sensitive to patient needs, ethically grounded and professionally satisfying.

Based on this definition, the phrase *wise physician* describes those healers who provide excellent and up-to-date care for their patients while taking good care of their own families, their communities, and themselves. Most *wise physicians* do not get their names in history books, or even in the Sunday supplements. They practice exemplary medicine, doing their job thoughtfully and conscientiously, leaving a legacy of respect to be enjoyed by the next generation of aspiring healers.

To return to history, I believe the term wise physician describes Edward Jenner (1749-1823), who demonstrated the value of smallpox vaccination using material from a cowpox pustule in 1796, and yet who remained a country doctor throughout the balance of his practice life. Sir William Osler (1849–1919), who advocated patient-centered medicine, was also a wise physician and you will find his insightful sayings sprinkled throughout the pages to come. The brothers Mayo, surgeons whose famous clinic in Rochester, Minnesota is now the home of a prestigious medical school, were wise physicians, and some of the evidence is the treasury of aphorisms they have left us. (In the bibliography, see Willius: Aphorisms of Dr. Charles Horace Mayo and Dr. William James Mayo) And as you read on, wise physician describes the family physician in the tiny frontier town of Lakeview, Oregon, providing the full spectrum of health care for his patients, while contributing to his community and to the education of future doctors. It is about the doctor in the inner-city community health center, making life better in many ways for those who depend on the neighborhood clinic. It is about the retired physician who organizes a monthly "Senior Physicians' Seminar," with discussions of current ethical and philosophic topics in medicine. The book is about all of them, and is especially about their medical wisdom and their clinical skills, which they have all shared unselfishly (or are sharing today) with young persons aspiring to be tomorrow's next generation of "wise physicians."

I believe that we would all agree that our ideal physician would be intelligent, competent, diligent, humble, resourceful, trustworthy, and genuinely caring. He or she would be intelligent, but that is a baseline expectation for today's physicians; the medical school admissions process generally assures that those who are admitted have excellent grades and some modicum of interpersonal skills.

Competence, a core attribute of wise physicians, is different from intelligence. I have known physicians who had stunning intellects, but who lacked the common sense and attention to detail needed for the safe practice of medicine. Competent physicians exhibit sound medical knowledge and clinical skills. They approach diagnostic problems logically, advise rationally, and consult liberally.

The ideal doctor is diligent, actually a higher hurdle than native intelligence, because diligence takes energy, and calls for some level of compulsiveness. This means following up on laboratory tests and being up-to-date with every medication the patient is taking. As an example of diligence, when asked about taking work home heart surgeon Michael DeBakey replied, "Of course I take my work home with me. Any physician who doesn't should not be practicing medicine. There may be five or six open-heart operations scheduled the next day. All represent individual lives to me. I care about every patient; I worry about them. I think about all of them – their families and their hopes. I may be having dinner with you and talking about baseball, but my mind is with those patients. I wouldn't be a real physician if I didn't do that." (Manning and DeBakey, p. 8)

Humility is an attribute of the wise physician, who is always open to questioning an opinion or challenging dogma. Being humble helps avoid errors of arrogance, such as denying a young woman's request for a mammogram because you are sure her breast lump is too small to be significant. Just keep in mind that Murphy's Laws of Medicine, discussed in Chap. 11, can always trump your clinical acumen.

When I am ill, I want my physician to be resourceful, and not reliant on 5-year-old knowledge; thus, he or she will use the computer, check the literature, and call experts when needed. Trustworthiness is a physician attribute we can usually take for granted, and when a doctor seems to fail this expectation, as in the areas of truth-telling or maintaining confidentiality, the reason often lies in an ethical values conflict, not uncommon among persons with strong moral principles.

There is also the issue of caring for the patient, discussed in Chap. 2. For physicians evaluating other physicians, as in nominating colleagues for a "top-doc" list, this can be the most difficult attribute to assess, but it can be vitally important to the patient and family. Caring is sitting down and answering the patient's questions; caring is thinking about the meaning of a symptom or disease – back strain, for example – to the patient; caring is calling the family to report on progress of a hospitalized patient. This week, for example, my oldest granddaughter Francesca, who lives 600 miles away in Sun Valley, was in the hospital emergency room with gastroenteritis, dehydration and, as is sure to happen when a physician's family member is sick, some miscellaneous and slightly confusing other manifestations. The emergency physician, whom I have never met, called me - Grandpa Doctor in Portland – three times during the day to give me progress reports. In the end, Francesca responded to treatment and went home, and I greatly appreciated the extra effort of the physician to keep the parents and concerned grandfather informed of what was happening.

