Chicken Soup for the UW Medical Student Soul
The Gold Humanism Honor Society (GHHS) is an organization that honors senior medical students recognized for "excellence in clinical care, leadership, compassion and dedication to service." This booklet was started by the 2007-08 GHHS class and we, the 2008-09 class, have chosen to continue its publication. It is the heartfelt contributions from health professionals and health professional students that truly make this publication possible. The following collection of stories serves as a constant reminder that the concepts of integrity, excellence, compassion, altruism, respect, empathy, and service must be cultivated and nourished as we proceed throughout our training and professional careers.

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Beauty

I rush into her room, hoping to finish my rounds before I have to leave for clinic. She’s sitting up in bed, smiling. Cosmetics are lined up along the bedside tray – foundation, powder, blush, eye shadow. She has just finished applying her foundation. Susan, a chronically ill woman in her sixties, had been admitted to the hospital after missing her dialysis appointment and developing severe hyperkalemia. She lives in an assisted living facility and is likely suffering from the early stages of dementia.

As I ask permission to examine her before she is finished with her makeup, I notice her slightly-chipped, deep pink fingernails, gold-tone rings on three of the fingers on her right hand, and the outfit she is wearing. Bending over to listen to her lungs with my stethoscope, I notice the heavy look of her foundation. It is just a tad too dark for her coloring and makes a visible line along her jaw. She breathes in and out, complying with my request. Her lungs are clear. As I reach over her to listen to her heart, I discreetly glance at her makeup to see which brands she uses. Does she get her foundation from the drug store or the department store? I admire the colors in the eye shadow compact. I ask her how she is feeling and tell her she will be able to go home the next day. She smiles, thanks me, and picks up her compact again.

My initial thought when I see a patient with makeup on in the hospital is, why bother? If
you're sick enough to be in the hospital, why do you need to look good? I relish my weekends when I can run around with my hair in a ponytail and my face free of any makeup. Upon further reflection, I remember discussing geriatric sexuality with the residents I teach. Older people remain sexually active into their eighties and beyond, even in nursing homes. While it seems this would be both difficult to accomplish and unappealing at the extreme of age, it serves, in part, to make people feel attractive.

One of my very elderly patients, a ninety-year-old woman with severe dementia, was recently hospitalized. She receives respite care on the weekends at a local assisted living facility. Her daughter told me that the assisted living facility staff does her mother’s hair and gives her a manicure every week. She was both astounded and pleased by this. She asked me if I noticed her mother’s fingernail polish, which, in fact, I had noticed during my exam. My patient probably has very limited awareness of whether her fingernails are polished, but it demonstrates to the patient’s daughter a certain level of care that her mother is provided.

Closer to my own heart is my younger sister, Barbie. She is severely mentally and physically handicapped. At her day program, the staff also does her nails regularly. Despite the contractures that pull her hands and arms close to her chest, Barbie’s hands look lovely. That is the right word – lovely. Her nails are long and tapered, perfectly manicured. As Barbie’s sister,
it reminds me that the staff at her program see her as a person, an individual.

We are taught in medical school that physicians depersonalize patients. Partly out of self-protection and partly out of the extreme stress physicians often experience, we lose sight of our patients as people, as individuals who wish to be attractive. When my patient in the hospital puts on her makeup, I think she is trying to remind us, “I am a person, and I matter. Please treat me with respect. Be kind.” It is a gentle reminder to this physician to take just the briefest moment to look at the face, the eyes of my patient before I focus on the sick heart, lungs full of fluid, or infected leg.

Connie Has the Answers

Connie is forty-five years old. She is no more than four feet, eight inches tall and very nearly that big around. She wears a harvest jack-o-lantern’s omnipresent smile. She loves hugs, and she has trisomy twenty-one, or Down syndrome. She lives in a nursing home.

Connie cannot walk and spends the greatest part of her days in bed, on a specially-designed air flotation mattress, to prevent the development of pressure ulcers on her buttocks, hips and feet. Connie is a paraplegic – not because she has Down syndrome, but because she was hit by a tornado when she was young. Down syndrome and a tornado survivor, all
wrapped up in one four-foot-eight-inch body of joy and happiness.

Connie has a loving family that has cared for her at home, up until this year. Her parents are aging and suffering from the more mundane infirmities of octogenarians. This year Connie developed very severe, deeply infected ulcers down to the bones of her pelvis and hips. She is particularly prone to these sores because her bladder constantly leaks around her permanent catheter, leading to wet, sore skin prone to break-down and infection. Her chronic skin and bone infections have caused her to lose her appetite, resulting in poor nutrition, anemia, and worse infections. By the time she was admitted to our local hospital, her bottom looked like raw hamburger meat - deep crevices and craters topped with an infectious membrane. It was a sight that was hard even for me to look at for very long. The only positive aspect of her condition is that Connie can’t feel a thing below her chest, thanks to the tornado and its resulting spinal cord injury. This is a blessing for which the family, doctors, and nurses, with much irony, are thankful every day as they change her dressings and clean her ulcers.

When I enter Connie’s room on my daily rounds, she invariably holds out her arms and yells, “Hi Dr T! Hug!” I oblige and bend over her bed to give her a hug. She then informs the nurses we are going to get married.

Her life consists of watching television, eating as much candy as we allow, undergoing daily skin
cares, and attending to visiting staff and family. She likes to color and do beading or other crafts. I try to make sense out of Connie’s life and the stories it generates. I try to learn from all of my patients, but I feel there should be something even more to learn from Connie. I am not a religious man and cannot simply say she is one of God’s children, sent here to teach us and for us to love. I am generally a practical person, and I ask myself about the cost of her care in relationship to the greater needs and budget of the human existence. Her family derives much joy from their relationship and, in fact, their entire lives have been molded around Connie. She is at once the anchor that keeps them grounded and the ball and chain that imprisons them.

Life cannot be without its blemishes. We cannot purify, filter, or airbrush our surroundings. But what is the purpose behind the time, energy, money, and technology spent to keep Connie alive? Is it for Connie, or is it for those around Connie? Who benefits? Can one really do the math? Should we try?

So every morning I look into Connie’s eyes, then into my heart to try to find the answers. Without the guiding tenets of a religious foundation, I have none. Answers must be one of the advantages of Believing. It must provide answers where none seem to exist. Believers can do the math, answer the unknowns, and bring peace to the questioning. But I think it must also stop the questioning and the search for answers that are really there, but just more
difficult to find. Without the search, how much is lost?

In the end I will continue to care for Connie to the best of my ability, hugs included. I will also choose the discomfort of the unknown, the unanswerable, and the unending search.

Her Room

I have seen dead people before. As a hospital volunteer and now as a medical student, I had seen people die before my eyes. I had seen people seconds before and seconds after their deaths. But to see one live a death process, well……

Liz is what I shall name her. Known to her family as a wonderful wife, mother, sister, aunt and cousin, to her friends as a warm and life-filled woman, and to her church as an enthusiastic member, Liz was known to me as my patient. I first came to know her through word of mouth. I peeked at her chart. I began to ask questions. The answers further stirred my curiosity. Liz would probably have evoked compassion in most anyone. But what pushed me to meet Liz was not my compassion but rather, my curiosity.

Chris, the family practice resident, had told me she was making a house call to Liz’s place. This was her second house call to the family’s home. Liz had recently been discharged from the
hospital. We had all agreed it was good for her to be home for all the obvious reasons but mainly because Liz’s time at home would be short. Liz’s time with us would be short.

Approximately four months ago, Liz had been diagnosed with metastatic renal and pancreatic carcinoma. Within weeks, she presented with metastatic manifestation to at least the lungs. Her prognosis was death within months. Palliative surgeries were performed to relieve gastrointestinal problems. Liz was able to return home.

But, now, home would be very different. Home would be a hospital bed in the spare bedroom. Along with members of an extremely loving and supportive family, Liz would see a home nurse who administered her interferon, medications to reduce her serum calcium levels, narcotics, and other agents created to relieve transient symptoms.

I decided to accompany Chris. It was a cold and gray late Monday afternoon. Chris had a heavy gray coat on. Liz’s husband whom I shall call Ted met us at the door. I was introduced as the medical student. He took my coat and smiled. The smile captured sadness. He took us into the Room.

The room – its walls were lined with bookshelves. They told visitors that this family loved literature about music, Latin, Catholicism and psychology. I was impressed. Rosaries and mainly religious art filled the gaps. Three
basic pieces of furniture in the room caught my eyes: a twin bed, a medication table and Liz's hospital bed.

On this bed, I saw a pale woman whose skin clearly showed the specific contours of her bones. Her blond, white hair stated mere existence. We sat down on chairs pulled closely to her bedside. Ted shut one of the doors, came to the bed, crossed her hands and laid his eyes on his wife. They remained on her throughout most of the visit. I put my purse down and looked at Liz.

Her face, soft and smooth, spoke of a woman with petite features. Her lips gave smiles when the medical student was introduced. Her eyes – Liz's eyes dug deep into the hollows of her orbits. They asked to live and not to die. "I'll not die when you say I shall".

We talk and discussed many things. Although Liz and Ted knew that her prognosis was very grim, Liz wanted all measures attempted to treat, cure and resuscitate her in any situation. Chris explained the possible events if Liz was taken to the hospital due to the increasing pleural effusion which commanded Liz's daily life. Chris acted out her responsibilities. She asked if Liz still wanted all extraordinary measures taken. She clearly and delicately told Liz and Ted that the bag of options in preserving her was being emptied in a very rapid manner. Liz adamantly replied, "Where there is life, there is hope." I started crying. No one saw me. No
one can see you inside. Those who can live, live to die and those who beg for life, lose.

Ted told Liz “You are my angel”.

We agreed to remove Liz from the interferon treatment. She realized that its therapeutic effect in her was nil. Its side effects craved for and relished her remaining life. I was witnessing the living reforming her dying process.

The next Monday, Chris wore her gray coat. We went to Liz’s home. This time no one met us at the door. The door was left ajar. We knocked and then, just went directly into her room.

This time, we did not see a well dressed man who had given life to Liz’s room. We saw a man with sinking eyes which told their story of many sleepless nights, tending to his angel’s every need. I held her hand for about a minute. She smiled. I cried again. Inside. We spoke. She listened. She asked questions. We asked questions. Her answers reflected another living decision about death. Liz wanted to die at home with her family. She did not want any extraordinary measures taken. Liz realized death as she lived every day of those seven days, since we had seen her last. As part of our routine, we adjusted her medications and discussed the other important aspects of her healthcare. She kept glancing at me – or so I thought. We proceeded to leave. After Chris held her and told her we would be back in a week, it was my turn to say goodbye. I also held
her hand. She smiled at me. At that moment she was not just Ted’s angel but mine as well.

We left believing that she would spend Christmas, eleven days away, with her family. As I drove home, I actually felt happy. Yes, Liz was going to die. We all knew that. But more importantly, Liz actively knew this fact and actively was making living decisions about the inevitable. And to spend Christmas with the family; well, death can be kind.

I went Christmas shopping that night and bought cards engraved with angels.

Four days after our visits, the candle was snuffed out. As far as we can ever know, it was comfortable. This was the end – not the end to her life but to her dying process. The living had become the dying dead and that now became the end.

**Scrub Pants**

I have yet to become fully comfortable wearing scrubs. The XLs are similar to wearing Hefty garbage bags, but some of the large size pants are akin to spandex. I have generally chosen to try and revive the parachute pants look, as the XLs tend to be more comfortable, but I have realized this does come at a price...

For me it was a week of little sleep; Ms. M, however, was contemplating that she was going...
to be spending her seventieth birthday in the hospital. GYN was my first basic rotation, and I had been exuberant and wasteful with my energy reserves. One early Thursday morning I stumbled into her room around five o’clock to pre-round, having had only ten hours of sleep in the last four nights. In my post-call haze, I walked over to her bed and asked her the appropriate personal questions for a post-op patient.

My awareness of my surroundings and myself was apparently quite impaired at that point. There was a nurse in the room who was readying an IV or adjusting the PCA. I wasn’t really paying attention to what she was doing. I only remember she was there, because later she laughed that watching me was like seeing someone falling just out of arms reach – words pointless and actions futile.

Ms. M mentioned that, in retrospect, she thought I was exhibiting a “hip-hop style” – the waist of my pants low with the top edge of my shorts showing over them. Of course, it was not intentional. My beeper clipped at my waist acted like the proverbial weight on the fishing line. It was not until I had removed my stethoscope from my white coat pocket, placed the ear buds in my ears, and leaned forward to listen to her heart and lungs that I noticed my scrub pants had sunk to my knees.

My reaction was slow. It didn’t even occur to me to be embarrassed – I just knew those pants didn’t belong down there. So I reached down
and pulled them up. Ms. M, however, was mightily tickled. I think it was because of her response that I realized my faux pas. My apologies and blushing expressed themselves within the same second. I finished the physical exam quickly, with only a vague awareness I should be embarrassed.

From then on, Ms. M always smiled and welcomed me into the room. We joked about the incident for the rest of her short stay. The white coat may be a daunting barrier at times, but occasionally that barrier needs to come down, in one way or another.

Untitled

It was 5:30 AM on the Labor and Delivery Floor at the Aurora Sinai Hospital in Milwaukee. We received a call from OB Triage that a woman in labor was coming up to the floor, and she was completely dilated. However, the message that this woman was Spanish-speaking either did not get relayed from OB triage or inadvertently got missed by the person taking the message. Thus, we did not call an interpreter ahead of time, but made the call when the laboring patient came up to the Labor and Delivery Floor. Many of the patients at Sinai speak Spanish and interpreters are in high demand. Therefore, it usually takes a bit of time for an interpreter to come up to the floor. In this particular instance, we did not have time!
When I entered the patient's room, the laboring patient was shrieking, grabbing at nurses that were trying to hold her legs, and yelling Spanish words (possibly obscenities, I will never know) at the top of her lungs. The family practice resident was going to perform the delivery and the attending was on the way to the hospital. The patient's husband and their toddler were also in the room. The toddler was crying because he did not know what was going on. The nurses were trying to tell the patient's husband to take the toddler out of the room, but the husband did not understand English either. The husband did not want to leave his wife and was not about to leave the room even though his son was, by this time, wailing at the top of his lungs.

