



The Beeson Beat

From Patient to Page: The Yale Writers' Workshop

Sheila Quinn

Since its inception in 2003, the Yale Writers' Workshop has empowered more than 100 physicians to scribble their raw observations onto paper and neatly seal them into perfection. The original Workshop was born from the joint visions of our own Dr. Asghar Rastegar, physician-writer Dr. Anna Reisman, and visiting author and physician Dr. Abraham Verghese (*Cutting for Stone*). The Workshop was created as a safe space for residents to reflect and write candidly and creatively while receiving editorial guidance. Most importantly, it permitted residents to necessarily reflect on the truly complex interactions between patient, self, and medicine.

Twelve applicants are selected each year from a pool of more than twenty across nearly every Yale residency. Residents submit a personal essay about a topic of their choosing. Over the intensive, two-day experience, writers receive constructive feedback from colleagues and current workshop leaders, Drs. Anna Reisman and Lisa Sanders. Themes are clarified, sentences restructured and stories rewritten. The second day, when participants return with revisions, is when the true literary magic happens. Brief writing exercises are interspersed throughout the day. For example, residents extract characters from each piece and write dialogue between them. By sunset on the second day, the most incredible cast of characters has come to life. They come off the pages and join the room, their presence nearly palpable.

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The Highly Reliable Team

Alexandra Norcott

As a resident, I strive to be simultaneously meticulous and efficient. I work hard to know every detail about my patients; but, as the census expands and the number of daily tasks increases, striking this balance becomes more challenging. Errors can and do happen.

So, what can be done?

Take a page from the car industry

Toyota rose to the top in quality using the principle of "jidoka," or "automation with a human touch." Red cords dangle above assembly line workers, and employees pull the cord if they notice any imperfection. This halts the entire production and prompts other workers to rush to the person, thank him/her, and help resolve the problem. The policy ultimately prevents the sale of potentially unsafe vehicles but also increases trust amongst employees, increases available resources, and drives prevention.

Errors and inefficiencies also happen in healthcare. Luckily, we work in teams where errors are often caught before they lead to bad outcomes. When a mistake is found, it can feel awful, and in the midst of the gloom we often forget to thank the person who caught it. A caught mistake is a WIN. If we routinely thank and help those who identify mistakes, our teams will grow stronger and patient care will continually improve.

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Buried Alive! A History of Premature Burial

Karl Langberg

“The boundaries which divide Life from Death are at best shadowy and vague. Who shall say where the one ends, and where the other begins? We know that there are diseases in which occur total cessations of all the apparent functions of vitality, and yet in which these cessations are merely suspensions, properly so called. . . . A certain period elapses, and some unseen mysterious principle again sets in motion the magic pinions and the wizard wheels.”

Edgar Allan Poe, *The Premature Burial*

Death is a diagnosis not given lightly, for if it is made prematurely, the patient may suffer what is among the most ghastly of demises: being buried alive. Accounts of premature burial date back to antiquity, but it was in 18th and 19th century Europe when this macabre death was particularly feared.

