EMRA Wellness Guide

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Chapters

Preface

Residency is one of the most challenging times in the career of a physician. In addition to the stressors of working in a fast-paced, high-acuity, and information-poor setting, emergency medicine (EM) residents also have limited autonomy when it comes to shift scheduling, clinical responsibilities, and even financial support. Our vision was to create an on-the-go and easy-to-use resource tailored for EM residents, who may not have the time or experience to know where to find answers to questions like, “How can I make my night shifts more bearable?” or “How do I recover and continue to take care of patients after a bad case?” We have compiled the best available resources and evidence-based knowledge all here in one reference to help EM residents have a long and fulfilling career in one of the most amazing jobs out there.

CHAPTER 1

Mindfulness and the Emergency Medicine Mind

Angela Chen, MD; Taryn Webb, MD

INTRODUCTION

The emergency department (ED), except on incredibly rare occasions, is a fast-paced, chaotic environment. By name and by design, it expects providers to work quickly, often making snap decisions based on limited information. This act-now-think-later mentality creeps into all aspects of our lives, often creating stress, anxiety, and emotional distress. One could argue that the inability to think in anything but a reactionary mode is harmful to both our wellness and our clinical practice.

How then can the emergency medicine physician overcome this? There have been numerous studies by neurobiologists and cognitive psychologists to investigate how human beings can modulate their emotional responses to stress and anxiety. Overwhelming evidence has demonstrated that practicing mindfulness, focusing on being aware of one's thoughts, emotions, and sensations, can help with "quieting the mind." This allows responding, rather than reacting, to the stressful situation at hand.

WHAT IS MINDFULNESS?

Mindfulness is the basic human ability to be fully present, aware of where we are and what we're doing, and not overly reactive to or overwhelmed by what's going on around us. Importantly, mindfulness allows us to take in the present moment but without judgment. It allows us to quiet the ego — the combination of judgements, desires, and assumptions whispered by our inner voice — and to focus on simply being aware. Michael Taft, self-described neuroscience junkie and meditation teacher, describes meditation as "paying attention nonjudgmentally to the unfolding of experience moment by moment."[1]

Buddhist tradition describes achieving mindfulness as being associated with the breath. Modern mindfulness subscribes to these Buddhist ideals and advocates for Vipassana meditation as one of the ways to practice mindfulness. While the concept of mindfulness has its roots in Buddhist tradition, modern mindfulness and meditation has evolved such that it can be practiced without components of spirituality or religion. Devout Christians, Muslims, and Jews point out that mindful meditation has been part of mystical traditions of all major faiths and plenty of meditation techniques teach the methods of mindful meditation in a secular, scientific context.

THE SCIENCE BEHIND MINDFULNESS

Recent neuroscience studies looking at brain scans of meditating subjects have begun to create a model on how mindful meditation is able to extend cognitive and physical effects. Subjects were placed in an MRI scanner while being asked to train their attention on the sensation produced by breathing. Subjects were asked to hit a button when they found their minds wandering, then restore attention to the gradual rhythm of the inhaling and exhaling. During this exercise, scientists were able to identify four phases of the cognitive cycle: mind wandering, becoming aware of distraction, reorienting attention, and resumption of focused attention, all of which activated different brain networks. They found that compared to novices, veteran meditators showed increased activity in the brain networks that allowed for increased attention and focus but paradoxically had less activation, suggesting that continued meditation allowed subjects to maintain a focused state of mind with less effort — what some might call being in "the zone."[2]

MRI scans show that after an eight-week course of mindfulness practice, the amygdala, the region of the brain associated with fear and emotion, appears to shrink. As the amygdala gets smaller, the prefrontal cortex, the region of the brain associated with higher order brain functions such as awareness, concentration, and decision-making, becomes thicker.[3] With meditation, primal, automatic responses are downregulated in favor of more thoughtful ones.

There is also recent evidence that breathing itself can activate neural pathways that lead to a meditative calm. In 1991, a group of neuroscientists at the University of California, Los Angeles, discovered the pre-Bötzinger complex, an area containing neurons that fired rhythmically in time with each breath, which functions like a respiratory pacemaker. These same scientists then removed part of the neurons that make up this complex in mice such that the mice breathed more slowly than normal mice. They found that the mice with altered breathing were unusually calm. They discovered these neurons regulating breath also formed connections with the locus coeruleus, another area in the brainstem involved in modulating arousal and emotion.[4]

This evidence, along with recent discoveries that the brain has great neuroplasticity and can be permanently changed through experience, suggest that similar to practicing a technical skill like intubating, we can train our minds to be calmer, quieter, and more focused.

CLINICAL BENEFITS OF MINDFULNESS

Recently, the medical community has increased awareness of burnout, depression, and even suicide of physicians and other medical professionals. There is growing concern that the deleterious effects of stress, such as difficulty with interpersonal relationships, substance abuse, depression, and anxiety, may develop or become amplified in medical school and residency. Uncontrolled stress can also lead to professional difficulties, and may especially impact humanistic qualities that are crucial to optimal patient care.

It is often suggested that implementing skills and techniques, such as mindfulness and meditation, into daily practice may be one mechanism to combat this growing epidemic. Like any new habit, adopting meditation into a daily routine takes time and is likely to be more beneficial if it is incorporated earlier in life. This is not a new concept, as there have been numerous studies examining mindfulness in medical students as a means of stress reduction. A group of psychologists at the University of Arizona studied a cohort of 200 pre-medical and medical students in 1998, and introduced them to a short course on meditation-based stress reduction interventions. At the completion, they noted a significant reduction in self-reported anxiety, in overall psychologic distress, and an increase in overall empathy level scores.[5] More recently, researchers in Australia published a similar study this year, but instead they narrowed their subject group to EM interns. After a 10-week intervention, their findings were consistent with the results of the medical student study: participants reported a large and significant reduction in stress and symptoms of burnout.[6]

A growing number of leaders in the EM community are becoming more intrigued by the practice of mindfulness in everyday life. In a recent talk, Scott Weingart likens the benefits of meditation to those of exercise; instead of working out to live longer, he calls meditation work "to live better." Per Weingart, one of the key objective benefits to mindfulness is that it offers the practitioner the ability to choose their response to different situations and stimuli. Through the practice of mindful meditation, one develops the ability to create a "space" between the stimuli and the response. This space is a period of decision-making time, which allows the practitioner a brief moment to choose a reaction.[7] A practiced meditator may develop an awareness of his/her emotions and thoughts, and prevent them from becoming out of control or creating mental distress. In the ED, providers often face a range of emotions and difficult situations throughout the day. Instead of getting angry at a frustrating situation, for example, a provider may be able to channel those emotions more effectively and respond to the stimulus in a less reactive way.

The beneficial effects of meditation are numerous. Many practitioners describe better stress control, improved insight into one's emotions and body sensations, heightened concentration, and an overall deeper appreciation of the good things in one's life. One of the founding principles of meditation is being present and aware, without being judgmental or overwhelmed. After mastering this, normal daily irritants or distractors become less disruptive. This may translate in the ED to something as simple as the ability to ignore a beeping monitor or something more intense like tolerating an angry consultant. Mindfulness has the potential to be an extremely important asset to the daily life and practice of medical providers: It can be easily implemented, can be practiced just about anywhere, and is the most non-invasive form of treatment for psychological distress.

SAMPLE MEDITATION EXERCISES

BASIC MINDFULNESS MEDITATION

1. Sit comfortably, in a position that keeps your spine straight.
2. Feel your breath. Pick a spot: nose, belly, or chest. Feel the in-breath and the out-breath. You might find it beneficial to make a soft mental note like "in" or "out" to help stay focused on your breath
3. Every time you get lost in thought, gently return to the breath. Forgiving yourself for being "distracted" and starting over is a key component of this meditation.
4. Counting your breaths may help you stay focused. Start at 1, and every time you get lost, start over. If you reach 10, start back at 1.

CALMING YOUR MIND ON SHIFT

1. Take a deep breath and then begin mentally listing things that fall into a particular category, such as "things that are green."
2. Continue to do this until you feel calm.

This particular exercise is helpful on shift when you feel overwhelmed or frustrated because it allows you to engage in a practice that decreases your state of arousal.

BODY SCAN MEDITATION

1. Sit, stand or lie down.
2. Start at one end of your body and work up or down. Bring your attention to each body part — your feet, your calves, your knees, your thighs, and so on. When you get to your head, reflect on how you feel. After reaching the top, work your way down.
3. Every time your mind wanders, gently bring it back to the sensation in your body parts.

WALKING MEDITATION

1. Stake out a stretch of ground.
2. Slowly pace back and forth, noting: lift, move, place with every stride. Try your best to feel each component of every stride.
3. Every time your mind wanders, gently bring it back to your stride.

MINDFUL EATING

1. Pick a small piece of food, such as a raisin, piece of cheese, or cookie.
2. First, look at the food and notice its color and texture.
3. Next, close your eyes and explore the food with your sense of touch.
4. Then, smell the food.
5. Take your bite of food, being sure to chew very slowly while focusing on the sensation of chewing.
6. Finally, focus on the flavor of the food.

OBJECT MEDITATION

1. Choose a favorite or interesting object, such as a flower or a rock.
2. Spend several minutes observing every aspect of it: shape, hues, textures, smells, tastes.

RECOMMENDED APPS, BOOKS, AND WEB RESOURCES

RECOMMENDED APPS	
Headspace *$7.99/month*	Guided meditations in time frames as short as 2 minutes and as long as an hour
Calm *$12.99 per month/ $60 for the year*	Free guided meditations in sessions that run from 3 minutes to 25 minutes, with more meditations available with a subscription. Also features more than 25 soothing nature sounds.
10% Happier *$7.99/month*	Led by some of the most respected mindfulness teachers in the world
Insight Timer *Free*	4,000+ guided meditations, talks, and podcasts

The authors have no affiliation, sponsorship, or any partnerships with any of the recommended materials.

RECOMMENDED BOOKS

- The Mindful Geek: Secular Meditation for Smart Skeptics, by Michael W. Taft
- Insight Meditation: The Practice of Freedom, by Joseph Goldstein
- Buddhism Without Beliefs: A Contemporary Guide to Awakening, by Stephen Batchelor
- 10% Happier: How I Tamed the Voice in My Head, Reduced Stress Without Losing My Edge, and Found Self-Help that Actually Works — A True Story, by Dan Harris

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PODCASTS / WEBSITES
All It Takes is 10 Mindful Minutes TED Talk by Andy Puddicombe Free Guided Meditations from UCLA Mindful Awareness Research Center EMCrit — Vipassana Meditation The Overwhelmed Brain — a podcast on personal growth, with episodes on meditation and banishing negative thoughts Mindfulness in Plain English

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CHAPTER 2

Debriefing and Decompressing

Lara Vanyo, MD, MSc; Angela Chen, MD

Group Debriefs

Individual Debriefs

GROUP DEBRIEFS

What is a debrief? A debrief is a dialogue to discuss the actions and decisions involved in a patient care situation and how to improve for the future.[1]

Why debrief?

1. To learn both how to function within a team setting and about your individual successes and mistakes
2. To regroup and take time to reflect on the incident that just occurred
3. To better understand the case and why it was led a certain way
4. To recognize different roles and that blame does not fall on any one individual
5. For patient safety and quality improvement — that is, to be cognizant of how your actions affect the patient and continue to improve with each future patient[2-5]

Who debriefs? Everyone involved in the case: Attendings, residents, medical students, nurses, technicians, social workers, respiratory therapists, etc. The debrief leader may be anyone in the group who chooses to arrange the meeting. The debrief leader does **not** have to be the clinical code leader.

When do we debrief?

1. After acute resuscitations
2. After significant, unusual, or poor-outcome cases
3. Regularly for teaching points

Where do we debrief? In a quiet, preferably private, space. Options include the staff lounge, computer work area, grief room.

How long do we debrief? 7-10 minutes. This is intended to fit within the ED workflow.

How do we debrief? In 6 easy steps outlined below.