In the meantime, I was helping to brace one of the patient's legs while the nurses were trying to calm the patient down. The nurses were telling the patient to “empuje.” Empuje means push in Spanish. The patient started yelling “Doctora, doctora!” Unfortunately I could not understand what she was telling the doctor, but at that instant, I was wishing I spoke Spanish so we could understand this woman and help to make her calm. The baby's head crowned and the woman began flailing her arms and grabbing at the baby. The nurses and I tried to prevent the woman from grabbing at her baby's head. I was thinking how scared the woman must have been. Complete strangers that spoke a different language were trying to restrain her while she was in a foreign environment and in an incredible amount of pain. The shrieking patient
gave one final push, and with a gush of amniotic fluid, the baby girl was born.

Immediately after the baby was born, both the attending physician and the interpreter entered the room. The patient began to apologize to the nurses; she knew the English word for apology, as she kept repeating, “Sorry. Sorry. Sorry. Sorry.” Mom and baby were doing great after the delivery. I left the room reflecting on how communication is paramount to patient care. This woman would have had a much different (and better) experience had we been able to understand her. She would most likely have been calmer had she been able to understand us. The language barrier in this situation was an obvious hindrance to communication. However, it is important to remember that any subtlety (emotional state of the patient, cultural differences, medical lingo, etc.) can be an impedance to an effective interaction with our patients.

Fred was Ninety

Fred was ninety-something when he was admitted to the subacute unit. He lost control over his world when he tripped over the threshold of his house on his way to the garage, shattering his arm and landing him in the hospital for two weeks. He lived alone and was not yet fit to return home, as he had become profoundly deconditioned during his stay. Orthostatic hypotension prevented him from
being able to get up and out of bed, making
tending to necessary activities of daily living
impossible. He was not a happy camper. Fred
did not appreciate anyone’s efforts to help him,
even offering to hold a urinal or position a
bedpan; he resented it and everyone who came
into his room.

After several refusals for physical therapy from
other therapists, he appeared on my schedule
with a note that read, “Will probably refuse.” I
thought, “Oh, great.”

I walked into Fred’s room and greeted him
cheerfully. “Hello, Sir. I’m Teri, and I’m here to
help you get out of bed.” He responded frankly,
“You may go on to the next one on your list.” I’m
not the kind of girl who gives up just like that, so
I approached him and said, “I hear you broke
your arm.” It was cast from his hand up to his
axilla, so I doubt he had a great first impression
of my observation skills. He just gave me a
rather dirty look.

“I understand you’re having trouble sitting up. I
can help with that so you can get home again.”
He responded, “Who are you kidding? Once
you end up in a nursing home, they leave you
here to rot.” I started to say something, but he
propped himself up the best he could and shook
his finger at me. He scolded, “You young kids
come in here and try to tell me what to do! I’m
three times your age!” I responded, “You’re one
hundred twenty years old?” He scowled a little
and said, “You’re forty?” I responded, “Well, I
guess we’re both pretty good at math – that’s a good start!” And he chuckled.

From that moment, everything changed. He was still orthostatic, but his blood pressure had risen enough from the exchange that, with little effort, we were able to achieve sitting unsupported at the bedside.

I always looked forward to the times Fred was on my schedule. He loved to talk about his life and had excellent recall of world events. I learned so much from him.

It took a few weeks of rehab, but Fred went home again. He gave me a kiss on the cheek and winked as he went out the door. I think we both gained a lot of faith in the human spirit those weeks we worked together. I’m sure he’s long gone by now – I’m fifty-one, which would make him one hundred fifty-three – and I hope he didn’t die in a nursing home. But if he did, I hope he passed away with the dignity he treasured and deserved.

A Reflection on Death and Dying

The halls of the hospital are bright and hectic; I walk down dodging the WOWs, carts, and white coats as I try to keep up with my resident. My nerves are firing in a spastic disorganized fashion – maybe I am the one with a neurological problem; what was it my resident
was saying...something about how this patient has suffered an anoxic brain injury. We just looked at the MRI scan. I still have a hard time with MRIs - the different patterns, T1, T2...the enhancing lesions, where were they? He scrolled too fast; I did not even get a good look; I think the finding was diffuse enhancement especially in the watershed area of the brain most indicative of an anoxic brain injury...if I can recall well, the patient had paroxysmal electrical alternans? Wait how did she develop that in the first place?

We arrive to the TLC. Stop for a moment. Deep breath. Try to understand what is going on. Our resident wants to show us the patient’s myoclonic jerks; other than the brain stem reflexes she has irreversible cortical damage. The niece is outside the door, “oh it is the neurologist. I have a question. How sure are we of the results of the MRI? Is there really no hope that she will recover from her current state?” She has been like this for the past two weeks; her brain has experienced irreversible damage....

I look at the patient. This is the first time I have ever seen her. She is covered in tubes, lying in the bed, tilted up jerking in a rhythmic way...at first glance her jerks could have been misinterpreted for a little dance to a tune she may have heard at her first high school dance...but they continue unrelentingly...she is trapped in a march of continual uncontrollable jerks – random neurons free to fire haphazardly from the control of the cortical brain. I watch the
myoclonic jerks; I observe the large body stretched across the bed and I feel strange. What am I doing here? Who is this person whom I have come to see just because she has myoclonic jerks? I don’t even know what happened to her… I scan to find something to help me understand, something to help me stop seeing this body as an object instrumental to my education but rather as a person with an unique personality with her own set of thoughts and experiences…and then there is something that catches my eye….her toenails….they are painted….a rich bright red…perfectly and carefully painted….that one little detail allows me see this body stretched out across the bed in a room of the TLC as a woman who at one point in her life like the rest of us must have enjoyed certain activities….maybe she liked to get together with her girlfriends and they would paint their nails together and gossip about their friends and family or share their joys and sorrows over a good cup of coffee or some chocolate-chip cookies….but why red….what about Crimson, Salmon, Dark Red or burgundy….was red her favorite color? Or would she change colors depending on her mood…

The niece is waiting…she already knows…but she is still waiting….hoping for a miracle… and yes there is always hope she says….maybe not from the medical perspective….but there is always hope….hope for some kind of divine intervention….I suppose that when it concerns your loved one there is no limit to what you can hope for or imagine to bring your loved one back to you…. in the end it is you that is suffering…it
is you that watches as that person who at some point played a crucial role in your life ceases to pick up the phone to say hello and becomes this lifeless figure on a bed in the TLC with continual myoclonic jerks and bright red toenails...

We say good bye to the niece and dash out of the TLC to see our next consult. We discuss altered mental state and the differential for coma on our way, but I feel weird...there is still part of me that is trying to understand...how do I deal with this? How do I deal with the fact that I have just walked into this room to observe the myoclonic jerks of a person whom I have never met before and with whom I will never get the chance to converse again because she no longer has the ability to speak? How do I deal with all the people I see in a day suffering from conditions of varying levels of severity, show compassion and empathy, to return home to sleep through the night? How do I separate myself from trying to appear smart and professional in front of my attendings or from getting overwhelmed by all information that I have yet to learn in medicine to enter each patient's room with the main purpose to do my best to take care of that patient, to focus my attention on that person, not as an object with tubes, as a disease process needing to be fixed, or as one of those "well-known to the establishment," but rather as a unique human being who is in the hospital because he or she is in need of help.

There are times on the wards during which I feel like escaping the chaotic, noisy hospital halls or
the endless note writing, or the drill-like questioning of morning rounds to this time just sit down with my patients and actually talk...“don’t worry,” I would say...“you don’t have to answer, does your chest hurt, are you out of breath, or how are you today? Rather tell me who you are. What did you like to do when you were younger, what is one of your happiest memories or saddest memories, or perhaps even...what toenail polish do you really prefer...turquoise, magenta, burgundy...or is bright red your favorite color?”

First Death

Just trying to do my best.  
Holding my own life together.  
Holding other lives,  
This third year medical student could never know enough...  

A man, a painter, dying of malignancy, eating into his carotid.  
He was wounded. Never showing emotion.  
Wanting no one with him at the end. Forcing us away.  
Watching him, clinically, through that small circle of glass. Alone...  

Where did he come from?  

He would wake each morning, reach for a cigarette, before even rising.  
To the kitchen for a beer, with his cornflakes.
Another day, another dollar.
Loading up the car, driving to the site…

Little thoughts of the pain.
No longer speaking with the inflictors of pain.
Friends came, friends went.
No time to explore the depth of being human…

His strokes were smooth.
A meditation of Yin and Yang.
A cigarette hanging from his lip, the beer nearby.
Life flowed. Alone…

Where did his spirit go?

Sitting quietly in meditation.
The empty blackness, filled with the fullness of light.
Wisdom of the empty fullness.
Bringing this wisdom, as compassion in the light of day.

Sitting, tears tasting salty.
Speaking with the dead.
Without understanding the paradox, the mystery, the awe.
Truth arises…

No such thing as a textbook answer

"What is this structure that I’m pointing to right now?"
With the classic barely audible medical student inflection of uncertainty, I responded:

"Ureters?"

I was finally able to breathe a sigh of relief when the attending finally uttered,

“Good,” behind his surgical mask. As the pimp session proceeded, I surprised myself with the relative comfort I experienced in answering questions about retroperitoneal structures and funky rare soft tissue tumors. For a brief moment, I felt like I had answers for everything!

I remember walking into the patient’s room, brimming with confidence that I would be able to answer any questions that she had. I was so ready. Questions about the surgery? About the etiology of her tumor? About the follow-up plan for her condition? Oh, was I ready to shine! There I was, ready to feel validated over all the hours spent poring over articles and books as all that knowledge was finally about to be put to good use for the welfare of my patient. All charged up now, I proceeded to ask her how she was feeling and if she had any questions about the procedure and/or her condition. With the little strength she could muster, Jeanine opened her eyes, turned towards me and weakly vocalized,

“Doctor, am I gonna make it?”

Maybe I didn't have the answer for everything.
At that moment, Jeanine taught me more about medicine than any class could have. Her question demonstrated the importance of always needing to cultivate a sense of humility. As health care practitioners, we have the knowledge to drone on about kidney disease or various types of cancer, but I quickly learned that we don’t have the answer for everything, and sometimes the right thing to do is admit that we don’t know and recognize the importance of simply listening to our patients. This is what I decided to do with Jeanine, and it turned out to be the best answer possible.

**Overdressed**

“What does it mean?”

You stare accusingly from the brown eyes that I have shared birthdays and summer vacations with.

"I don’t know,” comes too easily to my lips. I fidget uncomfortably in the blue pleathered chair, knowing this won’t satisfy you. You never were easy to deal with, even as a child.

"I know you know. So just tell me.” You’ve always mimicked Mamaw when you were upset: arms crossing a chest puffed out by the breath you have yet to release, while your voice drops an octave. And of course, you needle too: “You did go to medical school, didn’t you?”
There’s the crux of it, I suppose. Though I sit garbed in my ratty jeans and old college sweatshirt, attire that I’d never get away with on the wards, I might as well be in my scrubs and overly abused white—okay, gray now—coat.

They didn’t talk to me about this when I first put it on. They spoke of tradition and privilege. A short monologue was given speaking of the joys, responsibilities, and sacrifices that wearing it required. But they didn’t tell me that I’d never be able to take it off. That I’d never be able to escape into that pleasant, if uncomfortable, ignorance when it was my loved one wearing the thin hospital gown. That even when the painfully short swatch of fabric lay crumpled in the back seat of my Toyota, that those I knew and loved would still see it draped over me. But this, apparently, is the truth of the matter.

“I want to know. Just tell me.” Your voice takes on the twang of our Indiana summers and the years you drifted through Indianapolis serving one too many cups of coffee. A none too subtle warning that my time is running out.

Where to begin? What role to choose? The student doctor or the sister? The observer or the observed?

Of course I could repeat the words we’ve heard discarded by a dozen different health providers. Nonspecific elevation in liver enzymes, likely secondary to right sided heart failure, with a previously noted ejection fraction of thirty five percent. Picture compounded by 2x3 centimeter
hypoechoic mass visualized in the left lower quadrant on transvaginal ultrasound with indeterminate thickening of the endometrial lining.

Of course I could frame the clinical picture easily. I know this patient’s history very well. Right down to the two Mountain Dew she sneaks a week despite the endocrinologist’s warning of an elevated HgA1c. I could even provide the differential diagnosis.

I am a medical student, after all, and my tenure in the short white coat is almost over.

I am also the big sister who taught you to make mud pies. Argued with you over who got the car for the weekend. I still think you won that one more than your fair share. Raced against you to that pitifully small bathroom to take the first shower before school. And yes, I did steal your red sweater when I went off to college.

But I’m also the girl who still calls her mom after a bad date. And I don’t know what to do or even how to think at this moment. Let alone be anything else.

"Just tell me. I want to know. Now."

"I don’t know…” a comforting lie that I really can’t hide behind any longer, "It just isn’t good. It really isn’t good."

Sometimes, it would be nice to leave the white coat at home.
Reasons to Control Your Blood Pressure

I think of her from time to time. When I ask – sometimes beg - a young, healthy seemingly invincible patient with high blood pressure to take it seriously. When I ask them to start medications they don’t feel they need.

My patient, a woman too young for her diagnosis, 55, with a major stroke.

She is a complex and wonderful human being. Someone who loves music, love with a capital L. To play the piano, to sing. Perhaps she is part music. Aren’t we all? She is fascinated by politics and surrounded by her family. She wants to be seen a whole person, not the woman in room B6/400 with the stroke and dense hemiplegia.

She is remarkable. Human. Full of life. And anxious. I am anxious for her. And when I think of her, I remember her slow steps down the hall. Learning to walk again. I imagine her rehabilitation has been miraculous. At least I hope. And from time to time, I still pray for her, that she someday will play the piano again. Perhaps she already is.

In this time, sitting in clinic, while these thoughts flash before me, I have told the young invincible one of the risks of stroke. Of heart attack. Of death. Sometimes it makes a difference, I believe. And I think of her. And I pray.
The Hit

My beeper went off and I realized that there was another admission – “a hit.” I was the 3rd year family practice senior resident in charge of the inpatient service, and on call that day. As residents, we would share our frustration at being given more work and having no control over admissions by saying we had a “hit” and were being “abused.”

I went into medicine for what I thought were all the right reasons – caring for others, healing, compassion, and an interest in science. I believed during my third year that I had not lost those ideals, but losing your direction and focus can be insidious during residency. This is especially true for tired residents who have no control over their workload and who become experts in self-pity.

As the senior resident, I was to serve not only as leader, but also the example to the junior residents and the medical students on the team. Maslow’s hierarchy seems to dominate, though, in times like these – the need for food, sleep, and relationships often being delayed or ignored due to work. Efforts to try to maintain basic needs often conflict with duty during residency.