Under the general heading of caring, there is one more universal and more-or-less measurable attribute: The wise physicians are on the scene when their patients need them. They answer the phone when the patient is sick, make the hospital visits and even house calls, and they let their patients know, "I'll be there when you need me." And while providing the best possible care to their patients, they also safeguard their own health so they can "be there" when their patients need them.

One final trait that has always characterized the wise physicians is *passion*, which I hold is part of the definition of medical wisdom concerning personal satisfaction. Passion for excellence in patient care is what gets us out of bed in the morning and what lets us make the extra office or hospital call, sometimes even when we are tired and hungry. Passion is what keeps us learning decades after leaving medical school. Only the enormous energy that passion for medicine can bring will enable you to live up to diverse imperatives that will make you a wise physician.

# ABOUT DOCTORING, THE ART OF MEDICINE AND SERVICE TO HUMANITY

What about doctoring and its personalized application, the art of medicine? As a little lexicographic background, "doctoring" is the past participle of the verb, "doctor," meaning to act as a doctor. This is bit of etymologic inconsistency, since "doctor" actually comes from the Latin *docere*, meaning "to teach," and does not denote healing at all. Nevertheless, doctoring is what we physicians do, and the art of medicine describes individuality, intuition, and sagacity that each physician brings to the work of doctoring each day.

The art of medicine has long been a favorite topic of doctors. Here, let's look at what some great minds have given us:

The practice of medicine is an art, based on science. Sir William Osler, quoted in Bean and Bean, p. 123.

It is our duty to remember at all times and anew that medicine is not only a science, but also the art of letting our own individuality interact with the individuality of the patient.

German physician-philosopher Albert Schweitzer (1875–1965), quoted in Strauss, p. 361.

You will see then that a distinction is drawn between the Art and the Science of Medicine. The Art in its Hippocratic sense has reference among other things to the practicing doctor's ability to inspire confidence in his patients and their relatives. This requires on his part an understanding of human nature, abounding unselfishness, unflagging sympathy, and observance of the Golden Rule.

American neurosurgeon Harvey Cushing (1869–1939), quoted in Rapport and Wright, p. 507.

Caring for the patient encompasses both the science and the art of medicine. The science of medicine embraces the entire stockpile of knowledge accumulated about man as a biologic entity. The art of medicine consists of the skillful application of this knowledge to a particular person for the maintenance of health or amelioration of disease. Thus the meeting place of the science of medicine and the art of medicine is in the patient.

American cardiologist Herman L. Blumgart<sup>5</sup>

Now, let us take the next step: I believe that – with all the implied individuality, ability to inspire confidence, unselfishness, and skillful application of knowledge – the art of medicine, at its core, is nothing if not service to humanity.

Each fall, with the arrival of an incoming freshman class at our medical school, I am privileged to lead a small group seminar on "professionalism." The session comes a few days before the new students will receive their white coats and recite the *Declaration of Geneva*. At my session, we review the *Declaration of Geneva* as well as the original Oath of Hippocrates. Just for the record, the newer Declaration of Geneva, adopted by the General Assembly of the World Medical Association at Geneva in 1948 and subsequently revised several times, continues the same general theme of service and integrity as the oath attributed to Hippocrates.

In my opinion, the most powerful phrase in the Declaration of Geneva is found in the first lines: "At the time of being admitted as a member of the Medical profession, I solemnly pledge to consecrate my life to the service of humanity." Humanity is an expansive word, and this is a compelling statement, reasonably interpreted to mean that you and I will do our best to advance the welfare of humankind in general, and our patients, in particular. This pledge refers to the individual patient with diabetes sitting in your office. the nonagenarian with a stroke in the nursing home, the family of the child with cystic fibrosis, the children in a day care center threatened by an outbreak of rotavirus, and the residents of other lands who lack the health care benefits we take for granted. I tell my students that I hope they take this vow very seriously to serve humanity. If they do so, and make service to humanity the centerpiece of their professional lives, then they will, indeed, come to love the Art of Medicine.

Sometimes, the message of medicine as service to humanity takes a little time to sink in.

When I was in medical school, some among us called it "doctor school," as though we were attending a trade school and we were learning to become some sort of technicians. I am not sure we truly realized that, in the words of German pathologist Rudolph Virchow (1821-1902), "Medical instruction does not exist to provide individuals with an opportunity of learning how to make a living, but in order to make possible the protection of the health of the public." (Virchow, quoted in Brallier, p. 205) In spite of our youthful misconceptions and our middle-age strivings, sometimes sagacity develops with age. Speaking on the occasion of his 93rd birthday, American medical educator Eugene A. Stead, former chairman of the Department of Medicine at Duke University Medical Center, shared the following musing about his time as a student: "I was not particularly interested in providing service to all people. I never thought about that until my later years; I knew that the medical school wasn't that interested in that goal either. Now that I have grown older I realize how ignorant I was for most of my career, and I am a little ashamed of what a slow learner I was."6

It seems that, at some time during his professional life, Dr. Stead experienced the epiphanous realization that clinical science, medical knowledge, and doctoring are all about helping humans – typically, yet not necessarily always, one human at a time – achieve optimum health. May we all share his enlightenment.