6 STEPS TO DEBRIEFING[1]

1. **Introductions (*1 minute)***
   Beginning with debrief leader, each member of the debrief introduces him or herself by name, role in the emergency department, and role in the case.
2. **Case summary (*1 minute)***
   The leader of the resuscitation, or whomever else is available and able, summarizes the medical case. At this time, the debrief leader should identify those who demonstrate a significant emotional response to the case and acknowledge they will speak separately afterward.*
3. **What went well (*2 minutes)***
   Allow all members of the group to contribute their thoughts on the positive aspects of the case, focusing on teamwork and leadership, rather than medical interventions.
4. **What could have been done better (*2 minutes)***
   Allow all members of the group the opportunity to discuss problems related to the case. The focus here should be on issues related to team dynamics, including subjects such as communication, leadership, and efficiency, rather than the medical management.
5. **What would you do differently in the future/How could we improve for the future (*2 minutes)***
   Allow all members of the group the opportunity to discuss ways to improve upon team dynamics issues.
6. **Summary of debrief including future improvement goals (*2 minutes)***

Debrief leader or another group member summarizes the discussion and major take-away points.

**Critical Incident Stress Debriefing (CISD) represents a distinct procedure from the aforementioned group debrief techniques. CISD involves the management of emotional stress responses to adverse events and the prevention of pathologic distress. CISD should be performed in the presence of a trained professional and typically occurs 24-72 hours after an incident.[6,7] Should an individual in a debrief group demonstrate an emotional reaction to a case, the debrief leader should offer support and acknowledgement, provide an opportunity for the individual to briefly step away from clinical duties, and offer resources for further discussion.*

How do we ensure efficient, high-quality debriefs wherein we are evaluating the proper features of teamwork? Features of high-performance teamwork are outlined in the following table. These represent important features of an effective team and should be evaluated during the debrief.

FEATURES OF HIGH-PERFORMANCE TEAMWORK[1,4,5,8]	
LEADERSHIP 1. Decisive 2. Conflict resolution 3. *Flatten hierarchy 4. Facilitates information sharing 5. Delegation 6. Calm atmosphere 7. Big picture oriented	**SITUATION ASSESSMENT** 1. Adapt to resource availability 2. Ask for clarification when necessary 3. Know limitations 4. Role flexibility 5. Call attention to errors 6. Time critical actions appropriately 7. Reassess and advocate for the patient
COMMUNICATION 1. Call outs 2. Closed loop communication/check-backs 3. Team members provide situational updates 4. Speak with patient and family 5. Organized hand-offs/information exchange	**SUPPORTING BEHAVIOR** 1. Help colleagues 2. Task assistance 3. Feedback 4. Conflict resolution 5. Use critical language to voice concerns
**All members of a team should feel comfortable speaking up and addressing issues with the team leader*	

What are some tips to ensure a smooth debrief? Debriefs are not always easy, and roadblocks may be encountered. Read on for tips on how to achieve successful debriefs and avoid common pitfalls.

BEST PRACTICE TIPS[5]

1. **Debriefs are diagnostic.**
   Use debriefs to identify a team's strengths and weaknesses.
2. **Administration must provide supportive learning environment.**
   Hospital administration should encourage and allocate time to debriefs to allow a culture shift toward regular debriefs.
3. **Encourage the team to be attentive to the teamwork process.**
   Before the case or code begins, inform the team that a debrief will occur afterward, allowing them the opportunity to pay attention to the teamwork process during the resuscitation.
4. **Train debrief leaders.**
   Prepare for debriefs through educational sessions and simulation so individuals know how to function as debrief leaders.
5. **Ensure that all team members feel comfortable.**
   The debrief leader should flatten the hierarchy and enable all members of the team to speak freely. Participation should be encouraged from all members.
6. **Focus on a select few critical performance issues.**
   Given time limitations, hone in on a few major issues and how to improve these.
7. **Discuss specific teamwork interactions.**
   Focus on the teamwork processes during the debrief, such as effective closed loop communication and organized information exchange.
8. **Support feedback with indicators of performance.**
   If the debrief leader offers feedback linked to performance - for example, "When a call out for epinephrine was made with the specific dose included, this was given rapidly and correctly" — this leads to improvements in future debriefs.
9. **Process feedback > Outcome feedback**
   The purpose of the debrief is to improve upon teamwork effectiveness in the future, and as such, focusing on the negative outcome is less helpful than focusing on the process that led to this outcome.
10. **Provide individual and team-level feedback.**
    In a non-accusatory way, inform the group of individual issues as well as teamwork-related problems.
11. **Minimize delay between event and debrief.**
    The sooner the debrief, the better the recall and learning experience as a whole.
12. **Record conclusions made and goals set.**
    Write down major topics of discussion both for future reflection and to track progress.

INDIVIDUAL DEBRIEFS

Debriefing and decompressing can take on many different shapes and sizes. The purpose is for individuals to express themselves in a healthy and cathartic manner.

The Arts: Reflective Writing, Painting/Drawing

Reflective Writing

Reflective writing allows an individual to place thoughts onto paper, whether in the form of a story, creative piece, or literal recounting of an event and associated emotions. Writing about a difficult event can help one to sort through emotions and even discover those about which he or she was unaware. This process can help one to draw conclusions and gain a sense of closure.

Reflective writing may be done privately as journaling, or encouraged as part of a curriculum. At Case Western Reserve University School of Medicine, a writing curriculum was established to continue throughout all years of medical school, with new topics and types of writing introduced.[9] Students would graduate with a final portfolio of their experiences as they personally interpreted them.

Painting/Drawing

Creating artwork through painting and drawing may provide an important outlet for the emotional responses one may have to a workplace experience. This form of decompressing enables a release of sadness, fear, anxiety, and guilt into a concrete creation that can be used privately or shared to encourage discussion about a difficult event. In the words of one artist-physician, "Once formed into a piece of art, these life-altering moments … allow all of us to join in reflection in our time and at our own pace."[10]

Exercise

Physical exercise is a well-studied medium for stress relief and decompression. Exercise can allow for clearing of the mind through meditation in motion, as one is forced to focus on a single task. Regarding mood, not only do endorphins promote positive states of mind, but also exercise in general improves self-confidence and reduces feelings of depression and anxiety.[11] Exercise can be adjusted to fit into a busy schedule. Examples include:

- Walking: may be done in long stretches or short increments of 10 minutes throughout the day
- Running: intervals or long distance
- Swimming
- Yoga
- Group exercise: enables a sense of camaraderie and shared experience
- Sports: the gratification of teamwork and socializing accompanies the fitness benefits

Simply taking the stairs rather than an elevator and opting to walk rather than drive can have significant cumulative effects as well. Finding the right exercise for a certain lifestyle is important and the benefits can be great.

Social Support Systems

While debriefing in the hospital may provide one type of decompression, sometimes further closure is required through discussion with those in our social support systems. Protecting patient information is important in these cases; however, expressing one's emotional reactions is safe and often necessary. One may speak with different individuals for different purposes. For example, venting about work-related issues may be easiest among family and colleagues, whereas personal issues may be best shared with friends. Determining whom one trusts and whose advice one appreciates early in a career may be immensely helpful as new concerning scenarios are encountered.

Individual Therapy

For many individuals, sharing experiences and emotional reactions with colleagues and loved ones may not come easily. Therapy with a trained psychologist or psychiatrist who remains impartial and uninvolved in one's personal life is a safe option. This allows for discussion with an objective, confidential audience. Some hospital systems have employee assistance programs which can provide a therapist, others may require a personal search. For specific interventions and approaches, see the Sample Meditation Exercises section in the chapter "Mindfulness and the Emergency Medicine Mind" of this guide.

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CHAPTER 3

Rapid Team-Building

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Socializing Outside the Emergency Department

Bad Interactions

Most individuals employed in full-time jobs spend a substantial number of their waking hours dedicated to work or work-related activities. In the field of medicine, residency is at the far end of the spectrum, with residents not only being obligated to spend significantly more of their time physically at work, but also a significant amount of their personal time focused on supplementing their on-shift education with reading and building an academic portfolio. Consequently, residents often spend more time with work colleagues than with their own families and friends.

Within the ED, emergency medicine residents face the additional challenge of working in one of the most highly charged environments within the hospital. It is within this environment that physicians are tasked to not only make complicated medical decisions and navigate the complexities of the hospital care delivery system, but also contend with the emotional experience of their patients as well as their own and that of their team.

The concept of the physician as a team captain is easily visible in the ED, where the attending physician is often the center of the beehive, surrounded by students and residents waiting to present patients, nurses awaiting signatures on electrocardiograms, family members waiting to speak to the doctor in charge, or consultants simply looking for the easiest target to share information. Unfortunately, the skills needed to lead the team remain largely a part of an informal and hidden curriculum in residency — ie, learned by direct observation but rarely explicitly taught.[1] In this capacity, the physician must be not only the healer and teacher, but also role model, team builder, manager of complex relationships with other physicians, trainees, consultants, physician assistants, nurses, techs, transporters, as well as administrator to ensure that multiple concurrent care plans are efficiently carried out, and quite importantly, morale monitor ensure that everyone feels appreciated for their hard work.

This chapter discusses simple strategies to assist in the development of a healthy and resilient team dynamic within the ED, as well as create positive relationships with your colleagues, forming the foundation to ensure a successful shift and career in the ED.

DEPARTMENTAL TEAM-BUILDING

Learn Names

Learning someone's name is crucial and is especially important in teaching institutions where there is a high turnover of staff. Knowing someone's name in the hospital changes the dynamics of the relationship by infusing a layer of familiarity, as well as accountability. Conversely, remind yourself of the horrible feeling you may have had when you've been working with someone for a period of time, but you don't know their name.

Team Briefs & Huddles

At the start of shift change call for a team brief — and **be sure to include RNs, techs and support staff**. Have everyone introduce themselves and their role. It will help you remember names more easily, which will make for a more pleasant working environment. You can call another team huddle midway through a shift when you see the department is getting busier and more tense as a means to take people to a positive place by providing a cognitive break, a few pats on the back, and some chocolate.

In need of some rapid team bonding during the huddle? Try one of these quick icebreakers.

- Ask your team members to share:
  - Name, role, and "One Good Thing" going on in their lives (upcoming vacation, recent promotion, how their child is doing in school, etc.)
  - The name of their pets
  - Their favorite band
  - Their childhood nickname
  - Their first email address or screen name
  - The farthest they have ever travelled
  - Why they chose emergency medicine as a career
- Ask a hypothetical question
  - "What would you do with a million dollars?"
  - "If you had a boat, what would you name it?"
  - "If you could choose another career outside of medicine, what would you do?"
- Learn a phrase in a new language! Do any members of your team speak another language? Ask them to teach the team a simple phrase, such as "Hello, my name is ___" or "Where is your pain?"

- Once your team gets used to your daily event, you can eventually make the game more active by trying “Snap Pass” or using other improvisational icebreaker games.
  - Snap Pass
    - To play “Snap Pass,” the team leader will first start snapping her/his fingers, and concurrently, state their name and role. The team leader will then look another team member in the eyes and “Pass-the-Snap” to that person, who must “Catch-the-Snap” and then state their name and role before passing it on to the next team member.
    - This type of improv game can be slightly altered by turning the “snap” into a clap, or any other imaginary object like volleyball, tennis ball, hockey puck that can be passed around.[2]

Three-Ring Binder

Create 3-ring binders with everyone’s picture and name, including all doctors, nurses, housekeeping, and administrators. Leave a copy in the common break areas for everyone to leaf through during a break.

Facebook and Other Social Media

Another option to assist in team-building at work is to become friends on Facebook (or other platforms) and learn a little about your colleagues. If you choose this option, you will have to accept that your actions on your profile are equally as reflective of you as your real-life actions; consequently, you will have to manage your profile responsibly. Please note, before befriending and workmates, you may need to adjust several privacy settings and/or remove photos and ensure your profile is “clean.”

Managing social media has become increasingly complicated, with issues ranging from deciding what to post, with whom to become friends, and what to “like.” One thing to be certain of though, is that anything you post online may become discoverable at some point, thus we must be extremely cautious with our online presence and the content we post.

Respecting Everyone (and we mean EVERYONE)

10 & 5 Rule[3]

The 10 & 5 rule is typically employed in the hospitality and service industry and recommends that if you are within 5 feet of someone say hello, or if you are within 10 feet of someone, make eye contact.