When the beeper would go off, it was often a sharp jolt, a reality check about work. We were at the mercy of colleagues who felt that they had good justification for admitting their patients. Admission criteria could seem suspect, so a
resident was often admired for being “a wall” and blocking admissions or ensuring that they went to another service in the hospital.

For this admission, I made my way to the clinic from the hospital to see the patient, hoping I could help solve the problem and save the team from days of work. Isn’t it in the best interests of the patient and everyone else to keep people out of the hospital? I found myself preparing to be tough and coming up with good reasons to keep this “hit” out of the hospital.

When I got to the clinic, I met my fellow resident, Diane*, who was enthusiastic to tell me about the patient. She described an elderly woman who had side effects from her medications and had therefore stopped them, causing an exacerbation of her heart failure. Diane very animatedly described that this was a “wonderful patient” who needed hospitalization, but all I could picture was another “non-compliant patient” who conspired to make my work day longer.

Just then, the patient was wheeled out of the exam room on the way to get some tests. Diane excitedly said, “Ms. Jones, this is Dr. McBride, the really nice doctor who I told you would take such good care of you. You don’t have to worry because you will be in good hands. And I will come and visit you every day!” She then bent over and gave her patient a big hug and kiss on the cheek, and the patient was visibly moved by the gesture.
So was I. With the other residents hug and kiss, I immediately saw this patient as the person she was. I became interested in finding out how she got in the condition she was in, where she was from, and the rest of her story. At the same time, I was shocked to realize that I had reduced people to being a “hit” and worrying only about my work. What had happened to my humanism, my compassion, my caring as a physician? I had lost sight of the primary reason why I had entered medicine—to help those in distress.

After witnessing this physician who put the patient first, I vowed to return to my roots, my desire to heal. And I had learned the value of a hug and personal connection to the patient and their suffering. That hug and kiss is permanently etched into my memory and my journey to becoming a healer.

There are many things that can take us from our mission. Many factors can make us forget why we wanted to be a doctor including fatigue, self-pity, self-centeredness, wanting to win the admiration of others, envy, and greed. I will always be grateful to the colleague who steered me back to my true self and taught me through example.

*Name has been changed
Voice

During my anesthesiology rotation, we were asked to review the charts of the patients who were scheduled for surgery the following day. I managed to find my way to First Day Surgery, and spent some time “getting to know” Mr. Valentino by flipping through his paper chart and looking through the documents that had been posted on our hospital’s computer system. Mr. Valentino was in his late 60s, lived in small-town northeastern Wisconsin, and had been active and healthy all his life until several years ago, when he noticed a different quality to his voice and a new hoarseness that didn’t seem to go away. Several months later, he began to notice a “lump” deep in his neck when he tried to swallow. After several years of watching and waiting, various imaging scans, fine needle aspirations, and finally, a surgical biopsy, he finally had received a diagnosis of a very rare form of vocal cord cancer and was scheduled to undergo a total laryngectomy in the morning.

It’s often amazing to me how gracious patients can be when faced with significant illnesses. Mr. Valentino was pleasant when I stopped in to chat with him before his surgery. He patiently recounted the symptoms that had led to his eventual diagnosis. He endured my fruitless poking and prodding at his hand, trying to begin his IV. He and his wife asked me questions about my medical school training, and about what kind of doctor I wanted to be. We discussed the weather (it had snowed the night
before) and the upcoming Packer game. He told me how much he enjoyed spending time in the woods during hunting season.

In many ways, our conversation was superficial, casual—almost mundane. Yet I’m sure the conversation held great significance to Mr. Valentino. Because of the operation he was about to undergo, this was one of the last times he would be able to use his voice.

At first, the loss of a voice might not seem to be such a big deal, especially given the alternative (death from cancer). But I began to think about the many messages we convey with our voices. To never sing again, to never be able to say “I love you”, to lose the ability to make yourself instantly and easily understood? That’s an enormous sacrifice to make, and one that requires great inner strength.

I have a deep admiration for Mr. Valentino’s courage. He is an amazing example of how the human spirit cannot be silenced in the face of disease, even if the treatment for that disease tries to do so.
I have something to confess: I used to be afraid of old people. They’re all frail and sick, and if you look at them wrong, they become delirious or go into acute renal failure or have a stroke. They don’t seem to know what you’re talking about a lot of the time; I mean, they essentially come from another world. Plus they have this tendency to be hard of hearing, and trust me, there are few things in this world as mortifying as shouting, “Are you sexually active?” to an 82-year-old veteran with only a threadbare curtain separating you from everyone else in the hospital. Also, it’s surprisingly hard to tell exactly how demented and/or delirious they really are. And if they don’t have their teeth in (they never do), you can understand approximately 48% of what they’re saying. So you can see that my fear was well-founded.

Unfortunately, medical (and to some extent surgical) wards are crawling with elderly folk. Frail elderly folk. Demented frail elderly folk. So there was a lot of shouting and confusion and blushing (by me) on the wards. I was always so afraid of confusing (or inadvertently killing) my elderly patients that I typically babbled incessantly until I could safely flee the scene. I usually ended up confusing everyone, including myself.

Until one day, when I was feeling calmer or more tired or more innovative or something, and I tried something new. I actually let my patients
talk about something other than how their pain was or whether they had passed any gas from “down below” since I last spoke to them. And my patients told me all sorts of wonderful things.

One elderly gentleman, when asked why he had been in Africa as a young man, proudly exclaimed, “I was hunting Rommel – the Desert Fox!”

A woman who had been born in England told me about her first day living in the U.S. She started out by yelling at a police officer who reprimanded her for jaywalking—which she confused with street walking—and ended the day in jail after she attended her very first 60s sit-in.

A tiny woman who would soon be moving to a nursing home described the beautiful way the wind would move the trees on the hill by the house she had to leave, the house that had been built by her grandfather.

One woman, who fractured her hip while chasing a mole across the railroad tracks behind her house, told me about the disintegration of her marriage because of her fracture and the resultant complications as well as her “German stubbornness.”

None of these people would be around much longer. The Desert Fox hunter had idiopathic pulmonary fibrosis. The English (I’m sorry – Welsh – as she corrected me several times) woman had metastatic gastric cancer. The
others were frail and elderly and had a host of serious medical problems.

I feel so honored and blessed that these people chose to share little glimpses of their lives with me. They might be gone soon (if they aren’t gone already), but they had given parts of their lives to me to hold onto that would last after they had passed on. To me it feels like some sort of trust. These people will keep existing even after they’ve left—through me.

Medical school is when you get to do this, when you get to meet people in this way and on this level. Medical school is the only time for this, probably. It’s certainly not going to happen very often in residency. Probably not in fellowship training. Maybe the chance will be there again when you have your own practice.

There’s this interesting novel called “A Brief History of the Dead.” In it, the dead live together in a city as long as someone still alive remembers them. I like this idea, the idea of keeping people alive by remembering them. As students, we are all in the beautiful and unique position to receive parts of people’s lives, and in our own way, keep a little piece of them alive even after they are gone. My elderly patients helped me to see this. So you can see why I stopped being afraid of old folks.
This story of awe and mystery is so powerful that I still remember it vividly, even though it happened almost twenty years ago.

My first job as a Registered Nurse was in the intensive care setting, and I loved it! I signed up for Primary Nursing, which meant that I cared for the same patients every day until they went home, or until end-of-life. I was committed to Primary Nursing because it created continuity for patients and their families, and prevented things from “slipping through the cracks” in the large teaching hospital that I worked in.

One day the Charge Nurse called me into her office and told me that she thought I was “too involved” with one of my patients. She warned me about the dangers of losing objectivity, and recommended that I take other assignments. I indignantly refused and left her office with an imperious stride; but later, I had to admit to myself that she was right. I had committed the cardinal mistake, and had fallen in love with one of my male patients.

My patient weighed two-and-a-half pounds. His mother was in jail when he was born, an admitted substance abuser and prostitute; his father was listed as “unknown.” The day he was admitted to our large NICU his mom came to visit; I remember seeing the shackles on her ankles peeking out from beneath the hospital.
blanket draped around her thin shoulders and lap. She didn’t cry, or reach over to touch him, but she had the same sad look in her eyes that every other parent there had. She asked the guard to take her away, declaring his name as they whisked her off, “Damon.”

Damon developed many problems: vision impairment, hearing loss, poor digestion, hip dysplasia, and brain scans revealing dark spaces; his prognosis for neurological improvement was poor. His worst problem was severe bronchopulmonary dysplasia with bronchospasms, often requiring CPR or a full code when he became agitated. However, I knew him so well that I could tell you exactly what to do to bring him back: the right amount of pressure for the ambubag to open his lungs without causing harm, the correct head tilt to get his endotracheal tube in, and other nuances. I spent more of my waking hours with him than I did with my own children.

Reading his chart, most of my colleagues questioned why I even bothered with developmental stimulation. His chances to have normal health and development were remote; but his other primary nurse and I wanted to maximize his outcome, just like we would for any other patient. Our coworkers were glad that he had primary nurses, because as long as either one of us were there, they didn’t have to take care of him; he was a “difficult patient”. They shook their heads in disbelief as we continued to provide full support, but I felt honored to witness the glint of fighting spirit and desire to live that
came through him again and again. Something inside of me, intuitively, said to just keep on loving him while providing good technical care—we really didn’t know what would happen.

We kept him alive, and Damon grew. One day I looked at him and thought, “This is a growing baby, and his mom is missing all his ‘firsts’.” So I started taking pictures and made a photo album, including it as part of his Individualized Nursing Care Plan. Some nurses pooh-poohed these, saying that they were just more paperwork to do, but anyone who took a few moments to actually read and follow it had a much better day when they provided Damon’s care. Over time, we weaned him off of steroids and other medications; he became calmer and easier to care for, and some of my colleagues even admitted that he was “sort of cute”.

One day I came in to work after my weekend off, and Damon was gone! I stared in disbelief at the bedside I’d worked at every workday for nine months: there, in place of his large metal crib draped with patchwork quilts, was a plastic isolette with a tiny fetus inside, being tended to by another nurse. As tears welled in my eyes, I glanced hopefully around the large room, thinking that perhaps some kind soul had simply moved him to a quieter spot.

The unit was full, and since Damon was a “Chronic BPDer”, they had tossed his belongings into a plastic washbasin and wheeled him away to the pediatric pulmonary unit, five floors up. I was given another patient
assignment that day, and life in the NICU continued “business as usual”, while my heart felt raw and heavy, full of grief and loss. The clinician in me knew that this is what we had been working for all along, to transfer him out of that noisy invasive place; I hoped that someone would sign up to be his Primary Nurse, but nobody did.

For awhile I visited Damon before going in to work the nightshift...there he would be, sitting in his crib alone, beside himself, not knowing how to put himself to sleep. You couldn’t really hear him crying, because of his tracheostomy. I would scoop him up for a quick hug, place him on his side snuggled into his favorite bear, and massage his head as he quickly fell asleep: the same bedtime ritual that we’d had together for nine months, that I’d written in his Care Plan. I stopped visiting after awhile though; his basic needs were being met, and I needed to let go. A few years later, when I worked in the Neonatal Follow-Up clinic, I looked for his records, but Damon was “lost to the system.”

Eventually, I traded in the demands of intensive care nursing and the clinic to become a consultant for a medical products company. One day I went to provide in-services to nurses in a large hospital, hours away. To my surprise, the woman at the desk dropped her jaw open in astonishment as I approached the desk, and became animated, asking, “Sally Smith, the nurse from the Children’s Hospital?”

“Er, well, yes...”
She interrupted, asking pointedly, “Do you remember Damon Johnson?”

I was stunned and highly embarrassed, because for the life of me I could not remember who she was. “Well, yes, of course, I was his primary nurse in the NICU.”

“Well, you don’t me, but I know you. You don’t know how many times I wished I could’ve met you! I saw your nametag…you see, I was Damon’s foster mother.” Her eyes softened for a moment, as she continued, “Years ago, I got a call from a social worker at The Children’s Hospital, asking me to come and meet a medically fragile baby. Well! When I got there and saw that he was fifteen months old, had never been out of the hospital, and had a whole host of issues, I said no, I didn’t want to deal with all the medical problems of a child like that, especially when there was no chance of reconciliation with his parents. However, that social worker knew me well and simply said, ‘Just go and meet him.’

“I went in to his room, and noticed a plastic wash basin sitting there with a bunch of clothes that no longer fit him, and a photo album. I opened it, and saw this beautiful plan of care, describing favorite ways to soothe him, and best ways to address his medical needs. I said to myself, ‘Somebody obviously loved this child, and if someone else loved him, I guess we can bring him into our home and love him, too.’ Damon was good-natured and happy, and made such progress! We got him glasses and hearing aids;
he learned how to sign when he was three, and began vocalizing around his trach a little bit. Yes, he had lots of problems, but we learned so much together, and became a stronger family. In fact, he was in and out of here so many times, that I ended up at this job as their unit secretary.”

I was astonished. How was it possible to be reconnected with my first primary care patient, whose picture I had kept tucked away in a shoebox for over six years? Afraid to ask the question I really wanted to know, I inquired, “Did his family ever come to visit him?”

“No,” she said thoughtfully. There was a great moment of silence before she continued, softly saying, “Damon died here, about a year ago, after getting an abdominal infection. It was one of many hospitalizations, but we never regretted having him in our family…and I want to thank you for showing how much you loved him, and for providing such good care, so we that we could love, and learn from him, too.”

I will never understand the mysterious forces that brought me to that particular place, hours away, in a different role, years later, at the right time, to meet Damon’s foster mother. It was such a gift. As nurses and physicians, we grapple with the ethics of prolonging a life that might become a burden, have poor quality, or lead to suffering. Most of the time, we are required to repress the experience of wondering what happens to our patients after they are transferred or discharged, never knowing
whether doing what we thought best was enough, or was 'right'. Sometimes, we manage to listen to the intuitive voices of our heart, allowing love and compassion to lead us into the mysteries of the unknown, until the day they are untucked from the shoebox sitting on a shelf in the closet.

Sammy

There was, we knew, something wrong. A shadow on the ultrasound Leaving a hole, a question Unspoken but very present In the troubled eyes and clasped hands Of mother and father and family.

Then, finally, born. A boy. The face, cleft, obvious to see, A gut-wrenching beauty. I look closely, worried— A third have other problems.

Heart and lungs are good… I breathe again. Five fingers, five toes, Stomach feels OK, Penis and testes normal, Ears OK, feeling better.