# ABOUT MEDICAL WISDOM EXPRESSED AS APHORISMS AND PRECEPTS

Creativity and new knowledge are expressed in many ways. Artists such as Rembrandt and Picasso used paint and canvas. Beethoven, Puccini, and other composers used notes, instruments, and sometimes voices to bring life to the music they created. Sculptors use stone, potters use clay, and weavers use fabric. Over the centuries, seasoned and thoughtful physicians have often packaged their insights as aphorisms

and precepts – bite-sized kernels of experiential wisdom, often spiced with a metaphor or simile, or garnished with a twist of irony.

As the astute reader has surely deduced, I am a fan of medical sayings, which are the "meat and potatoes" of this book, with some axiomatic principles and friendly advice as philosophical condiments. Here is one of my favorite clinical aphorisms, courtesy of my favorite aphorist, Sir William Osler, having to do with the evaluation of abdominal pain:

Adhesions are the refuge of the diagnostically destitute.

(Osler, quoted in Silverman, p. 103)

In these few simple words, Osler created the image of a befuddled physician, faced with a patient with unexplained abdominal pain, bereft of plausible etiologic notions, crouching behind a hedge of adhesions. Since I first heard this adage, it has stuck in my mind like a familiar refrain, and I have shared it with two generations of physicians in training.

Fascination with cunningly constructed, tightly packaged truths has long been a secret vice of doctors, perhaps because many physicians harbor a lingering desire to be writers. In fact, over the years, many physicians such as Sir Arthur Conan Doyle, Somerset Maugham, and Michael Crichton did so, trading clinical medicine for a life of creative writing.

Some might hold that physicians invented the aphorism, and there is some historical evidence, however debatable, to support such an assertion. Fowler states, without equivocation, "The word *aphorism*, meaning literally a definition or distinction, is of medical origin; it was first used of (SIC) the Aphorisms of Hippocrates, who begins his collection with one of the most famous of all famous sayings *Art is long; life is short*. The word has come to denote any short pithy statement containing a truth of general import." (Fowler, p. 31)

Bolstering the physician's claim to aphoristic rights, American medical educator Martin H. Fischer observed, "Since the time of Hippocrates, our father, the aphorism has been the literary vehicle of the doctor ... Laymen have stolen the trick from time to time, but the aphorism remains the undisputed contribution of the doctor to literature."<sup>7</sup>

As ancient example of succinctly stated wisdom, consider "First, do no harm," a precept we have all encountered. Even today, I recall one of my earliest medical school lectures, given by a surgeon. With the imperturbable self-possession that only a surgeon can portray, he strode to the blackboard and printed in large capital letters: *PRIMUM NON NOCERE!* No physician takes issue with this self-evident dictum, which dates to the time of Hippocrates, and in fact, even earlier to ancient Hindi medicine. (Taylor, 2008, p. 122) Hippocrates, who lived five centuries before Christ, gave us many clinical aphorisms that have stood the test of time. On example is the admonition, "In acute disease, it is not quite safe to prognosticate either death or recovery." (Strauss, p. 461)

This book is organized by precepts, maxims, and aphorisms, with the goal of making the messages relevant to today's practice of medicine.

# ABOUT MEDICAL PARADIGMATIC CHANGE IN TWENTY-FIRST CENTURY PRACTICE

Each generation has an obligation to remind succeeding ones about people, ideas and events that have gotten us to this point.

American physician and educator John Geyman<sup>8</sup>

The practice of medicine we see today is not the medical practice of yesteryear, or even of yesterday. Things change, almost daily, and one of the goals of this book is to help present to younger doctors the philosophical insights, methodological changes, paradigmatic shifts that have led us to how we practice medicine today. For example, Hippocrates (ca 460–377 BCE) challenged the belief systems of his day by holding that disease comes from natural causes and not from intervention by some deity residing on Mount Olympus. Military physician Ambroise Paré (1517–1564) revolutionized wound care when, upon running short of boiling oil, he applied a cold solution of egg yolk, turpentine and oil of roses to battlefield injuries. Rudolph Virchow (1821–1902) pioneered the postulate that all life comes from life.