Thank Your Team

It is as simple as taking a moment to give them praise and thank them on-shift when you witness them doing a great job or being kind to a patient or other provider. Read your colleagues, and if you see them struggling, offer a pat on the back — it can go a long way. Depending on the individual or situation, you may want to provide the praise in public or privately. Conversely, if needed, be sure to criticize in private. As a departmental project, you may want to consider creating a “Heroes” or “All-Stars” box where individuals can submit the names of colleagues with a brief description of how they went above-and-beyond for a patient, colleague, etc. The names and events can be posted monthly, providing departmental recognition. If the situation merits it, take that extra step and contact their supervisor to ensure their positive actions are recognized within their department.

Stress in the ED is natural, and on occasion, tempers can flare with harsh words being uttered either intentionally or unintentionally. After the situation has been resolved, it is vitally important to take a moment to perform a personal root-cause-analysis, then discuss it with and apologize to the other party. Though this is a difficult step, ultimately it will lead to a better understanding of the other individual and how to cope with them in the future.

Effective Verbal Communication and Involving All Team Members in Plans

All health care providers working in the emergency department are there for sole purpose of taking care of patients. Thus effectively communicating the details of a patient’s treatment plan is central to its implementation. Often, however, junior physicians can get into a “silo” mentality and work exclusively with the electronic medical record and neglect the nurse on the receiving end of the orders. Make it a priority to verbally communicate treatment plans, important case details, and priority cases with your nursing and ancillary staff. Not only does it build team cohesiveness, but also may lead to teachable moments for each.[4]

Be Nice to the Nurses

It is always a good idea to be seen as a contributor within the department and not above any task, whether it is transporting a patient to x-ray, emptying a urinal, making a bed, or collecting blood. All tasks are important tasks and all are a part of patient care. Though these are technically not a physician's job, depending on your hospital, the time of day, whether there is a full moon, your department can be easily overwhelmed, and helping out in these high-volume times can go a very long way to show that not only are your nurses a part of your team, but you are a part of theirs.

Socializing in the Emergency Department

Share some laugh as well as the tears.

While on-shift, preferably if it slows down, don't forget to take a few minutes to relax the team and have a laugh. Typically this may revolve around coffee and snacks, so consider intermittently surprising your team with a few treats.

Conversely, the ED also exposes us to extremely traumatizing events. Don't be afraid to pause to care for your colleague who appears to have been shaken by an event or situation.

Socializing Outside the Emergency Department

Most departments have traditions to host annual holiday celebrations, which can be a great way to "blow off some steam" together. While these are great ways to consolidate friendships and have fun, never forget they are work functions. As a work function, it is important to maintain control and not consume too much alcohol while at the same time having fun. Using this time to get to know your attendings and foster better mentorship relationships within your internal network can help create great opportunities down the road.[5]

INTERDEPARTMENTAL TEAM-BUILDING

Consultations

Relationships between emergency physicians and consultants, especially in training institutions, are inherently complicated. The interaction begins with the emergency physician, who has evaluated the patient and determined that either the skills needed to manage the patient are outside the scope of their training, or the patient will require inpatient admission to a specific service. On the other hand, the consultant is being drawn into a new situation and introduced to an emergency patient with an active disease process. As well, from the practical standpoint, the consultation adds another task to the consultant's daily task list, interrupts current tasks, meals — or even wakes them from sleep. The consultant, often an intern, will have to evaluate the patient and in turn convince their senior and attending that the patient does indeed require their services. Emergency physicians must respect, empathize, and be prepared to effectively and deliberately communicate the question of clinical importance.[6,7]

Consultation discussions themselves can be extremely stressful for attendings and trainees alike for a variety of reasons, including complex patient factors, hospital system issues, environmental factors, and even personal consultant issues. Historically, the skills needed to conduct a consultation have been picked up on-the-job by watching a supervisor or senior resident; however, there is a benefit to discussing and teaching these skills. Consider formal teaching sessions in small groups at conference to discuss and practice strategies on how to consult.[8] A commonly used standard of communication today is "SBAR" (situation, background, assessment, recommendation). Using this tool of communication can help organize thoughts for the emergency physician delivering the consultation and prepare the consultant for receiving the information. SBAR leads to clear, concise information — reducing frustration on the part of the consultant. Being mindful of the plight of the consultant is important, too. Remember they are all busy while also fielding pages and calls, so if communication is not clear in the first 1-2 minutes of a call it can taint the remainder of the interaction.

Engage Professionally with Your Colleagues

Consider hosting an invited lecture series, where a senior EM resident lectures to another department on a related EM subject, and vice-versa. It's a great opportunity for two groups to spend time in the same room and interact in environments that are less charged. Add to the event with coffee and light snacks, at least. As an added benefit, joint lectures can boost the CV of the organizer and presenters as well.

Interdepartmental Socializing Outside the Emergency Department

Most residencies provide protected time for weekly conference. Take advantage of this by arranging an activity the night before conference or the afternoon afterward, and invite another department. Consider starting an annual tradition early in the academic year to start the year off on the right foot.

Bad Interactions

On occasion, interactions can be quite poor or even descend into the realm of disrespect. Beyond infusing negativity into your day, disrespect and unprofessional behavior can impact patient care. For the recipient, especially the more junior residents, in the immediate post-insult period on-shift, there is a complex mix of intense feelings that may impact decision-making and inhibit normal function.[9] Though many people nimbly suggest "leave work at the door," it isn't always easy, and these negative feelings can be brought home and impact personal lives. The longer term sequelae of dealing with unprofessional behavior in combination with other factors can contribute to burnout and depression. Patient care can suffer as well. Consider, for instance, a surgical resident who has reputation as being rude, non-collegial, and unapproachable. Some emergency physicians will delay consulting until labs or imaging are finished, and this delay may have a detrimental impact on OR scheduling, bed allocation, initiation of transfer, or other elements of medical management.

One tool that can be used to resolve conflicts is the DESC Script[10] from TeamSTEPPS®.

DESC Script[10]
• Describe the specific situation or behavior; provide concrete data • Express how the situation makes you feel or what your concerns are • Suggest other alternatives and seek agreement • Consequences should be stated in terms of impact on established team goals; strive for consensus

Immediately following a bad exchange, the emotional charge may be too high to have a dispassionate conversation. Take some time to collect yourself and your thoughts. One example is, " When you called me useless in front of the patient and their family it made me feel like you don't respect me and negatively affected my rapport with the patient. If you have feedback for me in the future, can we please talk away from the bedside? I'm afraid if this continues then we won't be able to work together in a productive manner."

If after your best efforts the unprofessional behavior continues, discuss the incident with your chief or program directors, as this may not be a one-time issue with that resident, consultant, or staff member. Given the nature of our shift-work schedules, identifying problematic individuals is very difficult; we tend to dismiss rude behavior as a one-time incident. This may not be the case, which is why it is quite important to discuss with your supervisors, who may already be tracking this individual. Poor attitudes and behaviors are not new in medicine, and your program likely has a reporting system and remediation plans already in place.[11]

Harassment of any form should not exist in the workplace. If you do experience it, there are many avenues by which you should seek counsel, including your program directors, department leadership, GME office, ombuds office, etc. These types of interpersonal conflicts should never be dealt with on a one-on-one basis. By seeking institutional-level assistance, you may help identify problematic behavior patterns that otherwise could go unnoticed.

In conclusion, residency life is both rewarding and challenging. In our local hospital communities, we can help reduce the challenges by working together better as teams. Fundamental to this is being respectful and treating each other exactly how we'd like to be treated. Being mindful of each situation and individual we interact with will help reduce most conflicts and help promote a healthier environments for both providers and patients.

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CHAPTER 4

Sleep Better

Arlene S. Chung, MD, MACM

Sleep Basics

Circadian Rhythm Basics

Shift Scheduling and Smart Sleeping

Pharmacologic Aids

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Drowsy Driving

Great sleep can do wonders for your personal wellness. Even though working in the ED can sometimes make it seem impossible to get an awesome night's sleep, there are lots of ways to improve both your sleep quality *and* your ability to stay awake during those long ED nights.

SLEEP BASICS

Normal sleep has 5 stages.

- **Stage I** is the first and lightest phase of sleep. If someone taps you on the shoulder during Stage I, you might not even realize you had been sleeping.
- **Stage II** is a little deeper than Stage I, but still fairly shallow and not all that restful.
- **Stages III and IV** are considered the "deep sleep" phases when real recovery from a long day's work happens.
- **REM** (rapid eye-movement) sleep is super-special. In this phase, it's almost impossible to tell whether you're awake or asleep in REM on an EEG. One major difference, of course, is that your whole body except for your eyes is paralyzed in REM sleep so you don't go around acting out your dreams, since the most vivid dreams happen in this stage of sleep.

Over the course of a typical 8-hour night, you'll cycle several times through all 5 stages, with each stage lasting about 90 minutes and proportionally more REM sleep as the night goes on toward morning.

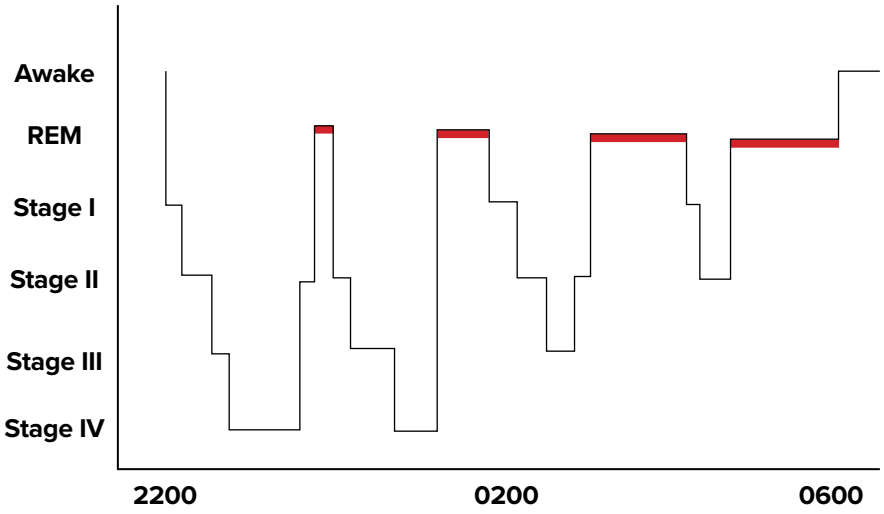

*FIGURE BY ARLENE S. CHUNG, MD, MACM

CIRCADIAN RHYTHM BASICS

The word "circadian" comes from the Latin *circa,* meaning "around," and *dia,* meaning "day." It describes any biological rhythm that follows an approximately 24-hour cycle. This includes things like body temperature, blood pressure, cortisol secretion, and bowel movements. External cues (called *zeitgeibers*, meaning "time givers" in German) such as sunlight and mealtimes help to keep your body's circadian rhythm in line with the external world, so you're sleepy when it's dark outside and awake when the sun's up.

SHIFT SCHEDULING AND SMART SLEEPING

Misalignment of sleep timing and circadian rhythm is the primary reason shift work is so taxing on the body. This is why sleeping during the day doesn't typically feel as restful as sleeping at night. However, it is possible to make the day-to-night (and night-to-day) transitions easier by understanding how your body responds and scheduling your shifts, requests off, and personal life accordingly.