Then try to open his eyes And the world falls down. Nothing there. Lids partly fused, And only pale pink skin below.
Dear God, Dear God, Dear God—
How can this be? What will I say?

Somehow, we tell them.

And, somehow, it is accepted.
Stronger than they or I knew,
Loving him. He is their son.

My First Patient

“I am so glad to see you,” were the first words he spoke as I entered his room at 5 am. This was my first patient of third year and I was waking him up at this much too early hour for the third day in a row. I was surprised by his welcome.

This morning, he described the gradual onset of abdominal pain throughout the night, a concerning symptom for any student on general surgery. Thoughts of perforated bowels and swollen appendices flashed through my mind. A quick exam—diffuse tenderness, no palpable masses, no peritoneal signs—reassured me. Still, his pain remained without an explanation. I wondered if he would need another surgery to explore the problem.

As I thought about his pain, I noticed that my patient had very little urine in his drain from overnight, but a significant amount was pooled in the tubing. I lifted the tubing and it emptied,
then, as I let it down again, filled with more fluid.
I lifted, drained, lowered, filled...more urine.
Five minutes later I had emptied nearly half a
liter from his bladder. Looking at my patient, the
wrinkles in his forehead relaxed and he turned
and thanked me. His pain was gone. For the
rest of his hospital stay, he called me his doctor
and always smiled when I walked in the room.

A week after my patient’s discharge, I returned
to the floor after a busy day in the OR. A nurse
came out of a patient’s room, touched my arm
and asked my name. After giving it to her, she
smiled and said, your first patient stopped by
today after an outpatient appointment. He just
wanted to say, “Thank you again.”

When I entered medical school, I thought that
being a doctor meant doing great deeds—saving
lives. In that moment, I realized that it is more
about caring for the person in front of you, even
if all you can do is empty their bladder.
A Lesson in Small Bowel Obstruction

*Humanist Manifesto, 1933: “Humanism will affirm life rather than deny it, seek to elicit the possibilities of life, not flee from it, and endeavor to establish the conditions of satisfactory life for all, not merely for the few.”*

In the course of my clinical education I encountered a patient who taught me more than just the science of medicine. She reminded me why I chose this profession by illustrating the humanity of medicine. She was 27 year-old female with metastatic chondrosarcoma who presented with nausea, vomiting, abdominal pain and distention; the classic presentation of a malignant small bowel obstruction. As a member of the surgical team assigned to her case I would become intimately involved in her care to learn all I could about her disease etiology, pathology and prognosis. Little did I know but what she would really teach me was the true meaning of the above quote.

Post-operative day 1 I arrived in her room at approximately 4:30 in the morning, completely engrossed in my own self-reflections, to perform the bothersome task of waking her up simply to inquire, “How are you feeling today?”. This task is bothersome because you are arousing a polite person at a rude time in the morning, the day after a traumatic ordeal, to interrogate him/her for the answer to a question that would be painfully obvious to most people. When I knocked at the door to the room a pleasant
voice informed me that it would be acceptable to enter. Her eyes sparkled with a brightness that I wasn’t expecting that early in the morning. Suddenly the frustrations of my life seemed trivial in light of the fact that after all this patient had been through she smiled and informed me that she was doing well this morning. She uttered no complaints while her husband slept in the room on a cot with music playing softly, and she smiled a smile that informed me that she was genuinely happy to be alive another day. This is the true meaning of the affirmation of life.

Several days elapsed with little improvement in her physical status. The large surgical wound on her abdomen was healing slowly secondary to the compromised state of her immune system, and her gastrointestinal tract was not recovering function. In stark contradiction to the state of her physical health, both her mental and spiritual health were thriving and it wasn’t long before her body was revived as well. Sometime around post-operative day 8 bowel sounds were auscultated, on post-operative day 9 or 10 flatus was passed, and by post-operative day 12 bowels were moving. She was hopeful that it would be possible for her to leave the hospital sometime before the end of autumn. She was optimistic that she would be able to enjoy the changing of the season outdoors and observe as the leaves shifted in color from green to yellow, orange and red. Her resolve strengthened my own to convince my attending physician that she was recovered enough to return home, not just to transfer to the treatment of the palliative care team. Her intention was
not to flee from the rest of her life and hide out in the hospital. She wanted to seek out and embrace all the possibilities that still existed for her, and I saw this as a realistic option.

The next lesson that was this extraordinary young woman taught was the conditions that needed to be met for a satisfactory life. When I arrived in her room at the usual time in the morning for our typical discourse I noticed that her sentences were being rudely interrupted and punctuated by hiccups. As it turned out she was not bothered by pain or nausea or the complete loss of her hair, but that these hiccups had been a noxious presence in her life for the past several hours. The rest of my day was transformed into a quest for a cause or a remedy for this malady. As it turned out the IV morphine that was controlling her pain was a likely offender. Now that she was taking PO we were able to transition her to oral Oxycodone which alleviated her hiccups. It turns out that to really listen to what a patient is saying it is necessary to hear the hiccups between the words. Then you will truly know what they need for satisfaction in life.

While I was still on the surgery service this patient was able to return home, but her story does not necessarily have a happy ending. Only a few months later she passed away leaving behind her husband and her young daughter. This was her final lesson: that life does not always go as planned, but through her strength, courage, will, and positive attitude to live life fully, the principles of humanism can be taught
to others, including students and doctors and husbands and children. She left a legacy that touched many people including myself. I never conceived that I would learn so much about humanism from a malignant small bowel obstruction but through this experience I realized that my patients, and not necessarily the diseases that ravage their bodies, will continue to be my most important teachers throughout my career as a physician.

Dementia

My close friend's father died recently from complications of early-onset Alzheimer's disease.

When medical students hear "Alzheimer's" (especially those preparing for step 1 of the national board examination), most reflexively associate it with "cerebral atrophy, neuritic plaques, neurofibrillary tangles and amyloid angiopathy."

Certainly I am not the first to acknowledge that medical jargon can confound patient-centered medicine. Of the vast quantity of diseases about which medical students must learn, the cumulative suffering that such illnesses inflict is often masked by percentages of sensitivity and specificity, the distinction between incidence and prevalence, and seemingly obscure trivia (for example, that apolipoprotein E4 is a risk factor for Alzheimer's while apolipoprotein E2 is
protective). True, health care providers must immerse themselves in medical technicalities to be able to manage disease. However, esoteric buzzwords and statistics may also represent defense mechanisms (i.e. isolation, intellectualization and suppression) for coping with the overwhelming emotions that accompany debilitating illnesses like Alzheimer's.

Over the past five years I have seen the impact that Alzheimer's has had on one person, one family and one community. Multiplied by millions of cases of dementia worldwide, the buzzwords and statistics become a blur.

Sometimes it's better to just be overwhelmed.

**My Mistaken Goals**

It was always very easy for me to shake my head in disgust after hearing a story about a physician that didn't seem to put the patient first. I did well enough in math and science through high school and college to get into medical school, but I always believed that it was my interpersonal skills that would make me an exceptional doctor. I never had aspirations to introduce a medical breakthrough, to publish a big paper, or to become a renowned expert. I did, however, expect to become a competent physician who allowed patients to feel welcome and comfortable, who provided hope when hope was present, and who would be present for his patients whenever needed. The idealist, Norman Rockwell-style country doctor is what I
had in mind, I suppose. And while part of my excitement to start the clinical years of medical school was to learn new things about medicine, a large part of it was also excitement to develop my “bedside manner,” to spend time with patients, and to learn what illness looks like in real life. I wanted to (finally) help people.

What I quickly learned, however, is that it is very difficult to help people as a third year medical student. When I walked into the hospital for the first few mornings, my goal was, simply put, to avoid hurting the patients. After I grew more comfortable in my role as a student (and more confident that I wasn't going to accidentally kill anyone), my new goal was to avoid embarrassing myself in front of my attending. As the first big shelf exam grew closer, my goal was to pass the exam; then, to do well on the exam. This carried on for the first three months of my third year, into my second block, a general surgery rotation. Since I knew surgery wasn't a likely specialty for me, yet another new goal emerged: finding ways to get home at a reasonable hour each night while still fulfilling my responsibilities on the wards. There was nightly reading to do, reading for the surgery curriculum as well as reading to prepare for next day’s cases. The patients were always the priority of the health care team, but unfortunately, they were not always my personal priority, in light of the pressures of pending shelf exams and evaluations. The patients were mostly sixty and seventy year-olds with hernias, inflammatory bowel disease, or colorectal cancers—nothing of particular intellectual
interest to me, and so I lost sight of the
individual patients and began to view all of my
patients as a blur—something was wrong with
their belly, and we either fixed it or took it out.
They blended together.

One morning, toward the end of my general
surgery rotation at one of our training sites, I
headed back to the pre-operative area to meet
Stacy, my case for the day. From reading her
chart, I knew that Stacy had been diagnosed
with rectal cancer and that she fell a bit on the
young side of the demographic I had become
used to: she was just an eyelash over 40 and
looked even younger. Her husband was there
with her pre-op, and I asked the standard
questions and told her I'd see her after the
surgery. The case went fine; my only memory is
that the surgeon excitedly demonstrated a great
deal of anatomy in Stacy's case because she
was so thin and didn't have the adipose tissue
most of our other patients had had. This,
coupled with her young age and lack of prior
surgeries made her anatomy crystal-clear. We
removed the tumor as best we could and took
lymph nodes for sampling as well. The patient
did well and she became my patient; I would
visit her each morning at 5 a.m. to check her
condition and write a note in her chart.

I don't remember exactly when I began to see
Stacy as something other than another of the
long line of patients I had been rounding on
throughout the rotation. It may have been when
she asked me detailed questions about her
case: she wanted to know how large the tumor
had been, if we thought we had gotten it all, and

50
how long it would be until pathology would post their report. I knew that the report would be up by the following Friday, my last day on the service, and I actually remember talking with her about how her abdomen and pelvis had such perfect anatomy—she was interested in hearing about the case and so I told her what I remembered. She and her husband asked about me as well—where I was from, what I hoped to go into, and everyone’s favorite question: “How many more years?” But I think the moment where I really started to see Stacy as something different was when I stopped in to check up on her on her second post-op day and I met her two little girls, both under 10 or so, beautiful and very polite. I remember one asking me when I would “let mommy come home.”

The pathology result actually was posted on Thursday late in the afternoon and I read it as soon as I saw it. I intrinsically believed that we had removed the entire tumor and I was relieved when I read that three of the four margins were negative for malignant cells and that six of the fifteen lymph nodes were negative. When I went into Stacy’s room on Friday afternoon, after she had spoken with the surgeon, she was sobbing and was clearly devastated. Of course, three of four margins negative meant that the last was positive; six of fifteen negative nodes left nine that were positive. I couldn’t believe my ignorance—I had been privately celebrating a pathology report that was certainly not what the patient was hoping for and was, indeed, a crushing disappointment.
It was in that moment that I learned many things. I realized how far removed I had been from my patients—to the point where I didn't recognize a bad pathology report when I saw one. But I also felt incredibly heavy for the rest of that day. I returned to her room that Friday night—I was on call—and talked with her and her husband about everything except cancer. And I thought about that patient and carried that experience with me for many days after; indeed, I continue to do so today. The 5-year survival for her disease is less than 50% and I remember hurting so much for her, her husband, and her kids in that moment. I wondered how many of the patients on our service had received similar news in the time since I had been on the service. Stacy was a dramatic example, but I was sure there were others that I had missed in my efforts to not embarrass myself, to do well on the exam, and to be able to go home early every once in awhile.

Maybe this story raises more questions than answers. It would be impossible to feel the way I felt that Friday every time one of my patients receives bad news. I probably made too much of an investment with Stacy and her family while they were at the hospital. But that's a lesson I think every aspiring physician should learn the hard way, because that's what helped me to remember that I, too, am human, in the same way that Stacy is. And all the time I spent sitting in that room, chatting with that family, both before and after they knew the pathology report, was an experience that I will hold more closely
than anything I would have gained from reading or sleeping.

I still try to avoid accidentally killing patients (and I have so far been successful in this regard). I still try not to embarrass myself by reading ahead, and I occasionally take shortcuts in the interest of maintaining sleep or sanity, as do most junior medical students around the world, I imagine. But I have implemented a new goal since this experience: I spend a little extra time trying to understand the patient’s point of view each day, with each case. It sounds like common sense, but I will never be the physician I hope to be—the one from the Norman Rockwell painting—unless I ultimately obtain that perspective.

Untitled

For lack of a better medical description, Sasha was unrecognizable. Along with the plastic surgery resident, I inconspicuously scanned a slightly worn photograph of our patient, secured to the hospital room tackboard, and then looked over to the supine patient in front of us. These had to be two different people. Sasha was the unfortunate victim of a late-night high-speed motor vehicle collision, having been hit by yet another drunk driver in the opposing car. She had sustained multiple cranial and facial fractures that left her facial construct a minor jigsaw puzzle of its former shape. She would undergo 3-4 facial reconstructions by the ENT facial plastics team and oculoplastics surgeons.
She had just undergone the first of her surgeries, a wiring of her jaw shut to heal the multiple mandibular fractures. I was assigned to remove some of the brow stitches and cranial staples by my resident, who left the room to attend to procedure down the hall. Suddenly, I felt that alone and awkward feeling that I hadn't felt since my first years of medical school. I tried to nervously and foolishly attempt conversation. What was I supposed to say to ease this person's obvious tragedy? I explained that I would be careful as I removed the stitches, and made some comments at how wonderful it was to have such a beautiful family, referring to the photographs on the bedside table. She nodded gently, with some minor exasperation, as she looked straight at me - in an effort to speak, despite the braces.

After what seemed like an hour of carefully removing each staple and stitch, down to the last piece of metal, my task was finally finished. I realized I was likely babbling to myself the entire time, in an effort to make conversation to ease my own feelings of awkwardness. "Now, you might get through the airport metal detector without a sound!" I joked...and she chuckled a quiet laugh between clenched teeth.

When I was about to leave, I turned around and said-- "Sasha, I just wish I could do more for you right now...I'm sorry". With her free hand, she beckoned me near to her and scrambled for a pen that lay under a half-folded sheet at her side. She grasped it and wrote carefully on a torn page of Cosmopolitan magazine: “Just
being with me and talking to me like a person–it's more than anyone has done or anyone can hope for. Thank you for you."