As recently as the early twentieth century, we could count on our fingers the available medications – digitalis, quinine, ergot, opium, salicylates, the ubiquitous purgatives, and a few others – that had any promise of benefit to patients. Writing in the New England Journal of Medicine in 1964, L. J. Henderson reflected, "Somewhere between 1910 and 1912, in this country, a random patient, with a random disease, consulting a doctor chosen at random had, for the first time in the history of mankind, a better than fifty-fifty chance of profiting from the encounter." (Strauss, p. 302) Why did Henderson specify those dates? The key innovation of that time was the introduction of arsphenamine, an arsenical derivative marketed as Salvarsan as a "magic bullet" to treat syphilis, a humble beginning for what would become the era of actually effective, disease-specific drugs. (Taylor 2008, p. 121)

The instruction of young physicians also changed, based on a study by Abraham Flexner (1866–1959), a previously unemployed former schoolmaster funded by the Carnegie Foundation for the Advancement of Teaching, who visited selected medical schools and subsequently prepared a report titled *Medical Education in the United States and Canada*. Before the Flexner report in 1910, medical education in the US was based on an apprenticeship model; today, science-based, specialty-oriented medical education prevails. (Taylor 2008, p. 22)

These advances and more – such as the introduction of ether anesthesia by William T. G. Morton in 1846, the development of the germ theory of disease by Louis Pasteur in the 1870s, and the discovery of the X-ray by Wilhelm Roentgen in 1895 – all had profound influence on medical practice. But changes were not limited to specific advances, nor did the evolution of medicine end at some date in the mid twentieth century.

Here, I describe some of the paradigmatic shifts that have occurred during my practice lifetime. I won't discuss the development of the Salk polio vaccine in 1952, the isolation of the human immunodeficiency virus (HIV) in 1983–1984, or the mapping of the human genome in 2005, as important as these all may be. Instead, I will focus on cultural shifts in medical education and practice, sea changes that have

shaped how we currently decide who will be our doctors, the settings in which they will practice, how they relate to their patients, how they will think about themselves, and how they will earn their livings.

### The Democratization of Medicine

In 1908, Henry Ford "democratized" the automobile, producing the first motorcar that was affordable by the average working American, fulfilling his goal, which was to "build a car for the great multitude." In a somewhat analogous sense, we have witnessed the democratization of medicine. That is, medical knowledge is no longer the exclusive property of the chosen few – the physicians – and medical decision making is increasingly shared with patients and families. It was not always so. For example, in the Oath of Hippocrates, we find the line, "... I will impart a knowledge of the Art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, *but none other*." (italics mine) In ancient times, medical knowledge was clearly intended for doctors only.

When we think about it, there is a direct link between medical knowledge and medical choices. In considering what happens when, let's say, a treatment decision must be made, the physician assumes the role of process leader even though the patient makes the ultimate decision. In this model, there are various types of leaders: dictatorial, autocratic, parental, facilitative, and others. Two or three generations ago the physician, the possessor of medical knowledge, typically assumed a parental leadership role. (Actually, because most physicians were male, a more precise descriptor would be "paternal.") What layperson could fathom the extravagant proliferation of cancer cells or the greasy accumulation of plague in the walls of coronary arteries? In those days, when we were digesting the news that cigarettes just might cause cancer and had vet to learn about HIV and AIDS, it was therefore axiomatic that, "Doctor knows best."

The beginning of democratization may be dated to the social upheaval of the 1960s, when one of the tenets was to question authority, giving patients license to question their

physician experts and to seek knowledge upon which to base their own health care decisions. Another step in the democratization of medical knowledge and decision making came with the proliferation of home medical guides, published by many medical experts and sources, including the venerable American Medical Association, whose *Family Medical Guide* is now in its fourth edition. The dike burst with the advent of the World Wide Web, bringing current medical information to everyone. Nor are we limited to PubMed and other professional sites. Today, patients (and physicians alike) search Google for answers to medical questions, and come to their physicians clutching printouts describing the latest medical advances.

With such data readily available to the informed patient, and with the current emphasis on "informed consent" influenced by the medico-legal climate of the day, it is only logical that medical decision making has become a shared enterprise, and the doctor's leadership style has morphed from parental to facilitative.

### The Collectivization of Medicine

Early American medicine was largely an assortment of solo practitioners, working in small offices and occasionally in local hospitals, serving their communities. Today, the solo doctor is an endangered species, in part a casualty of the health maintenance (HMO) movement, described next. For example, today in my specialty of family medicine, 17.6% of physicians are in solo practice in contrast to 73% who report being in some sort of group practice arrangement. The current trend is clearly toward fewer solo doctors and more large group practices.

### The Commercialization of Medicine

The democratization of medicine can be considered a favorable trend, and the collectivization trend has been a mixed blessing, bringing economies of scale at the expense of autonomy, but I can find nothing to like about the progressive commercialization of medicine. I urge all to read