- **It's easier to transition from days → evenings → nights**.
  - Your body's natural circadian rhythm is actually closer to 25 hours. This means it's easier to stay up later and get up later than vice versa. This also explains why jet lag feels worse when traveling east compared to west.
  - What you can do:
    - If you know you have a long string of night shifts coming up, prepare by going to bed progressively later for the few days leading up to your first night shift.
    - Encourage the person responsible for scheduling to use circadian rhythm principles when scheduling shifts. This is the official recommendation by the American College of Emergency Physicians (ACEP).[1,2] An example of a circadian rhythm principle would be to avoid rapid night-to-day transitions.
- **It's easier to transition fully (or not at all)**.
  - It takes your circadian body rhythms several days to transition fully from days to nights (or nights to days). A string of 4-5 night shifts may actually be the most difficult on your body because you only have time to partially transition to nights before having to switch back to days.
  - What you can do:
    - If you have a day or two off between multiple night shifts, try to stay on a nighttime schedule as much as possible. This might mean sleeping in, staying up late, or taking a long nap during the daytime if you can't sleep in.
    - If you have only one or two night shifts in a row, it may be easier to stay on a daytime schedule as much as possible. For example, after a single night shift try to be awake for a reasonable period of time during the day after the shift and go to bed at a normal hour.
    - Encourage the person responsible for scheduling to use circadian rhythm principles when scheduling shifts, as recommended by ACEP.[1,2] An example of a circadian rhythm principle would be to schedule a "night month" once or twice a year while the remainder of the year consists of primarily day shifts. Another alternative would be to spit a single ED block into two weeks of days and two weeks of nights.
- **Use your zeitgebers wisely**
  - Sunlight is one of the most powerful zeitgebers around.
    - Expose your eyes to sunlight in the "morning" or at the beginning of the time period when you want to be awake. You can substitute bright lights or a light a box if no sunlight is available (see "Non-pharmacologic Aids").
    - Limit your exposure to sunlight at "evening" or during the time period leading up to when you'd like to sleep. Wearing sunglasses when leaving work after a night shift and other light filtering tools may help (see "Non-pharmacologic Aids").
  - Other external cues that can help set your circadian rhythm properly (either to day or night) include:
    - Exercise
      - Exercise at the beginning of the time period when you want to be awake can mimic the blood pressure, temperature, and cortisol rise that usually occurs during the daytime. However, note that exercising too close to bedtime can actually prolong wakefulness.
    - Meal times
      - Use your enteric nervous system to entrain your central nervous system. Schedule mealtimes that correspond to breakfast, lunch, and dinner of your "daytime," whether you want that to be during the day or at night.
    - Supplements (ie, melatonin; see "Pharmacologic Aids — Sedatives")

PHARMACOLOGIC AIDS

Stimulants

- **Caffeine**
  - Caffeine is a stimulant belonging to the class of methylxanthines. It is the most widely used psychoactive substance in the world. Essentially it blocks adenosine in the sleepy receptors in your brain. When ingested from beverages such as coffee and soda, caffeine is readily absorbed by the small intestine within 45 minutes.[3] The half-life is relatively long and varies from 3-7 hours depending on factors such as pregnancy and age.
  - Small doses of caffeine (0.3mg/kg or 20mg for a 70kg person) administered once an hour have shown promise in maintaining cognitive function during extended periods of wakefulness.[4]
  - At doses of 600mg, the stimulant effects of caffeine may approximate those of modafinil or armodafinil (see below), although comparable effects have been seen with doses of caffeine as low as 200mg.[5]
  - Nicotine decreases the half-life of caffeine, making it less effective per dose.
  - Side effects can be similar to other stimulants and include nervousness, dyspepsia, and rapid heart rate. Some side effects, such as dehydration and elevated blood pressure, are ameliorated by regular use.
  - Pregnancy Category C
  - Approximate doses of caffeine by source:[6]
    - Coffee
      - The highest doses of caffeine in coffee are found in light roasted robusta coffee beans. The roasting process actually removes the effective dose of caffeine that reaches your brain.
      - An average 8oz cup of coffee typically contains approximately 100mg to 150mg of caffeine. Note that most “small” coffee sizes in the U.S. are actually 12oz or more.
    - Energy drinks
      - Multiple varieties are available.
      - They come in a wide range of concentrations, from 10mg to 40mg per fluid ounce (check labels). Note that many drinks come in cans of 16 fl. oz. or more.
      - Energy “shots” contain more caffeine per fluid ounce, typically 100mg per fluid ounce, or about ¾ of a standard shot glass.
      - These products often have significant amounts of sugar added.
    - Caffeine pills or tablets
      - Multiple varieties available
      - Typically contain 200mg of caffeine per tablet (check labels)
      - Note that many weight-loss supplements contain significant amounts of caffeine
- **Modafinil[7]**
  - Selective weak dopamine reuptake inhibitor, although the exact mechanism of action remains unknown
  - 200mg once a day by mouth, taken 1 hour prior to the start of the work shift
  - Official FDA indications for modafinil are narcolepsy, obstructive sleep apnea, and shift work sleep disorder.
  - Side effects (≥5%) can be similar to those of other stimulants and include headache, nausea, nervousness, anxiety, dyspepsia, and diarrhea.
  - Pregnancy Category C
  - Modafinil is a schedule IV drug, which means you’ll need a prescription. The FDA classifies schedule IV drugs as those with accepted medical uses in the U.S. and a low potential for abuse relative to schedule III drugs. Other schedule IV drugs include zolpidem, tramadol, and alprazolam.
- **Armodafinil[8]**
  - Armodafinil is the R-enantiomer of modafinil.
  - 150mg once a day by mouth, taken 1 hour prior to the start of the work shift
  - Official FDA indications for armodafinil are the same as modafinil (narcolepsy, obstructive sleep apnea, and shift work sleep disorder). Armodafinil was also approved in 2010 to treat jet lag.
  - Although armodafinil and modafinil have similar half-lives, armodafinil reaches peak concentrations later, which may help people with excessive daytime sleepiness related to conditions such as obstructive sleep apnea.
  - Side effects (5%) are similar to modafinil and other stimulants, including headache, nausea, nervousness, anxiety, dyspepsia, and diarrhea.
  - Pregnancy Category C
  - Armodafinil, like modafinil, is a schedule IV drug.

Sedatives

- **Alcohol**
  - Although alcohol can help you to fall asleep more quickly, it changes the architecture of your sleep cycle, which can result in waking up in the middle of your sleep period or otherwise disturbed sleep.
  - Alcohol proportionally decreases the amount of time spent in REM sleep and increases the time spent in Stage II sleep.
- **Antihistamines (diphenhydramine, hydroxyzine)**
  - Many over-the-counter "sleeping pills" actually contain antihistamines as the active ingredient.
  - Antihistamines cross the blood-brain barrier and block the H1 receptors in central nervous system, causing drowsiness.
  - Common side effects include persistent drowsiness, flushing, and dry mouth.
  - In overdose, antihistamines produce an anticholinergic toxidrome that can present as hallucinations, seizure, urinary retention, and in severe cases coma and death.
  - Pregnancy Category A (totally safe in pregnancy)
- **Melatonin[9]**
  - Melatonin is known as the "sleep hormone." It is a naturally occurring hormone secreted by the pineal gland in the brain. Melatonin levels typically rise sharply late in the evening, signaling to your body that it is time for sleep. Levels stay high throughout the night for the next 12 hours before dropping. Daytime levels of melatonin are almost undetectable.
  - Sunlight and other bright lights inhibit the release of melatonin (so if you are taking this medication after a night shift, be sure to put on a pair of sunglasses for the commute home).
  - Melatonin supplements can be found over-the-counter at pharmacies and health food stores. Most commercial products contain dosages that will elevate melatonin to much higher levels than are naturally produced by the body, although there have been no reported effects of toxicity or overdose. Note that commercial production of melatonin is NOT regulated by the FDA and it is possible that a wide range of concentrations of active ingredient may exist between different products.
  - Melatonin does not show any significant benefit in decreasing sleep latency compared to placebo in most randomized controlled studies. However, research does suggest a non-statistically significant trend toward improved sleep when melatonin is taken at the appropriate time for shift work and jet lag.
- **Nonbenzodiazepine sedative-hypnotics (table below)**

Name of Drug	Mechanism of Action	Indication	Dosage and Use	Common Side Effects[*]	Pregnancy Safety Category [#]	FDA Drug Classification [$]
Zolpidem[10]	Short-acting non-benzodiazepine that increases GABA activity in the same receptors activated by benzodiazepines.	Difficulty initiating sleep	5mg or 10mg tablets. Lowest effective dose recommended up to 3mg. Take immediately before a planned period of 7-8 hours of sleep.	Headache, next-day somnolence, dizziness. Withdrawal symptoms after prolonged use include insomnia, flushing anxiety, nervousness, panic attacks, and dyspepsia.	C	Schedule IV
Zolpidem, extended release[11]	Short-acting non-benzodiazepine that increases GABA activity in the same receptors activated by benzodiazepines	Difficulty initiating and maintaining sleep	6.25mg or 12.5mg tablets. Lowest effective dose recommended up to 3mg. Take immediately before a planned period of 7-8 hours of sleep.	Headache, next-day somnolence, dizziness. Withdrawal symptoms after prolonged use include insomnia, flushing anxiety, nervousness, panic attacks, and dyspepsia.	C	Schedule IV
Eszopiclone[12]	Short-acting non-benzodiazepine that increases GABA activity in the same receptors activated by benzodiazepines. Half-life of approx-imately 6 hours.	Difficulty initiating sleep	1mg, 2mg, and 3mg tablets. Lowest effective dose recommended up to 3mg. Take immediately before a planned period of 7-8 hours of sleep.	Unpleasant taste in the mouth, headache, next-day drowsiness, cold-symptoms	C	Schedule IV

Name of Drug	Mechanism of Action	Indication	Dosage and Use	Common Side Effects[*]	Pregnancy Safety Category [#]	FDA Drug Classification [$]
Zalepon[13]	Short-acting non-benzodiazepine that increases GABA activity in the same receptors activated by benzodiazepines.	Difficulty initiating sleep	5mg or 10mg tablets. Initial dose is usually 10mg for adults. Take immediately before a planned period of 7-8 hours of sleep.	Incoordination, next-day drowsiness, "pins and needles" feeling on the skin	C	Schedule IV
Ramelteon[14]	Melatonin receptor agonist	Difficulty initiating sleep	8mg tablets. Take 8mg within 30 minutes of a planned period of 7-8 hours of sleep. Do not take during or immediately after a high-fat meal.	Next-day drowsiness, dizziness, nausea, rebound insomnia	C	Prescription only (not considered a controlled substance)

[*] Zolpidem, eszopiclone, and zalepon have been linked in rare cases to situations in which people have gotten out of bed and performed various activities while asleep, such as driving, making and eating food, talking on the phone, sleep-walking, and having sex.
[#] Risk of fetal harm not ruled out.
[$] You'll need a prescription for any schedule IV drug. The FDA classifies schedule IV drugs as those with accepted medical uses in the U.S. and a low potential for abuse relative to schedule III drugs. Other schedule IV drugs include modafinil, tramadol, and alprazolam.

NONPHARMACOLOGIC AIDS

- **Aids to create the ideal sleeping environment**
  - The ideal sleeping environment is cool, dark, and quiet.
    - Sleep masks
    - Blackout curtains
    - Ear plugs
    - Temperature control (fans, air-conditioning)
    - White noise machines or recordings
- **Sunglasses**
  - Release of the "sleep hormone" melatonin (see "Pharmacologic Aids - Sedatives") is blocked in the presence of sunlight. Dark UV-blocking sunglasses worn before exiting the hospital can prevent the suppression of melatonin release and make falling asleep after a night shift easier.
- **Blue light filters**
  - Similar to sunlight, many electronic devices such as smartphones, e-readers, tablets, computers, and televisions release high energy wavelengths of light that can send activating signals to the brain, making it more difficult to fall asleep.
  - Special clear "blue light" filters designed to block these specific activating wavelengths are commercially available in a variety of forms, from screen protectors to sunglasses.
  - Some newer smartphones are also coming with a "night time" option that filters blue light and decreases brightness; check your phone and activate this option.
- **Light boxes**
  - Commercially available light boxes mimic the wavelength patterns of sunlight.
  - Exposure to bright light first thing in the morning (or as soon as you wake up prior to a night shift) can help to set your circadian clock to signal "daytime."
  - Light is also used in the treatment of seasonal affective disorder.
- **Exercise**
  - Exercise raises body temperature, blood pressure, heart rate, and activates the sympathetic nervous system.
  - Regular exercise may improve sleep quality in general.
  - Exercising first thing in the morning (or as soon as you wake up prior to a night shift) can help to set your circadian clock to signal "daytime."
  - However, vigorous exercise within 2 hours of bedtime can actually make it more difficult to fall asleep.

DROWSY DRIVING

The National Highway Traffic and Safety Administration (NHTSA) identifies both emergency personnel and shift workers as high-risk populations for drowsy driving. **That means YOU.** Drowsy driving is more serious than just feeling sleepy behind the wheel. The NHTSA estimates there are more than 72,000 police-reported crashes involving drowsy driving that injure more than 41,000 people and kill more than 800 each year.[15] Not only do drowsy drivers place themselves at risk of harm, but they also jeopardize the lives of passengers, drivers, and pedestrians around them.

If you're working nights or long hours, you might not be as alert as you think you are. When severely sleep-deprived, our body can experience "micro sleeps," brief periods of unconsciousness lasting up to 5 seconds, that might not even register as falling asleep at all. You can travel more than 100 yards in 5 seconds while driving on the highway. Scary.