Three Patients to Care For

It was the first day of my sub-internship in the ICU at Meriter. As teaching rounds began, the attending physician handed me a small piece of paper folded in half. When I unfolded the paper, I saw three words written there. These were the last names of the three patients that had been assigned to me – the three patients that I was responsible for knowing "everything" about. . . three patients to learn from. . . three patients to care for. . . When our team stopped in front of the curtain that covered the entry way to the room of the first patient on my list (we'll call him Robert), the attending physician leaned over to me and explained, "This patient is an elderly man who probably doesn't have much time left to live. He has end-stage COPD and currently has SIRS, systemic inflammatory response syndrome, for which we've been unable to localize a source of infection. He had decided a while ago to be "no code" – no chest compressions and no invasive assistance with breathing. He is having a lot of difficulty breathing now, even with the BiPap mask that we've given him. The family may soon decide to withdraw respiratory support. . ." As I listened to the resident present the specific and detailed information on Robert's case, it was evident that the medical team had done all that they could and would continue to try to make Robert
comfortable as they waited for the family to decide what Robert would want done in this situation.

The next patient on my little piece of paper was Barb. She was a young woman in her 50’s, but had come close to death on two separate occasions in the past month. For unknown reasons, she had experienced “constrictive pericarditis with tamponade physiology”. The bag of tissue that surrounds her heart had become tight, sticking to the heart, and not allowing it to adequately pump blood to the rest of her body. Twice she had undergone emergency surgery to loosen the bag around her heart. On my first day in the ICU, she was two days out from her second surgery. The team was discussing reducing the amount of sedation that she was receiving and reducing her ventilator settings, in order to hopefully be able to remove her breathing tube within the next couple of days. However, her situation was precarious. Among the questions raised on rounds that morning were, what had caused her condition in the first place? Was it simply post-infectious or was it a manifestation of an autoimmune disease, in which her own antibodies where attacking her own body’s tissues? Would it reoccur yet again, necessitating another life-saving surgery?

The third patient on my list was Jim. Jim was a man in his mid-50s, who had had uncontrolled hypertension for the majority of his life. After trying various herbal remedies for his high blood pressure, he decided to start taking medications
for it about three years ago. Sadly, over 30 years of high blood pressure had already done significant damage, and one week before I met him, he had had an aortic dissection, a life-threatening condition in which blood flowing through the aorta, the main vessel carrying blood from the heart, had broken through the inside wall of the vessel and started flowing within the wall of the vessel. The dissection extended all the way from his heart down to the level of his kidneys. Surgical repair had been dubbed a success and now just a few days post-op, the medical team decided to stop all sedating medications and was eagerly waiting for him to regain consciousness.

On the morning of my second day in the ICU, I was busy about the objective business of caring for my patients, learning how to navigate the monitors, tubes, lines, and drips that are unique to the ICU. After spending a substantial amount of time learning their medical information from the electronic medical records, I headed upstairs to the ICU floor to see my three patients. Never before had I been in a clinical situation where my patients were unable to talk to me. How was I to interact with them? How was I supposed to get to know them as individuals?

My first patient Robert continued to look like he did not have much time left to live. He kept his eyes closed and did not respond to any of my attempts at verbal interaction. He had medications to make him comfortable and all of his energy was focused on the next breath. After I finished examining him, I gently squeezed
his hand and left the room. My second patient Barb was more interactive than she had been the day before. She started squeezing my fingers and opening her eyes in response to my requests. She was able to nod her head in response to yes/no questions, though she kept her eyes closed most of the time that I was in the room. It seemed like it was a lot of work for her to open them. My third patient Jim just lay in his bed quietly, with the ventilator regularly filling his lungs with breaths. I greeted him warmly by his first name, as his loving wife had posted a sign on the wall above his bed that said, "I like to be called Jim." I asked him to squeeze my fingers and open his eyes for me – no response.

On teaching rounds that morning, after listening to my report on how he was doing, the team was optimistic. It can take several days for all of the sedating medications to wear off.

Following teaching rounds, our team, which consisted of a senior resident, an intern, and two fourth year medical students, hurried back down to the teaching conference room, one floor down from the ICU. We had to attend morning report. After that, our team headed down to the cafeteria in search of lunch – the all-important GI rounds. When I went back up to the ICU floor afterwards, the first thing that I did was to head for Robert’s room. Following teaching rounds that morning, the attending physician was going to meet with Robert’s family in order to discuss how Robert was doing, a conversation which he thought was likely to result in the decision to withdraw respiratory support. As I entered Robert’s room, it was obvious that the decision
to withdraw support had already been made and that Robert was already gone. He laid there in bed. He was very still. His work of breathing had stopped. Strangely, he did not seem any more comfortable. The look of agony on his face was the same as when I had seen him earlier that morning. His family had already left. Two nurses scurried about him. The funeral home personnel would be arriving shortly, they informed me, and another admission would soon be coming. No chance to get to know Robert or even to meet Robert’s family. Robert was simply gone.

What I felt then stands in sheer contrast to the intense joy that I experienced in watching my second patient, Barb, slowly recover. Each day she took baby steps in the right direction. When she was less sedated but still breathing with the help of the ventilator, she would express how uncomfortable she was by shaking her head “no” to some of the questions that I would ask her and even shaking her head “no” to some of the encouraging statements that I would make. “Barb, you’re getting better each day. We’ll be able to take that breathing tube out soon.” “No,” she would shake her head. Very soon we were able to take the breathing tube out, and I was able to, for the first time, hear her real voice. At first, her voice was quiet and hoarse, but over the course of just a few days, her voice grew stronger and stronger, until it was back to the same quality that I was sure that it must have had before this whole ordeal began. I enjoyed finally getting to speak with her and to get to know her as a person. She was not the
pessimist that I had at first thought her to be when she was still intubated and shaking her head “no”. She was an inspiration, showing off to me the exercises that she’d been working on for physical therapy. Even though she was on the long, hard road to recovery, she showed a personal interest in others’ lives and would ask me questions about who I was and where I was at in life. Within one week, she had recovered to the point of no longer needing intensive care and was transferred out to the regular hospital floor.

My third patient, Jim, was mine to care for the longest. Initially hopeful that the reason for his not responding was just sedating medications that were still in his system and had yet to wear off, morning after morning I would greet him, “Good morning, Jim. This is your medical student Sarah. We want you to wake up and talk to us today...” Morning after morning, there was no response - no opening of his eyes, no squeezing of my fingers, no movement of any of his limbs...

I was able to meet his wife and visit with her at length on several occasions. Being a nurse herself, she often came in the evenings. She would ask me many questions about how his lab results were changing, how his vital signs had been. She shied away from asking me questions about his chances for recovery, as she was afraid to know what the answer might be. So we talked about life outside of this situation. I expressed my wishes to hear his voice and to get to know who he is as a person.
She told me that he is a good man, a good husband, the father of two children that were about my age. She said that he never talked much, but when he did, it was always something worth listening to.

The results of the imaging of Jim’s brain came back. The message was grim. Extensive ischemic damage to many different areas of his brain, likely caused by the rapid change in his blood pressure, meant that his chance of any meaningful recovery was essentially zero. He was in a “persistent vegetative state”. A family meeting was arranged. Three weeks after I had first met Jim, the decision was made to withdraw life support. His two children had traveled to be there. After saying their goodbyes, they exited his room. His wife approached me and explained that they didn’t want to be present when support was withdrawn, but they would be waiting just down the hall in the family waiting area. With tears flooding her eyes, she grasped my hands, thanking me for all of the support and expressing her faith in me, that I would be a great doctor. Then she went on to say that though losing people is very difficult, that I should never shy away from investing myself in them. She exhorted me to let people be my strength. In her time of anguish and great personal loss, she had taken the time to look beyond her situation, to encourage me, and to mold the kind of physician that I am becoming.

Little did I know as I unfolded that small scrap of paper on my first day in the ICU and viewed the last names of the three patients that were mine
to care for, that each would take their own distinct path and impact me in such different ways. Robert left before I had the chance to know him as an individual, yet he left me with a strong sense of loss, the loss of a unique human life. Barb shared with me the joy of recovery, the joy of defying death and once again enjoying life, family, and friends. Jim helped me to understand what it is to journey through the unknown and to walk with a patient’s family through that, as morning after morning, I greeted him, “Good morning, Jim. This is your medical student Sarah. Am I going to get to hear your voice today?”
Clinical Pearls
### Commonly Used Hospital Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+bs</td>
<td>positive bowel sounds</td>
</tr>
<tr>
<td>Δ</td>
<td>change</td>
</tr>
<tr>
<td>A&amp;Ox3</td>
<td>alert and oriented to person, place and time</td>
</tr>
<tr>
<td>ABG</td>
<td>arterial blood gas</td>
</tr>
<tr>
<td>asa</td>
<td>aspirin</td>
</tr>
<tr>
<td>asx</td>
<td>asymptomatic</td>
</tr>
<tr>
<td>bid</td>
<td>twice per day</td>
</tr>
<tr>
<td>bm</td>
<td>bowel movement</td>
</tr>
<tr>
<td>bph</td>
<td>benign prostatic hypertrophy</td>
</tr>
<tr>
<td>brbpr</td>
<td>bright red blood per rectum</td>
</tr>
<tr>
<td>ca</td>
<td>cancer</td>
</tr>
<tr>
<td>Ca</td>
<td>Calcium</td>
</tr>
<tr>
<td>cad</td>
<td>coronary artery disease</td>
</tr>
<tr>
<td>CKD</td>
<td>chronic kidney disease</td>
</tr>
<tr>
<td>cn 2-12</td>
<td>cranial nerves</td>
</tr>
<tr>
<td>cp</td>
<td>chest pain</td>
</tr>
<tr>
<td>cva</td>
<td>cerebrovascular accident</td>
</tr>
<tr>
<td>cxr</td>
<td>chest xray</td>
</tr>
<tr>
<td>d/c</td>
<td>discharge</td>
</tr>
<tr>
<td>DJD</td>
<td>degenerative joint disease</td>
</tr>
<tr>
<td>dvt</td>
<td>deep venous thrombosis</td>
</tr>
<tr>
<td>FEN</td>
<td>fluids, electrolytes, nutrition</td>
</tr>
<tr>
<td>gle</td>
<td>glucose</td>
</tr>
<tr>
<td>h/o</td>
<td>history of</td>
</tr>
<tr>
<td>HA</td>
<td>headache</td>
</tr>
<tr>
<td>HTN</td>
<td>hypertension</td>
</tr>
<tr>
<td>hx</td>
<td>history</td>
</tr>
<tr>
<td>I/O</td>
<td>ins and outs (food in, urine out)</td>
</tr>
<tr>
<td>LE</td>
<td>lower extremity</td>
</tr>
<tr>
<td>m/g/r</td>
<td>cardiac murmurs, gallops, rubs</td>
</tr>
<tr>
<td>n/v</td>
<td>nausea/vomiting</td>
</tr>
<tr>
<td>NGT</td>
<td>nasogastric tube</td>
</tr>
</tbody>
</table>
nml normal
nml s1 s2 normal S1 and S2 cardiac sounds
nt/nd nontender/nondistended
OA osteoarthritis
osa obstructive sleep apnea
PMHx past medical history
pnd paroxysmal nocturnal dyspnea
ppd pack per day (cigarettes)
ppx prophylaxis
prn as needed
pt patient
pt/ot physical therapy/occupational therapy
py pack-year (cigarettes)
qam every morning
qday daily
qhs every bedtime
r/g rebound/guarding
r/o rule out
rrr regular rate and rhythm (cardiac)
s/s signs and symptoms
sob shortness of breath
sx symptoms
TIA transient ischemic attack
tid three times per day
TTE transthoracic echocardiogram
u/s ultrasound
UA urinalysis
UOP Urine output
w/ with
w/o without
w/u workup
wnl within normal limits
wrt with respect to
Patient Management Tips #1: Chest Pain

Consider life-threatening causes of chest pain:
- acute myocardial infarction (MI)
- unstable angina
- aortic aneurysm (rupture/dissection)
- tension pneumothorax
- esophageal rupture (Boerhaave’s syn)
- cardiac tamponade
- pulmonary embolism

Initial Assessment:
ABCs
Airway: Is the patient protecting his/her airway? Able to speak?
Breathing: Vitals (dyspnea or apnea), use of accessory muscles
Circulation: Heart rate, cyanosis? Cold extremities? Pulses?
Get access!
Vitals including pulse oximetry
- tachypnea? tachycardia? HTN?
General appearance: look especially for wheezing, pallor, diaphoresis, changes in mental status, labored breathing

Cardiac exam
- listen for rate, rhythm, murmurs, rubs, gallops
- look for heaves and feel PMI
- assess JVD, pulses, edema
<table>
<thead>
<tr>
<th>Heart Sound</th>
<th>Physiology</th>
</tr>
</thead>
<tbody>
<tr>
<td>S4</td>
<td>Decreased diastolic compliance - may be due to ischemia</td>
</tr>
<tr>
<td>S3</td>
<td>Acute right heart failure secondary to pulmonary HTN - look for right ventricular heave</td>
</tr>
<tr>
<td>Holosystolic murmur</td>
<td>Present during chest pain: ischemia Apical: ischemic papillary muscle dysfunction</td>
</tr>
<tr>
<td>Diastolic murmur (“blowing”)</td>
<td>Aortic regurgitation - may be d/t aortic dissection with aortic root involvement</td>
</tr>
<tr>
<td>Pericardial rub</td>
<td>Pericarditis</td>
</tr>
</tbody>
</table>

**Pulmonary exam**
- percuss
- listen for breath sounds (compare both sides), wheezes, crackles, length of expiratory phase

<table>
<thead>
<tr>
<th>Percussion</th>
<th>Hyperresonancy: pneumothorax Dullness: consolidation or effusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracheal deviation</td>
<td>Deviates to contralateral side in tension pneumothorax</td>
</tr>
<tr>
<td>Pleural rub</td>
<td>Pulmonary infarction, pneumonia (pleuritis)</td>
</tr>
<tr>
<td>Tactile frem.</td>
<td>Increased: consolidation</td>
</tr>
</tbody>
</table>
Decreased: pneumothorax

Egophony
“Aa” sounds like “ee” in consolidation

Extremities:
- Peripheral pulses: may be reduced in cardiogenic shock, aortic dissection, or peripheral vascular disease
- Edema: associated with CHF
- Unequal blood pressures: > 20mmHg associated with aortic dissection

IMMEDIATE INTERVENTION:
Cardiac monitoring/Telemetry/EKG if cardiac cause suspected
Pulse oximetry and supplemental O2 if needed

Lab tests and Imaging

<table>
<thead>
<tr>
<th>Test</th>
<th>Purpose</th>
</tr>
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<tbody>
<tr>
<td>CBC with differential</td>
<td>To evaluate for anemia (which can contribute to ischemia) or infection</td>
</tr>
<tr>
<td>Serial troponins</td>
<td>To rule out Acute MI Get at least three, usually every 6 hours</td>
</tr>
<tr>
<td>Chem 7 or 10</td>
<td>Abnormalities in K or Mg can cause arrhythmia BUN/Creatinine may be elevated in CHF</td>
</tr>
<tr>
<td>D-dimer</td>
<td>Used to rule out PE Sensitive but not specific</td>
</tr>
<tr>
<td>TSH</td>
<td>If suspect arrhythmia or cardiomyopathy; can lead to atrial fibrillation</td>
</tr>
</tbody>
</table>
BNP  For SOB with unknown cause
Can provide support for CHF, but also elevated in renal dis and high-output failure

CXR  Can show cardiomyopathy – enlarged heart
CHF – infiltrates and/or pleural effusion
PTX – lucency
Aortic dissection – widened mediastinum

Non-contrast CT  To confirm PE/evaluate for surgical intervention
May use V-Q scan for patients that have contraindication to CT

Lower Extremity Doppler U/S  Can support PE if clot is present; negative does not rule out PE

*depending on patient acuity, may want to ensure that these are ordered prior to complete history and physical

For Acute Myocardial Infarction

Medications – Immediate [MONA B]

| **Morphine** | Can reduce sympathetic tone and O2 demand |
| **Oxygen** | Maintain O2 sats |
| **Nitroglycerin** | Vasodilator |
| **ASA** | Antiplatelet; inhibits further blockage and reduces damage to myocardium |
**Beta Blockers**

<table>
<thead>
<tr>
<th>At discharge</th>
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<tbody>
<tr>
<td>ASA</td>
</tr>
<tr>
<td>Statin</td>
</tr>
<tr>
<td>Beta blocker</td>
</tr>
<tr>
<td>ACE inhibitor</td>
</tr>
<tr>
<td>Clopidogrel</td>
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</table>

**Procedures**

- **STEMI → immediate cardiac catheterization**
- NSTEMI/Unstable angina: consider cardiac stress testing while inpatient; catheterization within 48 hours benefits high-risk patients (TIMI scoring)
- Echocardiogram to evaluate for cardiomyopathy and ejection fraction
Brief list of questions to ask the patient & INFO
to obtain from the chart:

Location/Quality/Severity/Timing of Pain

- Acute onset, pleuritic pain associated with dyspnea? (pulmonary embolism or a pneumothorax)
- Sudden onset tearing pain that is most intense at onset and radiates to back? (aortic dissection)
- Sharp, stabbing substernal cp with radiation along trapezius that is relieved by sitting forward? (suspect pericarditis)
- Visceral, aching, poorly localized pain, possibly with burning sensations or radiation to arm, jaw, shoulders, epigastrium? (MI, angina)
- Pain exacerbated by exertion, relieved by rest or nitroglycerin? (angina)
- Duration of pain? (If greater than 20 minutes, think MI)
- Poorly localized, burning pain that is worse in the supine position, relieved by antacids: suspect GERD

Atypical symptoms of dyspnea: Does the patient have fatigue, nausea, abdominal discomfort, syncope?

Social history: Recent drug use—especially cocaine?

Medical history:

- Recent respiratory illness?
- History of asthma, COPD, CAD, CHF, DM, clotting disorders, DVT, swollen calf, uncontrolled hypertension?
• History of conditions that increase myocardial oxygen demand (aortic stenosis, hypertrophic cardiomyopathy, tachyarhythmias, hyperthyroidism), decrease tissue perfusion (anemia, hypoxemia), or cause hyperviscosity (polycythemia, hypergammaglobulinemia)?

• Current medications?

Family History: HTN, atherosclerosis, CAD, MI, clotting disorders?

DIFFERENTIAL Diagnosis:

 Cardiovascular: Stable or unstable angina, NSTEMI, STEMI, arrhythmia (supraventricular, nodal, or ventricular, may be brady or tachy), pulmonary embolism, aortic dissection, peri-, myo-, or endocarditis, CHF (of any etiology)
 Pulmonary: Pneumothorax, pneumonia
 GI: GERD, gastritis, esophageal spasm, esophageal rupture
 GU: None
 Musculoskeletal: costochondritis, muscular strain
 ID: infectious endocarditis, myocarditis, or pericarditis
 Rheum: Autoimmune endocarditis, myocarditis, or pericarditis
 Heme: Anemia-induced ischemia, coagulopathy with pulmonary embolism
 Endocrine: Thyroid-induced cardiomyopathy or arrhythmia
Patient Management Tips #2: 
**Dyspnea & Acute Respiratory Distress**
FIRST, consider the following priority diagnoses of dyspnea:
- Hyperactive airway disease
- COPD
- CHF
- Pneumonia
- Pulmonary embolism
- Angina/MI
- Pneumothorax

Pediatric:
May also consider croup and bronchiolitis

**QUICK ASSESSMENT:** 
**ABCs**
- **Airway:** Is the patient protecting his/her airway? 
- Able to speak?
- **Breathing:** Vitals (dyspnea or apnea), use of accessory muscles
- **Circulation:** Heart rate, cyanosis? 
- Cold extremities? 
- Pulses? 
- Get access!

<table>
<thead>
<tr>
<th>Signs that a patient may require intubation in near future:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Altered mental status</td>
</tr>
<tr>
<td>- Difficulty speaking/exhaustion</td>
</tr>
<tr>
<td>- Position of leaning forward on upper extremities</td>
</tr>
<tr>
<td>- Pallor, sweating, accessory muscle use</td>
</tr>
<tr>
<td>- Decreased breath sounds/ inability to move air</td>
</tr>
</tbody>
</table>

**Physical Exam** to rule out or determine priority diagnosis
*if the patient is sufficiently stable, your physical exam should be more thorough than that described below; the table notes the differences that might help you determine the diagnosis.

**IMMEDIATE INTERVENTION:**
Pulse oximetry and supplemental oxygen
Arterial blood gas (ABG)
Cardiac monitoring/telemetry/EKG if cardiac disease is suspected
IV access

Medications:
- **COPD/asthma/emphysema:**
  Nebulized bronchodilators, nebulized anticholinergics; corticosteroids; antimicrobial therapy if coexisting infection suspected
- **Cardiac cause:** see Chest Pain
- **PE:** anticoagulation (low molecular weight heparin), rtPA if large clot expected

**Lab tests**
### Imaging
- PA & Lat Chest xray
- Noncontrast CT or VQ scan for evaluation of PE
- Bronchoscopy if foreign-body aspiration is suspected

### Other interventions
- Needle decompression if pneumothorax is suspected
- Antimicrobial therapy for pneumonia (see idsociety.org for current recommendations) or COPD exacerbation with suspected coexisting infection

### Differential Diagnoses for Respiratory Distress:

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<tr>
<td>Serum electrolytes</td>
<td>If suspect cardiac cause</td>
</tr>
<tr>
<td>TSH</td>
<td>If suspect cardiac arrhythmia or myopathy</td>
</tr>
<tr>
<td>BNP</td>
<td>For dyspnea of unknown origin</td>
</tr>
<tr>
<td>D-dimer</td>
<td>To rule out PE; sensitive but not specific</td>
</tr>
<tr>
<td>Troponin/CK-MB</td>
<td>If cardiac cause suspected</td>
</tr>
</tbody>
</table>
**Cardiovascular:** CHF, cardiac tamponade, PULMONARY EMBOLISM (don't miss it!)

**Pulmonary:** asthma, ARDS, COPD, pulmonary fibrosis, foreign body aspiration, bronchopulmonary dysplasia, pleural effusion and/or pulmonary edema

**GI:** See Onc/ID.

**GU/Renal:** Acid/base disorders

**Musculoskeletal:** Restrictive lung disease

**Neurologic:** Vocal cord paralysis, myasthenia gravis or other neuromuscular disease

**ID:** croup, pneumonia, epiglottitis, retropharyngeal abscess, bronchiolitis

**Allergic:** anaphylaxis

**Oncologic:** Malignant pleural effusion, obstructive cancer (lung, thyroid, nasopharyngeal/oropharyngeal, lymphoma, etc.)

**Congenital:** cystic fibrosis, tracheomalacia

**Psych:** Anxiety, panic attack

**Rheum, Heme, and Endocrine** conditions may be etiology behind conditions listed above, such as embolism, anxiety, acid/base disorders, etc. Look for an underlying cause after the patient is stable.
<table>
<thead>
<tr>
<th>Condition</th>
<th>Helpful History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>Sudden onset or worsening course&lt;br&gt;History of reactive airway or atopy&lt;br&gt;Exposure to known trigger (cold, exercise, allergens, URI)&lt;br&gt;Family history of asthma&lt;br&gt;Controller medications/use of inhalers&lt;br&gt;Recent hospitalizations/course</td>
</tr>
<tr>
<td>Emphysema</td>
<td>History of smoking, recent fevers, productive cough&lt;br&gt;Home use of inhalers</td>
</tr>
<tr>
<td>CHF</td>
<td>Insidious OR sudden onset&lt;br&gt;Orthopnea, paroxysmal nocturnal dyspnea, chest pain&lt;br&gt;Changes in exercise tolerance&lt;br&gt;Recent weight gain&lt;br&gt;History of heart disease</td>
</tr>
<tr>
<td>Pneumothorax</td>
<td>Sudden onset&lt;br&gt;Associated trauma</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>Fever&lt;br&gt;Sick contacts</td>
</tr>
<tr>
<td>Acute Coronary Syndrome</td>
<td>Onset of SOB, aggravating and relieving factors&lt;br&gt;Associated chest pain, diaphoresis, nausea/vomiting&lt;br&gt;Cardiac risk factors</td>
</tr>
<tr>
<td>Pulmonary Embolism</td>
<td>Usually sudden onset of SOB&lt;br&gt;Risk factors: prolonged immobility, hypercoagulability (OCPs/HRT, cancers, rheum disease)&lt;br&gt;Family history of clots (DVT or PE)</td>
</tr>
<tr>
<td>Anaphylaxis</td>
<td>Known allergies or history of atopy&lt;br&gt;Sudden onset, usually following allergen exposure, rapidly worsening&lt;br&gt;Associated urticaria, angioedema, rashes</td>
</tr>
<tr>
<td>Croup**</td>
<td>Stridor&lt;br&gt;Fever&lt;br&gt;Sick contacts</td>
</tr>
<tr>
<td>Bronchiolitis**</td>
<td>Audible wheezing&lt;br&gt;Fever&lt;br&gt;Sick contacts</td>
</tr>
<tr>
<td>Foreign body**</td>
<td>Audible wheezing&lt;br&gt;Witnessed insertion of foreign body</td>
</tr>
</tbody>
</table>

**along with asthma, common causes of respiratory distress in peds
**Notable Findings on PE**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Findings</th>
</tr>
</thead>
</table>
| **Asthma**         | Overall: Audible wheezing, retractions, accessory muscle use, may lean forward (tripod position)  
|                    | CV: pulsus paradoxus, may see increased JVD  
|                    | Resp: Diffuse wheezing (may be “silent chest” if patient is reaching exhaustion), prolonged expiratory phase |
| **Emphysema**      | Overall: Pursed lip breathing, increased AP diameter (barrel chest), may lean forward (tripod position)  
|                    | CV: Decreased heart sounds, may see increased JVD  
|                    | Resp: Diffuse wheezing, decreased breath sounds, prolonged expiratory phase, rales  
|                    | Ext: May see clubbing |
| **CHF**            | Overall: Weight gain, does not tolerate laying down  
|                    | CV: JVD, exaggerated HJR, S3, may see pulsus paradoxus  
|                    | Resp: crackles, dullness to percussion (pleural effusion)  
|                    | *80% of people with fluid overload will not have crackles?  
|                    | Ext: Edema, may have decreased pulses |
| **PTX (pneumothorax)** | Overall: Tracheal deviation, hypotension  
|                    | CV: may see pulsus paradoxus or increased JVD  
|                    | Resp: Hyperresonance to percussion, decreased breath sounds on one or both sides |
| **Pneumonia**      | Overall: fever  
|                    | CV: tachycardia  
|                    | Resp: Crackles, increased tactile fremitus, egophony ("e" sounds like "a") |
| **Acute Coronary Syndrome** | Overall: diaphoresis, pallor, tachycardia  
|                    | CV: tachy, murmurs, S4  
|                    | Resp: usually clear, may have pulm edema if ACS is worsening previous heart condition |
| **Pulmonary Embolism** | Overall: tachycardia, tachypnea, fever may be present  
|                    | CV: may hear accentuated S2 or S3/S4, may hear murmur  
|                    | Resp: usually clear, may hear crackles  
|                    | Ext: check for unilateral swelling, erythema, tenderness |
| **Anaphylaxis**    | Overall: Angioedema, urticaria, audible wheezing or stridor  
|                    | ENT: may see swelling in oropharynx |
| **Croup**<sup>**a**</sup> | Upper airway stridor |
| **Bronchiolitis**<sup>**a**</sup> | Diffuse wheezing  
|                    | Retractions |
| **Foreign Body**<sup>**a**</sup> | Wheezing may be focal, upper airway stridor may be present |

<sup>a</sup>always, always look at the vitals, including temperature, HR, RR, BP, and pulse ox (weight can also be helpful in CHF) to assess the patient’s status. In all of these conditions, you are likely to see tachycardia, tachypnea, and hypoxia. You may also see accessory muscle use or retractions in almost any of these conditions if there is moderate to severe respiratory distress.
Patient Management Tips #3: Acute Abdominal Pain

FIRST, consider causes of Abdominal Pain that can be LIFE-THREATENING:

- Myocardial Infarction (MI) or Acute Coronary Syndromes (ACS)
- Ruptured Abdominal Aortic Aneurysm (AAA)
- Intestinal Obstruction (Small or Large Bowel Obstruction)
- Bowel Perforation
- Esophageal Rupture
- Acute Hemorrhagic Pancreatitis
- Ectopic Pregnancy (ruptured)

QUICK ASSESSMENT:

ABCs

Airway: Is the patient protecting his/her airway? Able to speak?

Breathing: Vitals (dyspnea or apnea), use of accessory muscles

Circulation: Heart rate, cyanosis? Cold extremities? Pulses?