Although it's clear that actually falling completely asleep while driving has deleterious consequences, research has shown that people who are sleep-deprived suffer cognitive delays on par with driving while intoxicated. Research using a driving simulator showed that subjects had a significant delay in reaction time and an increase in lane variability after being awake for 24 hours on a level comparable with a blood alcohol content of 0.10% — greater than the legal limit for alcohol intoxication while driving.[16]

The most common factors associated with a higher likelihood drowsy driving include:[17]

- Averaging less than 6 hours of sleep the previous night
- Driving for more than 3 hours
- Driving on an interstate type highway with a posted speed limit over 55mph
- Driving between 9 pm and 6 am

Drowsy driving warning signs:[18]

- Yawning, rubbing your eyes, or blinking frequently
- Trouble focusing, keeping your head up, or your eyes open
- Difficulty remembering the past few miles driven
- Drifting from your lane or hitting the rumble strip
- Slower reaction time, poor judgment

What you can do:

- **Let someone else drive**
  - Especially if you live in a city that offers reasonable transport by bus, subway, or rail, consider taking public transportation to work. Even if you fall asleep on the ride home, at least you won't be at risk of harming yourself or someone else.
  - Call a taxi.
  - Use a ride-sharing service. Many of them have a convenient app to make hailing an on-demand ride even easier.
- **Have a buddy**
  - Consider carpooling with another person with the same schedule. Not only will you help save the environment, you'll have someone in the car with you to help keep you awake and alert.
- **Sleep before heading home**
  - Ask if your department or hospital has call rooms available. Take a 15-30 minute nap after your shift before driving home.
  - If your hospital does not have call rooms, consider advocating for one.
  - Seek out friends, colleagues, or family who live closer as another alternative for a nap before driving when you're especially tired.
- **Pull over**
  - If you find yourself nodding off, find a safe spot to pull over to the side of the road and take a 15-30 minute nap.
- **Prioritize sleep (in general)**
  Life is busy and sometimes it feels like the easiest thing to cut corners on is your sleep time. But being sleep-deprived not only makes it more difficult to get your tasks done properly, it can put you at serious risk of harm. Try to prioritize sleep as much as you can on a daily basis.

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CHAPTER 5

Treat Your Body Right

Kevin Hu, MD

Impact of Shift Work on Overall Health

Nutrition

Exercise

IMPACT OF SHIFT WORK ON OVERALL HEALTH

In the United States, 1 in every 5 working men and women are shift workers. Considerable research has studied the deleterious effects of this schedule on general health and wellness — and emergency physicians are not spared.[1] There is a negative impact on diet and exercise and the consequences of shift work could even account for the reduction in average life span among shift workers compared to the general population.[2]

Studies have shown that variable working hours have led to changes in eating patterns and the effect of food on the body. From a physiologic perspective, endocrine changes can account for many of these behaviors. Night workers have shown a decrease in melatonin and other hormonal changes that account for the disruption of quality sleep, a higher rate of diabetes, and an increase in weight gain.[3] Furthermore, shift workers tend to eat more than those who work a regular day schedule.[4] The long-term consequences of these changes contribute to an increased rate of metabolic syndrome.

DIET

As discussed, dietary changes are common in shift workers, and the reasons behind them are multi-factorial. First, changes in secretion of hunger hormones account for an increased desire to consume more food at night. The lack of available options during overnight shifts means fewer healthy food alternatives. To exacerbate matters, emergency physicians are constantly busy, with limited or no break time — which incentivizes snacking on food that is nutritionally sparse. We explore how to combat these poor dietary habits many shift workers are predisposed to.

Establishing Eating Habits

Residents often feel guilty for taking time during a shift to eat. This leads to increased hunger and possibly decreased performance. Enforcing dedicated meal times can increase productivity during the shift and improve long-term wellness.

Preparing your meals in bulk on off-days before a string of consecutive shifts is time-efficient and means you would not have to cook every night. Most cooked food, particularly meat and vegetables, can be stored up to 4 days in the refrigerator without risk of contamination. Food stored in the freezer can last several months.

An alternative is subscribing to a meal-delivery service. Local and national companies offer a range of options. Meals are usually delivered cooked and prepared and only require re-heating, ideal for residents on busy schedules.

MEAL KIT / DELIVERY SERVICES

MEAL KIT SERVICES

- Blue Apron
- Hello Fresh
- Plated

PREPARED DELIVERED MEALS

- Freshly
- Fresh N Lean

The authors have no affiliation, sponsorship, or any partnerships with any of the recommended materials.

Hospital Cafeteria

Most hospital cafeterias offer healthy options as well as an abundance of nutritionally suboptimal options (“comfort food” for patients’ family members in times of stress). Avoid the quick, less healthy options (eg, pizza, fries, etc.) in favor of more nutritionally dense alternatives. Many may find it to be beneficial to purchase food before work and store it in the physician lounge refrigerator for mid-shift consumption.

Food-Based Beverages and Meal Replacements

Alternatives to sitting down and eating a full meal include meal replacement shakes and beverages (eg, Soylent www.soylent.com, Ample www.amplemeal.com). Many of these products can vary significantly in nutrition; carefully read the nutritional profile so you obtain the adequate amount of micro- and macronutrients each day. This is a good option for particularly busy shifts when you do not have time to sit for a full meal.

Nutrition

The field of nutrition science is inherently complex and extremely difficult to study; randomized-control trials are difficult to conduct because of the prevalence of many confounders. Most studies are epidemiological and expert dietary recommendations seem to change year to year. Depending on your needs and goals, current body weight/composition, and general activity level, your ideal total caloric intake and macronutrient (carbohydrate/fat/protein) ratios may vary widely from another individual.

The AHA, CDC, and USDA recommend diets high in fruits and vegetables and low in fat, especially trans-fat and saturated fats.[5] However, this conventional evidence has been challenged by recent epidemiological studies showing low carbohydrate-high fat diets may actually contribute to more weight loss and a decrease in metabolic syndrome.[6,7] The well-regarded Mediterranean diet is high in monounsaturated fats (eg, olive oil, legumes) and has been suggested to lower cardiovascular events and mortality.[8,9]

Despite these differences among various recommendations, there is some consensus: the total number of calories matter, but so do the type of calories.[10] Macronutrient ratios play a strong role, as do the attributes of each macronutrient. Refined, processed, and high glycemic index carbs are harmful because they contribute to insulin resistance. Trans-fats are deleterious because they can lead to elevated cholesterol and triglyceride levels. The majority of experts recommend eating a diet consisting of complex, low glycemic index carbohydrates and non-trans fats.

MACRONUTRIENTS	Preferred	Suboptimal
Carbohydrates	• Complex • High fiber (whole wheat, brown rice) • Low glycemic index (vegetables, most fruits)	• Refined, processed (potato chips, white bread, pasta) • High glycemic index (juice, soda, candy)
Fats	• Monounsaturated fats (nuts, olive oil) • Omega-3 polyunsaturated fats (fish, chia seeds, hemp-based products)	• Trans fat (look for “partially hydrogenated oil” in ingredients; found in many snack products) • Saturated fat (controversial)
Proteins	N/A	N/A

EXERCISE

If there is one “drug” that can be deemed a miracle drug, backed by extensive research for its multitude of health benefits, it is exercise. However, keeping up with a consistent regimen is particularly challenging for busy EM residents with variable schedules from week to week. The most obvious and well-known benefit of exercise is its effect on physical fitness, but its value surpasses that. Here, we discuss the importance of physical activity for body, brain, and sanity.

Benefits of Exercise

It has been well-documented that consistent aerobic exercise is associated with reduction in mortality from heart disease, cancer, and all-cause mortality.[11,12] That in itself should be enough reason to exercise regularly during residency.

However, there is also a large body of evidence to support aerobic activity’s benefits on both short-term and long-term cognition.[13-16] Consistent cardiovascular activity can increase your focus during work and can potentially improve your performance. If possible, go for a jog, cycle, or swim before your shift as you may be more exhausted after work. There is no evidence of any cognitive benefit from anaerobic exercise (eg, lifting weights).

Epidemiologic studies suggest that aerobic exercise may also reduce anxiety and rates of depression.[17] Because physicians have high rates of these mood disorders, those who conduct steady physical activity may find enormous benefits. Those who exercise regularly also report enhanced mood and greater overall happiness.[18] This can especially helpful during periods of burnout.

Create an Exercise Plan and Stick to It

The first step in designing an exercise plan is reflecting on your goals. Your objectives may be to gain or lose weight, increase muscle mass, decrease fat composition, prevent the onset of metabolic syndrome, improve cognitive performance, or combat mental illnesses.

A strict exercise regimen is especially difficult for shift workers as working hours vary from week to week. Therefore, it is critical to plan your workouts in advance so you adhere to a schedule. Here are some tips to stick with your exercise plan throughout residency:

- Sign up for a workout class on your weekly protected day to better adhere to attendance.
- Schedule your workout sessions in your calendar for the entire week at the beginning of the week, with exact times.
- Pair with a co-resident on a similar schedule each month to exercise together.
- Find a gym that is open late so you do not skip workouts during a series of overnight shifts.
- Consider incorporating exercise in your commute to work by walking or biking if feasible.

Exercise on Shift

No time to work out during residency? Well, there is evidence showing decreased fatigue, increased vigor, and improved cognitive function just by taking 5-minute walks intermittently throughout the day.[19] Here are some tips to sneak in some physical activity on shift:

- Use the stairs instead of the elevator.
- Take frequent brisk walks between prolonged bouts of sitting and documentation.
- Fidget at your workstation to burn more calories and increase blood circulation in the extremities.[20]
- Download the “7 Minute Workout” app.

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CHAPTER 6

Staying Safe on the Job

Christie Lech, MD; Jayram Pai, MD

Introduction

Interpersonal Conflict

Types of Conflict Modes and When to Use Them
Conflict with Consultants
Conflict with Patients and Families

Workplace Violence

Recognition: What is Workplace Violence?
How Prevalent is WPV?
Workplace Discrimination
Risk Assessment
Intervention: De-escalation and Other Techniques
Aftermath: Reporting, Quality Assurance, and Coping

INTRODUCTION

As emergency physicians, our daily job inherently involves interacting with a wide variety of people: patients, their families, myriad consultants, and our own department staff. The high acuity and stressful nature of our job is a breeding ground for all types of disagreements, which can potentially escalate into violence. Learning to recognize, appropriately manage, and stay safe in the face of conflict with others is a key skill in effectively practicing emergency medicine.

INTERPERSONAL CONFLICT

Although maintaining a patient-centered approach with consultants and developing rapport with patients is important, emergency physicians will inevitably run into conflict with both of these groups. While there is no "correct" way to manage these problems, we can be prepared to deal with any obstacle appropriately as long as we understand how to use the different tools at our disposal.

Types of Conflict Modes and When to Use Them

In conflict situations, our behavior can be mapped along two dimensions: assertiveness and cooperativeness. Assertiveness describes the extent to which we try to satisfy our own concerns, whereas cooperativeness describes the extent to which we try to appease others' concerns. These two dimensions can then be used to define 5 different ways of handling a conflict situation. The Thomas-Kilmann Conflict Mode Instrument (TKI) is a self-administered questionnaire that assesses your tendency to use one conflict mode over another. (Find more at http://www.kilmanndiagnostics.com/catalog/thomas-kilmann-instrument-one-assessment-person.) The 5 conflict modes are summarized directly from the work of Kenneth W. Thomas and Ralph H. Kilmann.[1]

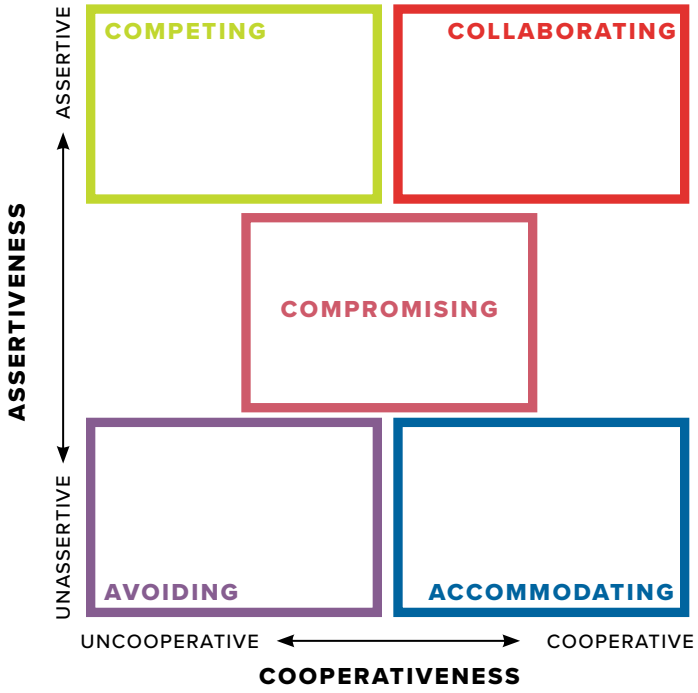

IMAGE CREDIT: HTTPS://WWW.OPP.COM/EN/TOOLS/TKI

It is important to understand that one type of conflict mode is not inherently "better" than another. Rather, think of each conflict mode as being more or less appropriate for a particular situation. By understanding each of the different conflict modes as well as your own tendencies, you can leverage each of them in the most appropriate situation to achieve the best possible outcome for all parties involved.

Avoiding: Unassertive and Uncooperative

Avoiding essentially involves *not* addressing the key issue at hand. It can take the form of sidestepping an issue, holding off on performing a duty that can be delayed, or ignoring a problem altogether. However, avoidance can be a useful tool in certain situations. For example, trying to repetitively prove a point with a family member who is overtly hostile or dangerous may not be the best approach in that moment. It may be more appropriate in this case to calmly inform the family member that you will step away until a more appropriate discussion can be held.

Accommodating: Unassertive and Cooperative

This conflict mode involves an element of self-sacrifice and occasionally self-neglect. It can often result in "giving more than taking." Accommodating in the ED commonly manifests as giving in to an attending physician's requests, even if you don't agree with the management plan. Similarly, this can be seen in some interactions with consultants. On the other hand, accommodating can also manifest as selfless generosity to strangers, such as staying late after a shift to ensure that a patient is safely reunited with his or her family.

Competing: Assertiveness and Uncooperative

Competing involves asserting your own beliefs regardless of others' needs. It is a power-oriented (or "bully") mode of approaching conflict. Strongly advocating for a consultant to come to the ED immediately to evaluate a patient you believe is critically ill or refusing to give opiates to a patient with an extensive history of drug seeking behavior are appropriate instances of implementing a power-oriented conflict management mode.

Compromising: Intermediate Assertiveness and Cooperativeness

Compromising falls in the middle of the spectrum of both assertiveness and cooperativeness. When using a compromising conflict mode, your goal is to find a solution that partially satisfies both parties, which also means that neither party is fully satisfied with the result. Compromising might mean splitting the difference. For example, you want your consultant to come immediately to the ED from home, but your consultant wants to wait until morning; you split the difference and she arrives in 3 hours. Compromising can be useful, however, for seeking a quick middle-ground resolution to a problem.

Collaborating: Assertive and Cooperative

In contrast to compromising, collaborating involves finding a solution that is mutually beneficial to both parties. It can involve digging deep into issues in order to resolve underlying problems, understand each other's perspective, or find a creative solution. For example, an ideal time to collaborate would be in situations that involve shared decision-making. However, while collaboration may seem like the ideal way to handle conflict all the time, it is certainly not appropriate in all situations. For example, getting involved in an in-depth discussion about the pros and cons of continued epinephrine administration while a patient is in cardiac arrest is not appropriate.

Conflict with Consultants

We deal with consultants on every shift. Many times these interactions are straightforward and our patients are seen by specialty services in a timely manner. But sometimes we don't agree with the physicians on the other end of the phone line. These disagreements range from refusal to evaluate patients ("inappropriate consults") to management or disposition recommendations that — to us — don't appear to be in our patients' best interest. Managing conflicts like this can be frustrating and time-consuming. A helpful construct for framing these conflicts is the DESC Script, described in Chapter 3: Rapid Team-Building.

At the end of the day, however, you are charged with the responsibility of caring for your patients. Whenever possible, maintain a patient-centered view.[2] It is often far more constructive to frame disagreements with consultants in terms of benefit to the patient rather than benefit to yourself. Consider the 5 conflict modes at your disposal and select the mode that would achieve the best possible outcome for your patients at the moment a conflict arises.

Conflict with Patients and Families

First impressions last forever. Developing early rapport with patients and their families is important and will positively affect the health of your patient as well as your own work satisfaction.[3,4] One of the most effective things you can do to prevent conflict is to set expectations.[5] Approximate timelines for testing and imaging, pain management, and establishment of follow-up are factors that, if explained properly, are avoidable sources of conflict.[6,7] Take a few extra minutes in the patient encounter and you can create more fulfilling experiences for your patient, his/her family, and yourself.

WORKPLACE VIOLENCE

What is Workplace Violence?

Workplace violence (WPV) is defined by the World Health Organization (WHO) as "incidents when staff are abused, threatened, or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, well-being, or health." Workplace violence can be divided into the categories of physical violence and psychological violence. Other terms that are often used interchangeably with WPV include assault or attack, abuse, bullying, harassment (including sexual and racial harassment), and threats.[8]

How Prevalent is Workplace Violence?

The ED is well-cited in the literature as the health care setting with the highest incidence of workplace violence.[9] Prior studies have examined the prevalence of WPV and subtypes of WPV in the ED in a multitude of countries and with different types of staff, including nurses, EMS workers, and physicians. The results are concerning. One study that involved physicians, nurses, and medical technicians found that 96% of staff had experienced an incidence of violence while at work in the ED.[10] Other studies found lower rates of 78% (resident physicians, number who had experienced at least one episode of WPV), and 37% (resident physicians, number who had experienced an episode of physical violence committed by patients or visitors).[11]

Workplace Discrimination

A discussion of WPV is not complete without acknowledging the presence of discrimination in the workplace. The specific focus here will be on discrimination on the part of patients and visitors against ED staff. This is a complex topic and a part of a greater discussion outside the scope of this chapter that should be continued in our community. WPV is linked with, and can lead to, discrimination. Discrimination is defined by the WHO as, "any distinction, exclusion, or preference which has the effect of nullifying or impairing equality of opportunity or treatment … such as those made on the basis of race, color, sex, religion, political opinion, national extraction, or social origin."[8] When workplace discrimination occurs, the first step is to identify the behavior or attitude as discrimination. This identification is important in order to ensure that staff understand these actions are inappropriate and harmful. The next step is to provide staff with resources for the reporting of the incident and support for those managing the aftermath of discrimination. In addition to having the appropriate mechanisms in place to manage these incidents after they occur, the provision of a clear and deliberate statement of support for staff and a no-tolerance policy of discrimination is key.

Risk Assessment

Environmental

One common environmental condition that puts a health care setting at risk for WPV is one that is understaffed and has insufficient resources. Having prior episodes of WPV or crime is another environmental risk factor for WPV. In addition, working alone or in isolation in a setting can place a health care worker at risk.[8]

Patient-Based Characteristics

Prior studies have described patient factors that contribute a propensity toward violence. The accompanying table, adapted from Schnapp et al, 2016,[11] displays patient factors that can foreshadow WPV, as well as signs of a potential impending incident.

Patient Factors that Increase Risk of WPV
History of illicit drug or alcohol use/misuse
History of psychiatric disease
History of prior episodes of violence
Access to weapons/objects that can be used as weapons

In 2005 Luck and colleagues developed a framework nurses could use to identify patients at risk for violence.[12] The framework was described by the acronym STAMP:

- **Starting and eye contact**
- **Tone and volume of voice**
- **Anxiety**
- **Mumbling**
- **Pacing**

Following are signs of a potential impending incident, adapted from the WHO Framework Guidelines for Addressing Workplace Violence in the Health Sector.[8]

Signs of Possible Escalation of Dangerous Behavior
Alterations in patient's tone of voice, tensing of muscles, sweating, pupillary dilation
Aggressive/threatening postures and behavior
Repeated displays of frustration and irritation

Intervention: De-escalation and Other Techniques

When an episode of WPV is judged to be impending or is actually happening, staff must be provided with the appropriate tools to prevent further deterioration of the situation. Prior studies have found that 14-16% of EM residents reported training in violence prevention or de-escalation techniques.[11]

If you do find yourself in a violent or threatening situation, you can follow the non-coercive de-escalation techniques described below to potentially diffuse the situation. These techniques require you be aware of to your tone of voice, word choice, and body language. When you engage a patient in conversation, you should introduce yourself, address the patient directly, and state that you want to assist them in regaining control of their behavior.

The main principle of non-coercive de-escalation is to create a "verbal loop" in which the clinician listens to the patient's concerns, responds in a way that either agrees or validates the patient's response, and then states what they want the patient to do.[13] Only one person should engage the patient verbally in a situation in order to prevent confusion and further escalation of threatening or violent behavior.[13] It is important to avoid the use of defensive, provocative, or contradictory language.[14] It may take multiple iterations of the verbal loop to successfully calm the patient.[13] If the situation escalates further, you should maintain non-threatening eye contact, keep hands open and visible, and use nodding to signify understanding when the patient is speaking. With regard to your body language, respect the patient's personal space (2 arms' length distance away from the patient), avoid physical contact with the patient, and when approaching the patient, do so at an angle or from the side. [14]

If the patient loses control of his/her behavior, you must proactively protect yourself, other staff, and other patients in the department. Ensure that you and any other involved staff are near an exit. Clear the space of patients, and enlist the assistance of your hospital's security staff. Prior to this you may try to use *limit setting,* which uses "a command form to express the desired behavior, and provides logical and enforceable consequences for noncompliance."[14] One example of this is, "Please return to your stretcher and stop yelling. I don't want to involve security, but I may have to if you can't control yourself."

10 Domains of De-Escalation[13]
Respect personal space
Do not be provocative
Establish verbal contact
Be concise
Identify wants and feelings
Listen closely to what the patient is saying
Agree or agree to disagree
Lay down the law and set clear limits
Offer choices and optimism
Debrief with the patient and staff

Aftermath: Reporting, Quality Assurance, and Coping

The impact of patient-related WPV can affect an individual physically and emotionally, as well as have an impact on their career and education. It is imperative that after an episode of WPV the appropriate steps are taking to report the incident and protect and support the affected individual.

Any incident of physical or psychological violence should be reported and recorded. Trainees should report to the supervising attending physician, and then to the appropriate institutional reporting system.

Debriefing after the incident with all staff involved is necessary in order to provide staff with time to reflect on and process the incident. The debriefing will allow the safe space for providers to process their reactions to a case. After the impact realization of the event, the involved providers will likely experience a mix of emotions, and may experience recurrent thoughts about the incident and repeated re-evaluate the situation in their minds. Debriefing may occur at multiple time periods (hot, warm, and cold debriefs) depending on the situation. Staff support networks and institutional counseling services should be made available to all staff.

On both the departmental, institutional, national, and international level, episodes of WPV should be tracked. More locally, individual institutions or departments should periodically review reports of WPV and provide plans for improvement of staff and patient safety.

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CHAPTER 7

Physician Impairment

Randy Sorge, MD

What is Physician Impairment?

What is NOT Physician Impairment?

Brief Case Studies

Why is Physician Impairment an Important Topic in Emergency Medicine?

Which Emergency Physicians are Most at Risk?

How Do I Recognize if Someone is Having a Problem?

What Should I Do If I think a Colleague May Be Impaired?

What is a Physician Health Program (PHP)?

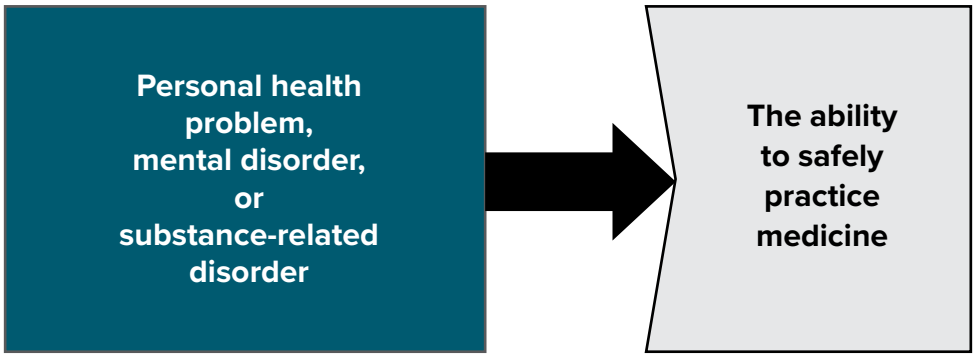
Concerns about Reporting an Impaired Colleague

What Should I Do If Someone Reports Me to the PHP?