Get access!

- Check vitals, assess level of consciousness
- Cardiac and Lung Auscultation

ABDOMINAL EXAM

- Inspect for distention, surgical scars, rashes
- Auscultate prior to palpation
- Light and deep palpation
- Assess liver and spleen, CVA tenderness, rebound, rigidity
- Rectal exam
- Pelvic exam may be required in females

**IMMEDIATE INTERVENTION:**
- Cardiac Monitoring/Telemetry/EKG: if cardiac disease is suspected
- IV fluids
- Pulse oximetry and supplemental oxygen, if needed
- Pain medication as appropriate

**QUESTIONS to ask the patient & INFO to obtain from the chart:**
Where is the pain? (RUQ, RLQ, LUQ, LLQ, Epigastric)
Rapid or Gradual Onset? Does pain radiate?
How long has the pain been present?
Exacerbating/Alleviating Factors (Association with food?)
Severity of Pain (1-10 scale) & Character of Pain (sharp, ache, dull, constant)
**History of:** abdominal/vascular surgery, pregnancy/menstrual history, diverticulitis, peptic ulcer disease, heart disease, pancreatitis
**Medications?**
### Lab tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC with differential</td>
<td>If suspect bleed, infection, or inflammation</td>
</tr>
<tr>
<td>Chem 7</td>
<td>If has had vomiting or diarrhea or suspect renal etiology</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>To rule out pyelonephritis or other renal disease</td>
</tr>
<tr>
<td>Pregnancy test</td>
<td>Urine or blood bHCG; obtain in most women of childbearing age with abdominal pain to rule out ectopic</td>
</tr>
</tbody>
</table>

#### Imaging:
- CXR
- Upright and supine abdominal XR (consider KUB if suspect nephrolithiasis)
- Consider CT for suspected appendicitis, nephrolithiasis (noncontrast), diverticulitis (oral and IV contrast)
- Consider U/S for suspected gallbladder disease or evaluation of ovaries/uterus or testicles

**IF THE PATIENT HAS PERITONEAL SIGNS OR IS UNSTABLE, A SURGERY CONSULT SHOULD BE CALLED ASAP**
<table>
<thead>
<tr>
<th>Location</th>
<th>Differential Diagnosis</th>
</tr>
</thead>
</table>
| **RUQ**  | **Liver:** acute hepatitis  
|          | **Gallbladder:** cholecystitis, cholangitis  
|          | **Pancreas:** pancreatitis  
|          | **Lung:** Pneumonia  
|          | **Kidney (posterior/flank):** pyelonephritis, nephrolithiasis (may be obstruction of renal pelvis, e.g. staghorn calculi) |
| **LUQ**  | **Pancreas:** pancreatitis  
|          | **Stomach:** gastritis, gastric ulcer  
|          | **Spleen:** trauma/rupture |
| **RLQ**  | **Appendix:** Appendicitis  
|          | **Ovaries/Fallopian Tubes:** Ectopic pregnancy, ovarian cyst, PID, tubo-ovarian abscess  
|          | **Small bowel:** hernia, obstruction, perforation, ischemia  
|          | **Large bowel:** obstruction, hernia, bowel ischemia, perforation, ischemia  
|          | **Kidney:** nephrolithiasis |
| **LLQ**  | **Large bowel:** diverticulitis, obstruction, perforation, ischemia, hernia, volvulus  
|          | **Small bowel:** obstruction, ischemia, hernia, perforation  
|          | **Ovaries/Fallopian Tubes:** Ectopic pregnancy, ovarian cyst, PID, tubo-ovarian abscess |
Patient Management Tips #4: Altered Mental Status

FIRST, consider causes of Altered Mental Status that can be LIFE-THREATENING:
Intracranial Bleed (Subdural or Epidural Hematoma, Subarachnoid Hemorrhage)
Sepsis/Shock
Trauma
Poisoning/Toxins (carbon monoxide, cyanide, overdose or illicit drugs)
Meningitis
Hypertensive Encephalopathy
Acid/Base Disturbance
Seizures (altered mental status may be post-ictal state or seizure)
Cerebral Vascular Accident (can be hemorrhagic or non)

IMMEDIATE ASSESSMENT & INTERVENTION:
Airway: Is the patient protecting his/her airway? Able to speak?
Breathing: Vitals (dyspnea or apnea), use of accessory muscles
Circulation: Heart rate, cyanosis? Cold extremities? Pulses?
Get access!
*If trauma is at all suspected, remember to protect the cervical spine

Reverse possible HYPOTHERMIA or environmental exposures
- Remove clothing
- Hypothermia: warm IVFs and blankets
ASSESS Level of Consciousness: Glasgow Coma Scale (GCS), Responds to voice? Pain?

| Motor          | 6 – follows commands |
|               | 5 – localizes painful stimuli |
|               | 4 – withdraws from pain |
|               | 3 – decorticate posturing (arms flexed superiorly) |
|               | 2 – decerebrate posturing (arms extended) |
|               | 1 – none |
| Eyes          | 4 – open spontaneously |
|              | 3 – open to verbal command |
|              | 2 – open to pain |
|              | 1 – closed |
| Voice         | 5 – oriented, coherent sentences |
|              | 4 – disoriented, converses |
|              | 3 – inappropriate words |
|              | 2 – incomprehensible |
|              | 1 – none |

CHECK:
- Pupillary Response
- Cranial Nerve Exam
- Reflexes (complete physical exam to follow)

Interventions to Diagnose/Manage
TREAT REVERSIBLE causes:
1. **THIAMINE DEFICIENCY**: Give 100mg thiamine IV
2. **HYPOGLYCEMIA**: Infuse 50ml of 50% glucose (D50W)
3. **OPIATE OVERDOSE**: If suspected, give 0.4mg Naloxone doses IV up to 2mg
<table>
<thead>
<tr>
<th>Lab Tests</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC</td>
<td>To assess for infection or bleed</td>
</tr>
<tr>
<td>Electrolytes</td>
<td>As electrolyte abnormalities can lead to mental status changes (especially sodium, calcium)</td>
</tr>
<tr>
<td>Glucose</td>
<td>Hypoglycemia is an easily reversible cause of mental status changes; fingerstick is fastest!</td>
</tr>
<tr>
<td>Tox Screen</td>
<td>Including blood alcohol level</td>
</tr>
<tr>
<td>ABG</td>
<td>If dyspnea, intubated, or suspect DKA</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>UTIs can cause mental status changes, especially in the elderly</td>
</tr>
<tr>
<td>Lumbar puncture</td>
<td>If suspect meningitis; CT should be performed prior to LP if possible if increased ICP is suspected *do not withhold antibiotics in patient with suspected meningitis if LP cannot be done immediately</td>
</tr>
</tbody>
</table>
OTHER INFORMATION to obtain:
How was patient found at the scene? (Who
found patient? Open bottles/containers nearby?
What was happening?)
When was the patient last observed as “normal.”
  - critical for CVA patients to assess
    candidacy for TPA
Was the onset of mental changes gradual or
sudden?
History of: Trauma, Seizures, Diabetes, HTN,
  Cancer?
Medications? Alcohol/Drug Use?

DIFFERENTIAL DIAGNOSIS
Remember that mental status changes can
occur secondary to a variety of infections,
electrolyte/endocrine abnormalities, toxins, and
pain in addition to those diagnoses listed below.

**Cardiovascular:** TIA, CVA, cardiogenic shock
**Pulmonary:** anything causing hyper- or
dyspnea or hypoxia
**FEN/GI:** hyponatremia, hypernatremia,
hypocalcemia, hypercalcemia
**ID:** meningitis, septic shock
**Rheum:** SLE
**Heme/Onc:** Brain tumor, paraneoplastic
syndrome
**Endocrine:** thyrotoxicosis, DKA, adrenal
insufficiency, hypoglycemia
Neuro: Seizure, migraine, dementia, delirium, neurogenic shock
Toxic: Overdose, side effect (consider benzodiazepines, narcotics, etc.), illicit drugs, other toxic ingestions (methanol, etc.)
Psychiatric: Psychosis, schizophrenia, depression, bipolar, mania

IF CVA IS SUSPECTED AND IT HAS BEEN LESS THAN 3 HOURS SINCE THE ONSET OF SYMPTOMS, THE PATIENT MAY BE A CANDIDATE FOR TPA. ALWAYS CONSULT NEURO IMMEDIATELY ON THESE PATIENTS.
Patient Management Tips #5: Gastrointestinal Bleeding

FIRST, determine if the patient is stable (ABCs) and if bleeding is ongoing or resolved to determine whether endoscopy is required immediately.

**Airway:** Is the patient protecting his/her airway? Able to speak?

**Breathing:** Vitals (dyspnea or apnea), use of accessory muscles

**Circulation:** Heart rate, cyanosis? Cold extremities? Pulses? Capillary refill?

**Get access!**

Immediately: Ask when last episode of bleeding was, when started, how much blood was seen, and about associated symptoms (chest pain, syncope, dyspnea)

**Physical exam**

Signs of hematochezia, hematemesis?

Signs of acute or chronic occult bleeding? (fatigue, dyspnea, syncope, angina, pallor)

**Pulmonary Exam**

**Cardiac Exam**

**Abdominal Exam**

Digital rectal exam (look for hemorrhoids, anal fissures, rectal neoplasm)

**FOBT**
Types of GI Bleeding and Likely Location of Source:

- **Hematemesis**: Vomiting of bright red blood or coffee grounds is likely to be proximal to ligament of Treitz (distal duodenum); rule out the possibility that hematemesis is secondary to swallowed blood from epistaxis (bloody nose)
- **Melena**: Black, tarry, foul-smelling stools may be due to upper GI bleed or less likely to the small bowel or proximal colon
- **Hematochezia**: Bright red blood per rectum suggests lower GI bleed; if accompanied by hemodynamic instability then may be due to rapid or massive upper GI bleed

Questions to ask the patient:
Amount, duration and timing of bleeding?
Abdominal pain? (ruptured diverticula/angiodyplasia usually painless; ischemia is painful)
Other symptoms? (fever, urgency/tenesmus, change in bowel habits, weight loss)
Use of aspirin, NSAIDS, anticoagulants, alcohol consumption
Previous bleeding episodes, surgery?
Previous episodes of variceal bleeding?
History of chronic liver disease, ulcers, or *H. pylori* disease?
History of severe cardiovascular disorder or inflammatory bowel disease (increases chance of lower GI bleed)
History of coagulation disorders?
Current medications: be sure to ask about warfarin, heparin, NSAIDS, aspirin, alcohol
Previous abdominal surgery, history of GI bleed, radiation therapy, inflammatory bowel disease, recent polypectomy? Recent AAA repair can lead to aortoenteric fistulae, which are rapid hemorrhages and very dangerous.
Angina, dyspnea, postural symptoms, palpitations since onset of bleeding?

Interventions
Reassess ABCs frequently if suspect rapid bleed.

VITALS: Measure blood pressure, heart rate, postural hypotension
- If systolic bp drops > 20 mmHg from supine to standing signifies the patient has lost 800 mL (15%) of circulating blood.
- Hypotension, tachycardia, tachypnea, mental status changes in setting of acute GI hemorrhage suggest 1500 mL (30%) loss of blood volume.

Orthostasis: drop in systolic BP of at least 20mmHg or in diastolic of at least 10mmHg when measured supine and after 3 minutes of standing
Secure Circulation:
- **Two large caliber intravenous catheters** inserted
- **Volume replacement** with normal saline or Lactated Ringer’s
- **Blood transfusion** if indicated by patient age, overall health, and response of vital signs to initial resuscitation. If remains tachycardic with appropriate fluid resuscitation, for example, may require transfusion.

**Labs Tests**

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC</td>
<td>Monitor Hb and Hct, keeping in mind that these can lag behind rapid blood loss</td>
</tr>
<tr>
<td>Type and cross</td>
<td>For possible transfusion; if suspicion is high that transfusion will be required, hold 2-4 units</td>
</tr>
<tr>
<td>INR/PT/aPTT</td>
<td>To assess anticoagulation that may need reversal (FFP – fast, Vitamin K – delayed)</td>
</tr>
<tr>
<td>Chem 7</td>
<td>May be altered if patient is hypovolemic/prerenal</td>
</tr>
<tr>
<td>AST/ALT</td>
<td>Assess for liver disease that may be causing varices</td>
</tr>
</tbody>
</table>
Imaging
- EKG: to evaluate for demand ischemia
- Gastric lavage with NG tube: negative lavage does not rule out upper GI bleed, but positive result confirms that source is proximal to the pyloric sphincter
- EGD/endoscopy or colonoscopy: for direct visualization and treatment
- Other imaging options
  - $^{99m}$Tc pertechnate-labeled red blood cell scan if blood loss is too rapid for scope or for occult bleed not detected on scope
  - Angiography

Differential diagnosis

Upper GI Bleed
- Epistaxis
- Esophagitis
- Esophageal cancer
- Gastritis/gastric ulcer/duodenitis/duodenal ulcer
- Mallory-Weiss tear
- Esophageal varices

Lower GI Bleed
- Infection (invasive bacterial gastroenteritis, for example)
- Inflammatory Bowel Diseases (Crohn’s, UC)
- Angiodysplasia
- Diverticulitis/Diverticulosis
- Colon Cancer
- Colon Polyp
- Ischemic colitis/Mesenteric Ischemia
- Meckel’s diverticulum
- Hemorrhoids
- Anal fissure
Patient Management Tips #6:
Headache

FIRST, consider characteristics of headaches that may indicate SERIOUS underlying disease:

- **Subarachnoid Hemorrhage**: “Worst Headache of my life”, Stiff neck, explosive headache
- **Meningitis/Infection/Abscess**: Fever, Stiff Neck, Altered Mental Status, Photophobia
- **Brain Tumor**: New Onset of Constant Pain, Prevents sleep, Loss of Consciousness, mental status changes, worse upon waking in the morning, seizures, nausea & vomiting
- **Glaucoma**: Severe eye pain, red eye, dilated pupil, nausea & vomiting
- **Epidural/Subdural Hematoma**: Trauma History, loss of consciousness, neurologic changes
- **Temporal arteritis**: only seen in patients older than 50y/o; new-onset headache with jaw claudication, visual changes

**QUESTIONS to ask the Patient:**

- Age
- Unilateral/Bilateral?
- Describe the pain.
- Frequency, Intensity, & Duration of Headaches?
- Time of Day? Triggers?
- Auras, Prodrome, Vision Changes, Photophobia/phonophobia
- Exacerbating/Alleviating Factors? (Food, alcohol, activity)
• Changes in sleep, exercise, diet, work, lifestyle, menstrual cycle/birth control
• Associated Symptoms: Fever, Nausea, Vomiting, Stiff Neck, joint/muscle pain, nasal discharge/rhinorrhea, tearing?
• Medical History: History of hypertension, trauma, cancer, immunodeficiency, family history of migraines?
• Medications: Many medications can exacerbate headaches

PHYSICAL EXAM:

VITALS & Assess Level of Consciousness → if altered, see Altered LOC

Head: Palpate Scalp for temporal tenderness (temporal arteritis)
Eyes, Ears, Dental, Sinuses
Neck: Pain on flexion/extension, meningeal signs, cervicogenic headaches
Neurologic Exam & Cranial Nerves

CHARACTERISTICS of Common Headaches:
1. TENSION HEADACHE: Band-like sensation, often bilateral, waxing/waning course, patient may remain active or need rest, variable duration, no aura. Treat with Tylenol, NSAIDs, Acetaminophen.
2. CLUSTER HEADACHE: Severe, Brief (30-60min), male patients, often unilateral, often originates near eye or temples, eye tearing & redness, congestion, Horner’s has been seen. Treat with Inhaled O2, NSAIDs, triptans, ergotamines.
Verapamil/calcium-channel blockers for prophylaxis.