The Good News

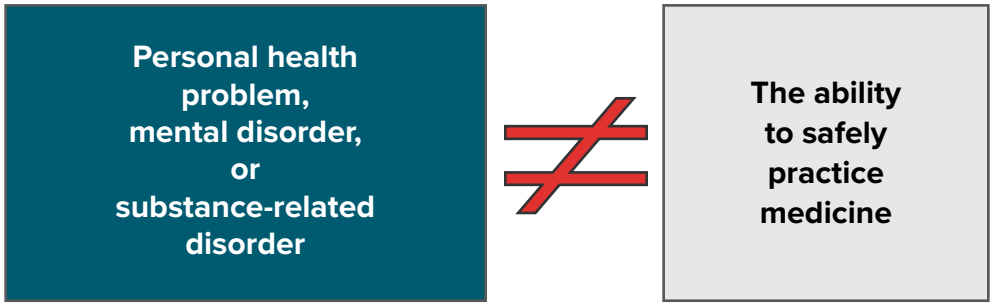
WHAT IS PHYSICIAN IMPAIRMENT?

Physician impairment occurs when a personal health problem, mental disorder, or substance-related disorder affects a physician's ability to safely practice medicine.[1]



WHAT IS *NOT* PHYSICIAN IMPAIRMENT?

The existence of a personal health problem, mental disorder, or substance-related disorder *alone* is **not** synonymous with physician impairment.[2] If these conditions do not affect an individual's ability to care for patients then, then they are not impairments.



DEFINITIONS OF PHYSICIAN IMPAIRMENT	
Federation of State Medical Boards[1]	"Impairment is the inability of a licensee to practice medicine with reasonable skill and safety as the result of illness, mental disorder, or substance-related disorder." "A physician may also illicitly use controlled prescription medications without impairment, but because this behavior is illegal and considered unethical, it is inappropriate under any circumstance."
ACEP Clinical Policy[2]	"The existence of a health problem in a physician is *not* synonymous with occupational impairment. Because of their training and dedication, most physicians with appropriately managed personal health problems and other stressors are able to function safely and effectively in the workplace." "Physician impairment, on the other hand, exists when a physician becomes unable to practice medicine with reasonable skill and safety because of personal health problems or other stressors. In most physicians, impairment is a self-limited state that is amenable to intervention, assistance, recovery, and/or resolution."

BRIEF CASE STUDIES

1. *John is a senior resident who drinks heavily outside the workplace, particularly after stressful shifts. However, he does not come to shift intoxicated, has never shown up hung-over or tardy, and still provides an excellent standard of care for his patients.*
   Although drinking excessively is an unhealthy coping mechanism and can lead to several professional and personal problems, it does not *in and of itself* render a physician impaired, unless it affects his/her ability to care for patients.
2. Sarah is an attending who was diagnosed with anxiety and depression. She has successfully managed her condition with a combination of therapy and antidepressants. Although she sometimes feels stressed at work or sad after a particularly difficult case, she is able to fulfill her duties without impacting patient care.
   The existence of the mental disorder does not automatically render a physician impaired.
3. Michael is a junior resident who fractured his wrist after a fall. He was prescribed oxycodone after his surgery, and although his wrist is now completely healed he continues to take oxycodone because it helps him feel more relaxed. He never takes it before or during shift, and he is still able to provide excellent patient care.
   Using controlled prescription medications *even in the absence* of impairment is inappropriate for physicians under any circumstances and must be reported because it is illegal and considered unethical.

WHY IS PHYSICIAN IMPAIRMENT AN IMPORTANT TOPIC IN EMERGENCY MEDICINE?

- Emergency medicine is the **second most** commonly affected specialty by physician impairment.[3]
- A combination of tremendous emotional stress, long work hours, regular exposure to trauma, and access to drugs of abuse makes emergency physicians at particularly high risk.[4]

WHICH EMERGENCY PHYSICIANS ARE MOST AT RISK?

- Like the rest of the population, those with a family history of substance abuse disorder or mood disorder are at increased risk.[4]
- The biggest physician-specific risk factor is those who self-treat with prescription medications.[5,6]
- Residents are at particularly high risk. Resident physicians are faced with additional stressors not experienced by physicians who have completed their training which include long work hours, heavy patient loads, and the lack of emotional support.[4]
- Family/marital problems are often the initial trigger.[7]

HOW DO I RECOGNIZE IF SOMEONE IS HAVING A PROBLEM?

This is often very difficult because physicians excel at concealing their symptoms. However, **any acute change in behavior is concerning**.[8] This may include:

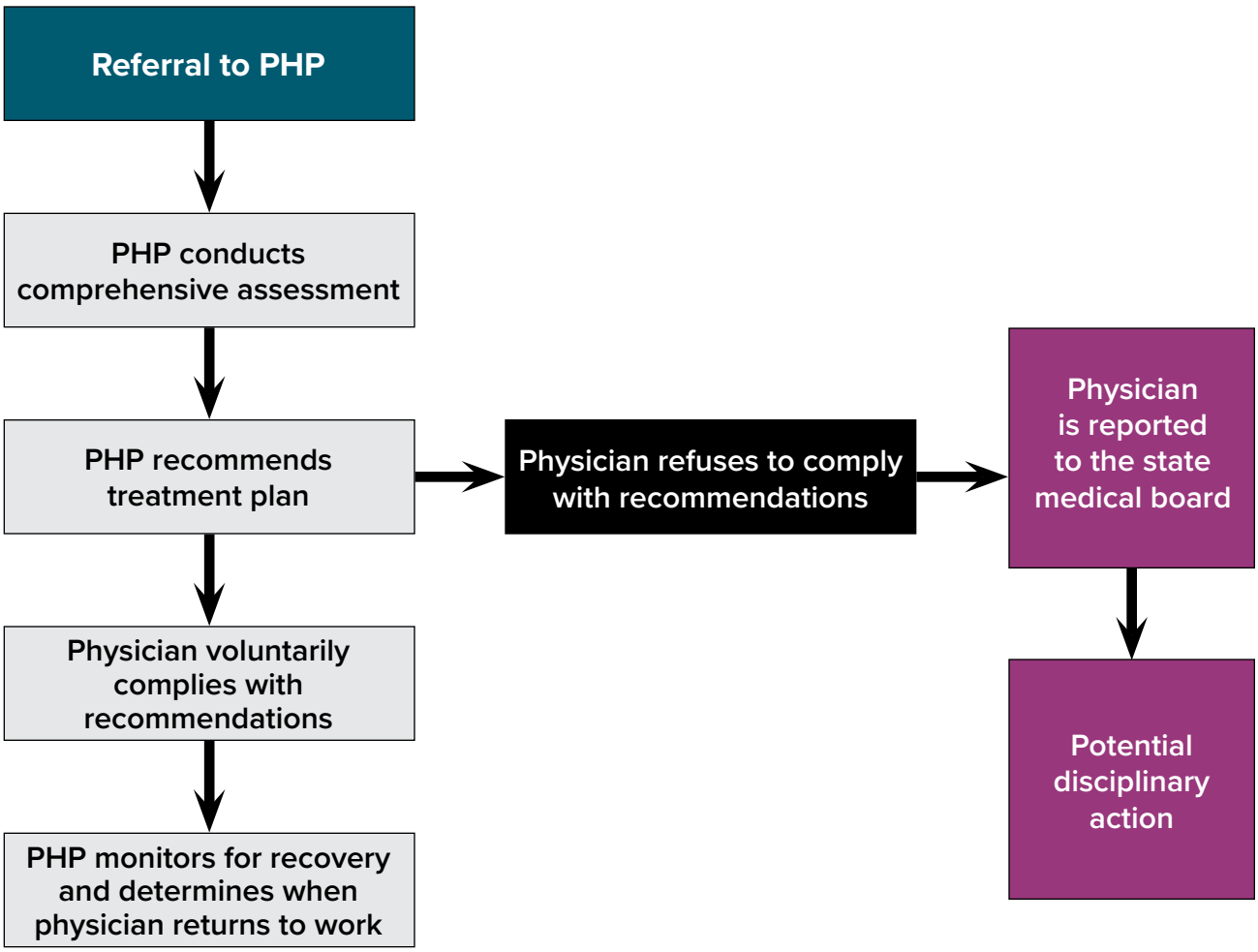
- Unexplained lateness or absence
- Absence from professional functions
- Carelessness medical decisions, increased errors
- Sudden isolation, not responding to pages or calls
- Citing unexplained “personal problems” to mask deficits in concentration[9]

WHAT SHOULD I DO IF I THINK A COLLEAGUE MAY BE IMPAIRED?

- You have an **obligation to immediately report any good faith suspicion** or concern about an impaired, incompetent, or unethical physician.[10]
- Although laws vary state-to-state, almost all guidelines include immediately notifying a supervisor or physician health program.
- You can make an anonymous report.
- If the colleague is also a close personal friend, you may be tempted to confront them individually. However, **an intervention is best done by an experienced team, not a well-meaning colleague.**[11]
- Privately confronting your colleague often results in denial and may result in self-harm.[4]

WHAT IS A PHYSICIAN HEALTH PROGRAM (PHP)?

- Each state has its own PHP that is designed specifically to help impaired physicians recover. The Federation of State Physician Health Programs maintains a **list of PHPs by state**.[12]
- The role of the PHP is to **serve as an advocate for the physician**, make recommendations for treatment, and monitor recovery. **They have no role in disciplinary or punitive actions.**
- The PHP will conduct a comprehensive assessment, not to diagnose the physician, but solely to gather information regarding the case. Their assessment includes a team composed of human resources, risk management and representatives from the physician's department.[1]
- After the assessment is complete, the PHP may make recommendations for treatment if deemed necessary.[1]
- The physician can voluntarily follow these recommendations, keeping their identity anonymous to the public and the state medical board.[1]
- However, if treatment is recommended and the physician refuses, the PHP is obligated to reported the physician to the state medical board, which can result in serious consequences including but not limited to loss of medical license.[1]



CONCERNS ABOUT REPORTING AN IMPAIRED COLLEAGUE

It is an extremely difficult and often emotionally burdensome to report a physician who is a close personal friend, mentor, supervisor or partner.[13] It is normal to feel conflicted when faced with the decision to report a colleague you suspect may be impaired.[14] You may feel like you are betraying their trust, you may want to avoid confrontation, or you may be worried about permanently damaging their career.

However, by failing to report an impaired physician and allowing them to continue to practice you place the patients at risk of harm. Additionally, a failure to report may result in professional or legal ramifications. Remember that in making an anonymous referral you are advocating for the well-being of the physician as well as their patients. Anonymous referrals allow you to report concerning behavior without fear of retaliation.

In general, an early referral is associated with improved outcomes for impaired physicians. It results in less serious mistakes, shorter treatment time, increased chance of permanent recovery, and a quicker return to work.[15]

WHAT SHOULD I DO IF SOMEONE HAS REPORTED ME TO THE PHP?

Work with the PHP! They are there to help ensure you receive proper treatment and make a full recovery. Remember that they are not a disciplinary entity and if you agree to voluntary treatment, your identity may remain anonymous.

THE GOOD NEWS

- Several states grant "immunity" that protect physicians who voluntarily seek treatment which means their identities are protected and not reported to state licensing boards.[9]
- Almost all physicians make a full recovery.[9]
- On average, 75-90% of physicians completing treatment and signing contracts with their state programs achieve long-term abstinence and return to work.[16]

RESOURCES	
National Institute of Drug Abuse	**https://www.drugabuse.gov**
National Institute on Alcohol Abuse and Alcoholism	**https://www.niaaa.nih.gov**
American Society of Addiction Medicine	**https://www.asam.org**
American Academy of Addiction Psychiatry	**https://www.aaap.org**
Alcoholics Anonymous	**http://www.aa.org**
International Doctors in Alcoholics Anonymous	**https://www.idaa.org**
Association for Medical Education and Research in Substance Abuse	**https://amersa.org**
Substance Abuse and Mental Health Services Administration	**https://www.samhsa.gov**
Federation of State Medical Boards	**http://www.fsmb.org**
Federation of State Physician Health Programs	**https://www.fsphp.org**

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CHAPTER 8

Second Victim Syndrome

Ramin Tabatabai, MD FACEP; Alicia Pilarski, DO, FACEP

INTRODUCTION

Patient safety events and/or medical errors are inevitable during the course of a medical career. Medical errors are a significant source of morbidity and mortality and have been cited by some sources as the third leading cause of death in the United States.[1] Whether the event or error is related to a system failure or a human error, part of the physician experience involves making mistakes. This simple and critical concept is rarely discussed during medical school and residency training. Patients may perceive their doctors as infallible experts. Physicians similarly tend to expect the same unrealistic levels of perfection from themselves. This false sense of perfection collides with the realities of being human and working within complex health care systems. As described in the book "To Err is Human" in 2000, there are not bad people working in health care, rather good people working in bad systems that need to be made safer.[2] But how do medical errors and adverse events affect these providers, and how can we effectively support our providers following an error or adverse event?

"Virtually every practitioner knows the sickening realization of making a bad mistake.
You feel singled out and exposed.....You agonize about what to do.....
Later, the event replays itself over and over in your mind."

WHAT IS SECOND VICTIM SYNDROME (SVS)?

In 2000, Albert Wu coined the term, "second victim."[2] In any patient safety event/medical error, the first victim is the patient. The second victim is the provider (a resident, attending physician, advanced practice provider, nurse, paramedic, etc.) who is involved in a patient safety event/medical error who subsequently becomes traumatized by the event. Examples of patient safety events/medical errors include situations such as incorrect medication dosages, missed diagnosis, incorrect medical management, accidental harm during a procedure, among several others. These types of cases are unforgettable and can leave lasting emotional scars on providers.

WHAT ARE THE EFFECTS OF SVS ON PROVIDERS?

Several studies have shown that second victims can experience significant emotional distress, including but not limited to anxiety, depression, guilt, sleep disturbances, loss of confidence in their practice, and decreased job satisfaction.[3,4]

These emotional effects, depending on the nature of the case and severity of injury to the patient, can last for weeks or up to several years.[4] These intrusive feelings can affect a provider's perception of their own professional reputation, lead to a change in clinical practice, contribute to fear of losing one's job, and even contemplation of leaving one's career. Isolation, depression, and suicidality have all been associated with second victim events.[3,4,5] In addition, studies have shown that providers who are identified as second victims have a higher risk of being involved in a subsequent patient safety event/medical error.[5] This is secondary to the fact that second victims are often preoccupied by their emotions and have a harder time focusing on decision-making while distressed.

In medicine, determining the root cause of errors is important to help prevent the occurrence of future errors. In an ideal setting, errors would be avoided altogether. However, we know through our collective experiences that this is rarely the case. From a systems standpoint, patient safety measures are developed through protocols, pathways, and other interventions often in response to an adverse event. As our system has been hard at work focusing on patient safety and quality, our medical culture has been lacking in its support of the providers involved in these cases. Another challenging aspect of these events involves the disclosure and reporting of an error. In one study, only about one-third of trainees receive formal training in medical error disclosure, though over 90% expressed interest in receiving disclosure training.[7] Students, trainees, or attending physicians who lack disclosure training or who function in an unsupportive and punitive clinical environment will be less likely to report medical errors, which ultimately leads to less effective prevention of future errors and patient harm reduction.

WHY ARE RESIDENTS AT RISK?

Residents are a particularly high-risk population for Second Victim Syndrome. As a group, residents are in the learning phase and are expected to make mistakes during their training given their relative levels of inexperience combined with high levels of clinical accountability. In addition, residency can be challenging given the high demands of clinical workload, sleep/fatigue irregularities, potential loss of self-care, and possible strain on relationships who contribute to a much needed

support network. Residents may experience considerably greater negative consequences following an adverse event if they are sleep-deprived, without a support system, and lacking healthy coping strategies. According to one study, the prevalence of fourth-year students involved in a medical error was 78% — compared to 98% of residents.[7] A survey of more than 3100 physicians from the U.S. and Canada found that 81% of those who had been involved in a clinical event (serious error, minor error, or near miss) experienced some degree of emotional distress.[8] Second Victim Syndrome is well described and highly prevalent in our clinical environment.

In the most devastating of cases, second victims can harbor debilitating levels of distress that ultimately could lead to suicide. Numerous reports in the literature discuss providers (nurses, residents, attending physicians) who died by suicide following a significant event that led to patient harm.

HOW DO WE IDENTIFY SECOND VICTIMS?

Second victims may display similar emotions and behaviors to those who are experiencing burnout. Providers may experience emotional lability, isolation, a decreased ability to focus, and may withdraw themselves from their support networks.

Through their research, Scott and colleagues identified a common second victim pathway of coping toward recovery.[10] They found that although the participants in their study had unique coping styles, they seemed to share a fairly predictable recovery pattern: (1) chaos and accident response; (2) intrusive reflections, (3) restoring personal integrity, (4) enduring the inquisition, (5) obtaining emotional first aid and (6) moving on.

STAGES OF SECOND VICTIM SYNDROME[10]
Stage 1. Chaos and accident response
Stage 2. Intrusive reflections
Stage 3. Restoring personal integrity
Stage 4. Enduring the inquisition
Stage 5. Obtaining emotional first-aid
Stage 6. Moving on

During the first stage of "chaos and accident response," the provider will experience turmoil, distraction, and will often self-chastise as a result of the event. During this stage, the provider may ask themselves, "*How and why did this happen?*" The second stage of "intrusive reflections" is defined by "a period of haunted re-enactments, often with feelings of internal inadequacy and periods of self-isolation."[10] Providers in the second stage may begin asking, "*How did I miss this and could this have been prevented?*" During the critical third stage of "restoring personal integrity," the second victim will question their reputation and acceptance within the workplace. Questions such as "*What will others think?*", "*Will I ever be trusted again?*", and "*How much trouble am I in?*" are pervasive during this stage. It is during this stage that providers will begin to seek support from a trusted individual such as a colleague, supervisor, family member or friend. Without a positive supportive environment during this stage, providers may find extreme difficulty moving forward from the event.[10] The first three stages may occur in succession or simultaneously.

Stage four of the recovery process is known as "enduring the inquisition" when the second victim begins to focus on the potential repercussions affecting job security, licensure, and future litigation. During this stage, it is critical that the provider understands what to expect and how to obtain support through these stressful encounters. Stage five involves "obtaining emotional first aid." Peer supporters, patient safety, and risk management all play a crucial role in ensuring the provider has a safe space to recover from the event. In the final stage, "moving on," the provider will either thrive, survive, or drop out. If adequate support and guidance are provided throughout this process, the provider will ideally continue to thrive through professional and personal growth following the event.

HOW DO WE PROVIDE SUPPORT TO SECOND VICTIMS?

Studies have shown that the most effective management of second victims includes the support of providers by peer colleagues from within their own specialty.[11] While support from friends, significant others and supervisors are important, most providers prefer support from a trusted colleague, which has prompted several institutions to implement robust second victim response teams.[11,12] Receiving support from a colleague from within one's own specialty offers a sense of shared understanding about the complex nature of patient care. It also normalizes the situation for the affected provider.

Peer support teams that are trained to provide emotional first aid are also incredibly beneficial.[11,12] Creating a strong support network within medical school, residency, and future clinical practice can help to lessen the effects of Second Victim Syndrome. Normalizing mistakes and encouraging the supportive discussion about adverse patient events and medical errors has also been shown to improve the effects of SVS. Morbidity and mortality (M&M) or Patient Safety conferences following events during a resident's training need to be thoughtful, supportive, and focused on improving patient safety and encouraging a "just culture" rather than pointing blame at the provider.

One organizational model developed at the University of Missouri to address second victimization involves a tiered support system.[13] At the first tier, local unit or departmental clinical peers would be expected to provide a culture of support rather than shame and blame on a daily basis. The second tier of support would come from peer supporters, patient safety officers, and risk managers who are trained to provide one-on-one crisis intervention, mentorship, and group debriefings after an adverse event. Finally, the third tier involves an expedited referral network comprising clinical psychologists, employee assistant programs, chaplains, and social workers who could mobilize to provide further aid to the affected provider.

Culture change, one could argue, is ultimately more important than any single intervention. The traditional culture of shame and blame aimed at providers who have experienced a second victim phenomenon should be rapidly replaced by a movement toward a "just culture." A just culture balances the need for an open and honest reporting environment with the end of a quality learning environment. Rather than pointing blame at an individual provider, a just culture encourages individuals to disclose medical errors in a supportive environment to help promote rather than impede a culture of safety. A framework of just culture helps to balance the accountability for both the individuals and the organization in order to promote patient safety by improving the workplace system.[14] If individuals continuously fear retribution, they will be unlikely to disclose errors that could provide valuable insight into valuable system re-designs. Conversely, in a supportive environment, a provider will feel more inclined to discuss an adverse event in the interest of organizational patient safety.

CONCLUSION

Although several second victim programs do currently exist, it is not necessary to have this infrastructure to promote a healthy and supportive work environment at one's local institution. Every individual can contribute by providing peer support to a colleague who has experienced a second victim event. By being an empathetic listener, removing judgment and blame, and sharing a personal experience of our own errors, we can all serve each other well in our medical careers and community. As providers in medicine, we have difficult jobs, we will make errors, and we will be involved in cases with adverse outcomes. It is important to always remember we are not alone and these mistakes do not define us as providers. With the proper second victim support, we can ultimately create a safer space for ourselves and for our patients.

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Appendix

Quick Resources

CHAPTER 1. MINDFULNESS AND THE EMERGENCY MEDICINE MIND

Recommended Apps

- Headspace
- Calm
- 10% Happier
- Insight Timer

Recommended Books

- The Mindful Geek: Secular Meditation for Smart Skeptics, by Michael W Taft
- Insight Meditation, by Joseph Goldstein
- Buddhism Without Beliefs, by Stephen Batchelor
- 10% Happier: How I Tamed the Voice in My Head, Reduced Stress Without Losing My Edge, and Found Self-Help that Actually Works — A True Story, by Dan Harris

Podcasts/Websites

All It Takes is 10 Mindful Minutes **TED Talk by Andy Puddicombe**
Free Guided Meditations from UCLA Mindful Awareness Research Center
EMCrit — Vipassana Meditation
The Overwhelmed Brain — a podcast on personal growth, with episodes on meditation and banishing negative thoughts
Mindfulness in Plain English

CHAPTER 5. TREAT YOUR BODY RIGHT

Meal Kit Services

Blue Apron
Hello Fresh
Plated

Prepared Delivered Meals

Freshly
Fresh N Lean

CHAPTER 7. PHYSICIAN IMPAIRMENT

National Institute of Drug Abuse
National Institute on Alcohol Abuse and Alcoholism
American Society of Addiction Medicine
American Academy of Addiction Psychiatry
Alcoholics Anonymous
International Doctors in Alcoholics Anonymous
Association for Medical Education and Research in Substance Abuse
Substance Abuse and Mental Health Services Administration
Federation of State Medical Boards
Federation of State Physician Health Programs

EDUCATIONAL RESOURCES

AMA Steps Forward Physician Well-Being Modules
ACGME Physician Wellness Education Resources
Med Ed Portal (resources for curricula and programs, including wellness)

SUICIDE PREVENTION AND POST-VENTION

SUICIDE PREVENTION HOTLINE
In a crisis call 1-800-273-8255 or
text "HOME" to 741-741

Suicide Prevention Hotline 1-800-273-8255
Take 5 to Save Lives
American Foundation for Suicide Prevention
After a Suicide: Toolkit for Physician Residency/Fellowship Programs

NATIONAL EMERGENCY MEDICINE WELLNESS ORGANIZATION RESOURCES

Emergency Medicine Residents' Association Wellness Resources and Articles
American College of Emergency Physicians Wellness Resources
Council of Emergency Medicine Residency Directors Physician Resilience Resources
American Association of Emergency Medicine Wellness Committee Resources
Academic Life in Emergency Medicine Wellness Think Tank

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