3. **MIGRAINE HEADACHE**: Severe, pulsatile, unilateral or bifrontal, gradual/crescendo, patient often needs to lie down, may be associated with aura, photophobia/phonophobia, nausea, vomiting or neurologic findings. Treat with NSAIDs, triptans, ergotamines, propranolol, tricyclics.

**OTHER Lab Tests & Imaging to Consider:**
- Head CT or MRI: imaging for first/worse headache
- Lumbar Puncture: for suspected meningitis
- EEG: if suspect seizure activity

Red flags in headache evaluation:
- recent trauma
- headaches beginning after 50y/o
- sudden onset
- wakes patient from sleep
- increasing severity/frequency
- new-onset headache in pt with known HIV or cancer
- signs of systemic illness
- focal neurologic signs
- papilledema

Patient Management Tip #7: The Dehydrated Pediatric Patient

INFORMATION to Obtain from the Parent
Feeding/Fluid Intake Patterns (Meals? Water, Juice, Milk? Volume/Amounts)
Fluid Losses (Diarrhea, Vomiting, Urine Output, Stool Output)
Appetite? Weight Changes? Activity level?
Underlying Illnesses? Past Medical History?
Medications? Possible Ingestions?
Ill Contacts (home, school, daycare)? Recent Travel History?
Recent Illnesses? Fevers? Antibiotics?
Heat & Sunlight Exposure?

PHYSICAL EXAM
VITALS: fever, tachycardia, tachypnea; hypotension is usually a LATER sign
Level of Consciousness: (alert, lethargic, obtunded)
Pulse: Strong or thready?
Head: (if fontanelle present—is it depressed or sunken?)
Skin: capillary refill >2-3 seconds? Skin turgor/tenting?
Eyes: Tears? Sunken?
Mucous Membranes: Wet, dry or parched?

LEVELS of VOLUME DEPLETION

<p>| Mild | 3-5% fluid loss/contraction, minimal or absent physical signs- except slight tachycardia and slightly decreased urine output |</p>
<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate</td>
<td>6-10% fluid loss/contraction. Tachycardia, tachypnea, and weak pulses are seen (however blood pressure is usually normal). Decreased urine output, increased capillary refill, dry mucous membranes</td>
</tr>
<tr>
<td>Severe</td>
<td>10-15% or more fluid loss/contraction. Tachycardia, tachypnea, hypotension, cold/pale skin, and more pronounced physical findings noted above</td>
</tr>
</tbody>
</table>

**IMMEDIATE MANAGEMENT**

- In General, **FLUID BOLUSES** of 20ml/kg of isotonic fluids (Normal Saline) should be given to correct shock/vital abnormalities.
- Further Volume Resuscitation, depending on maintenance needs and replacing fluid losses
  - For normal kid, maintenance is:
    - 4ml/kg for 1st 10 kg, 2 ml/kg for 2nd 10kg, 1ml/kg for each kg over 20kg

*ORAL REHYDRATION* is usually the preferred route unless severe dehydration warrants immediate IV repletion.
Lab Tests:

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum electrolytes/BUN/Cr/glucose</td>
<td>Can be altered by hypovolemia; DKA can affect acid/base balance</td>
</tr>
<tr>
<td>CBC</td>
<td>If suspect infection or hemorrhage</td>
</tr>
</tbody>
</table>

Further testing as needed to determine underlying cause of hypovolemia
Steps in Looking at a Chest X-Ray

1. LOOK AT PATIENT NAME, DATE, and TIME
2. Quality of Film:
   • Is the patient rotated, hunched over, leaning to one side?
   • Is the film anterioposterior (AP), posterioranterior (PA) or lateral?
   • Is there good penetration? Can you distinguish the vertebrate?
   • Has there been good inspiratory effort? Count ribs—10 ribs suggests good effort.
3. Airway:
   • Look for tracheal deviation.
   • Look for absent lung markings to suggest a pneumothorax.
   • Look for a pneumomediastinum.
4. Bony structures:
   • Identify rib, clavicle, scapula and sternum fractures
5. Cardiac silhouette
   • Up to 1/3 of the width of the diaphragm is normal
6. Diaphragm
   • Look for free air under right hemidiaphragm (performation)
   • Look for stomach, bowel or nasogastric tube above the diaphragm
7. Everything else:
   - Pleural space/external soft tissues:
     • Look for fluid collections (hemothorax, chylothorax, pleural effusion).
     • Lymph nodes
     • Subcutaneous emphysema
- **Lung parenchyma**
  - Opacities, nodules, vascularity, bronchial cuffing, tram tracks
  - Location of consolidations
    a. Obscured right (R) costophrenic angle=right lower lobe
    b. Obscured left (L) costophrenic angle=left lower lobe
    c. Obscured right heart border=right middle lobe
    d. Obscured left heart border=left upper lobe

- **Mediastinum**
  - Look at size of mediastinum (>8cm = aortic dissection)
  - Look for enlarged cardiac silhouette (>1/2 thoracic width at base of heart = CHF, cardiomyopathy, pericardial effusion)

- **Tubes and lines**
  - Identify all tubes and lines
  - Endotracheal tube should be 2 cm above the carina—big problem if in the right mainstem bronchus
  - Chest tube should be in pleural space, not parenchyma
  - NGT should be in stomach and uncoiled
  - Tip of central venous catheter (central line) should be in superior vena cava (not right atrium)
  - Tip of Swan-Ganz catheter should be in pulmonary artery
  - Tip of transvenous pacemaker should be in right atrium
Steps in EKG Analysis

Rate:
- Think 350, 150, 100, 75, 60, 50 bpm (=300/# large boxes between QRS peaks);
- Tachycardia = >100 bpm
- Bradycardia = <60 bpm

Rhythm: regular? ps before every q?
- Sinus rhythm: p-wave before every QRS wave
- Junctional rhythm: AV node initiates beat--narrow QRS complex in absence of p waves
- Ventricular rhythm: ventricle initiates beat--wide QRS complexes
- Ventricular fibrillation: erratic ventricular rhythm—**medical emergency**!
- Torsades de pointes: v-fib with a ribbonlike pattern; associated with QT prolongation
- Heart blocks (see description of intervals below)
- Left Bundle Branch Block:
  --QRS complex ≥ 0.12 ms; RSR' in V₅ and V₆; diffuse ST elevation
- Right Bundle Branch Block:
  --QRS complex ≥ 0.12 ms; RSR' in V₁ and V₂; deep S waves in I, aVL, V₅, V₆
- Left anterior fascicular block (LAFB)—unexplained left axis deviation
- Left posterior fascicular block (LPFB)—unexplained right axis deviation
- Bifascicular block: RBBB but with leftward axis deviation; caused by RBBB+LAFB
- Afib: irregularly irregular QRS complex with no visible p waves
• Atrial flutter: sawtooth pattern of p waves in inferior leads; rate of 200-400 bpm
• Wandering pacemaker: ≥ 3 different p waves with ventricular rate <100 bpm
• Multifocal atrial tachycardia: ≥3 different p waves with ventricular rate >100 bpm
• Wolff Parkinson White syndrome: short PR interval; delta wave slurs upstroke of R wave

Axis
• Lead I up, avF up: normal axis
• Lead I up, avF down: left-shifted
• Lead I down, avF up: right shifted
• Lead I down, avF down: extreme right axis deviation

Intervals
• Normal PR interval: .12-.20 seconds
  o Short PR—WPW syndrome with a delta wave or slurred QRS upstroke?
  o Long PR interval: heart block
    ▪ First degree block: PR interval >.20 sec
    ▪ Second degree (Mobitz Type I, Wenkebach) block: PR interval lengthens progressively until QRS is dropped
    ▪ Second degree block: (Mobitz Type II): PR interval constant but one QRS is dropped at fixed interval
    ▪ Third degree heart block: complete AV dissociation
• Normal QRS interval: /\=.12 seconds
  o Prolonged QRS signifies that the ventricle initiating the heart beat
Differential diagnosis of prolonged QRS: WPW, bundle branch block, tricyclic overdose

**Hypertrophy**
- Left ventricular hypertrophy
  - S wave in V1 + R wave in V5 or 6 ≥ 35 mm
  - R wave in V5 or V6 ≥ 25 mm
  - R wave in lead aVL ≥ 11 mm
- Right ventricular hypertrophy
  - R wave in V1 > 5 mm
- Right atrial hypertrophy
  - Tall or peaked p waves
  - >2.5 box height of p wave in lead II
- Left atrial hypertrophy
  - Broad or notched p waves
  - >1x1 box depression in p wave in V1

**Ischemic changes**
- T-wave inversions and/or ST depressions ≥ 1 mm: ischemia or NSTEMI (subendocardial infarction)
- ST elevations: STEMI (transmural MI)
- Diffuse ST elevations or electrical alternans (beat-to-beat change in R wave height): pericarditis
- Flattened T-waves
- Q waves indicates an old infarct

**Bundle Branch Block**
- Right Bundle Branch Block: RSR' in V1-3 with ST depression and T wave inversion
- Left Bundle Branch Block: notched R wave in I, aVL, V4
### Resources by Rotation

#### Medicine

<table>
<thead>
<tr>
<th>Study Resources</th>
<th>Things to keep in your pockets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Case Files (Internal Medicine)</td>
<td>1. Pocket Medicine (Sabatine)</td>
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<tr>
<td>2. Pre-Test: Internal Medicine</td>
<td>2. Sanford Guide to Antimicrobial Therapy</td>
</tr>
<tr>
<td>3. American College of Physicians Journal Club (available through Ebling) for EBM surveillance)</td>
<td>3. Maxwell Quick Medical Reference Guide</td>
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#### Surgery

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<tr>
<td>1. Case Files: Surgery</td>
<td>1. Surgical Recall (Book or on PDA)</td>
</tr>
<tr>
<td>2. Current Surgical Diagnosis and Treatment (Lange)</td>
<td>2. Iris scissors</td>
</tr>
<tr>
<td></td>
<td>3. Surgical tape and sterile 4x4s</td>
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</tbody>
</table>

#### Neurology

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<tr>
<td>Lecture handouts</td>
<td>Reflex hammer</td>
</tr>
<tr>
<td></td>
<td>Pen light</td>
</tr>
<tr>
<td></td>
<td>MMSE (in Maxwell’s or Psych Booklet)</td>
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</tbody>
</table>
Pediatrics

Study Resources
1. Peds In Review (linked from Ebling)
2. Harriet Lange (useful pocket book for sub-Is, with dosages)
3. www.aafp.org (good articles on general peds and some patient materials)

Things to keep in your pocket
1. Calculator
2. Sanford Guide to Antimicrobial Therapy
3. A small, safe toy to distract with (name tag animals)

OBGYN

Study Resources
1. ACOG Practice Bulletins (www.acog.org - need membership; generally published in Obstetrics and Gynecology)
2. American Society for Colposcopy & Cervical Path (www.asccp.org)

Things to keep in your pocket
1. Gestational Age Wheel
2. Reflex Hammer

Psychiatry

Study Resources
1. Pretest – Psych
2. Case Files
3. psychresidentonline.com

Things to keep in your pocket
1. Psych Reference Guide (provided by clerkship)
Primary Care

Study Resources
1. www.aafp.org
2. www.familydoctor.org (for patient handouts)
3. United States Preventive Services Task Force
   (http://www.ahrq.gov/v/clinic/uspstfix.htm)

Things to keep in your pocket
1. Free USPSTF Recommendations available for order
   (http://www.ahrq.gov/v/clinic/uspstfix.htm)


**These are in addition to the coursebooks recommended by the course director. We also recommend that you bring this pocketbook along with you whenever you might need a bit of inspiration.
Useful References for Evidence-Based Medicine:

National Guideline Clearinghouse:  
http://www.guideline.gov/ -- Good reference site for quick summary of current evidence-based guidelines for a variety of medical conditions:

US Preventive Services Task Force:  
http://www.ahrq.gov/clinic/uspstfix.htm -- Good reference for preventive medicine guidelines

Cochrane Collaboration --  
http://www.cochrane.org/ -- good summaries of current evidence-based medicine

SumSearch -- http://sumsearch.uthscsa.edu/ -- searches multiple evidence-based medicine resources simultaneously

Disease Specific Guidelines:
2006 Sexually Transmitted Diseases Treatment Guidelines:  

Useful Websites for Patient-Oriented Leaflets:  
Trip Database -- http://www.tripdatabase.com/

Online heart sounds:  
The Auscultation Assistant:  
http://www.med.ucla.edu/wilkes/Systolic.htm
Clinical Pearls References


UW-Madison Emergency Medicine Medical Student Reading Guide taken from *Clinical Problem Solving in Emergency Medicine*. Hamilton, 2nd ed


http://www.labtestsonline.org
Notes

Locker
Number:_____ Combination:_______

Anatomy Lab Codes:
  Outside Door:____________________
  Room Door:____________________

My House’s Door Code:_____________

Rotation Codes:

Call room
Room Number:_____ Code:________

Work-room
Room Number:____________________
Door codes:______________________

Supply room
Room Number:____________________
Code:__________________________

Names/pagers of my current team’s residents

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