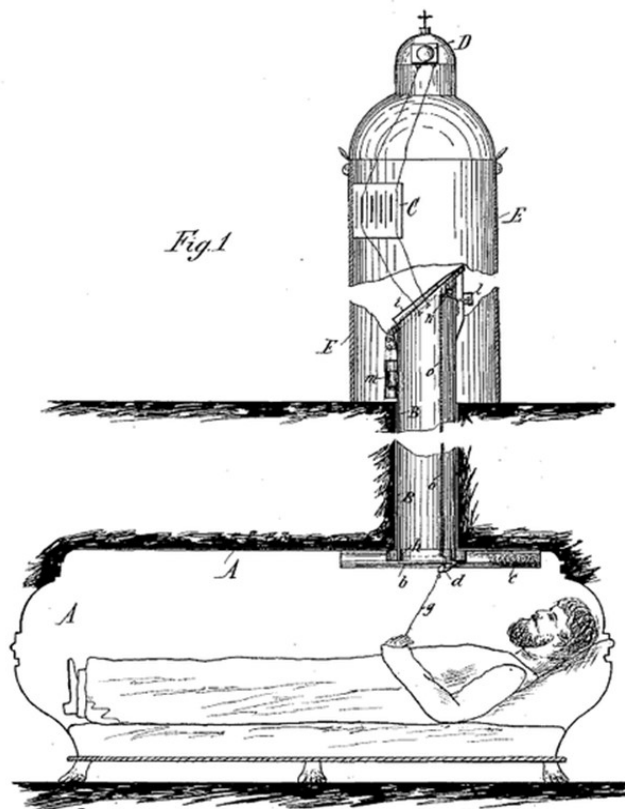
It was a period of transition for medicine, in which we moved from the preenlightenment period of miasmas and humors to a period marked by the application of the scientific method. It was well understood that the cessation of breathing and pulses was associated with death. Despite checking for pulsations and breath, there were frequent near misses when patients who seemed dead would then come alive. Diagnoses such as syncope, apoplexy, diabetic ketoacidosis, opiate overdose, epilepsy, hysterical stupor and near-drowning were all known mimickers of death. There were chilling reports of bodies found in their coffins months after being buried, curled into different positions with their hair pulled out, their fingers bloodied on the lids of coffins, their clothes torn.

These disturbing accounts led to a frenzy of innovations to help improve sensitivity and specificity for detection of death. Tests gentle, such as holding a chilled mirror to the patient’s nose and observing the warm breath’s condensation, to barbaric, like cutting fingers off to assess for bleeding, were widely utilized. Elaborate coffins were constructed with snorkels to provide air and bells to alert grave attendants of activity within. There were death observatories where a body could be watched for several days; often the body was kept out of the coffin until it began to putrefy, as only then could death be certain.

Technology allows physicians to make the diagnosis of death increasingly more confidently. The heart could be auscultated more easily after the invention of the stethoscope. Fluoroscopy could be used to see if the internal organs were functioning. Increasing attention was given to the brain and brain waves as a sign of life.

We should take pause before we feel so assured that modern

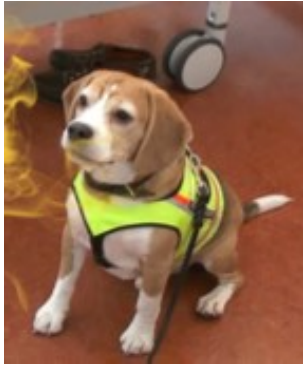
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Pet Scanning

Samantha Gelfand

You think your patient may have an infection. He has a fever and a mild white count. The exam is unremarkable. The chest X-ray is pristine. The urinalysis is so sterile Dr. Siner would let you sprinkle it over a central line. The patient then mentions that he has had some loose stools. Due to the strikingly common inability among humans to succinctly or vividly describe stool, he is unable to succinctly or vividly describe his stool.



“*C. diff*” Cliff

When you discuss it on rounds, one of your team members suggests *C.diff* as the culprit. The nurse speaks up. She is not able to succinctly or vividly describe the stool, but she does say, “It’s definitely not *C. diff*. It just doesn’t smell like it.”

Sound familiar? Of course it does. As it turns out, studies have shown that nurses can indeed detect the whiff of *diff*, but with highly variable sensitivity (55-82%) and specificity (77-83%). Variations in accuracy seem to depend on the local nursolfactobiograms. With unreliable nurse noses and the painfully slow conventional testing, it just seems like there should be a better way.

According to *BMJ*, there is. And that way is with a dog named Cliff. In a case-control study published in 2012, a beagle trained to identify the scent of *C. diff* was put to the test on 300 patients, 30 of whom had the infection and 270 of whom did not. Cliff was trained to lie down or sit when he detected the scent of the elusive GPR. When confronted with stool samples, Cliff was 30/30 and 270/270, making for a sensitivity and specificity of 100%. Cliff could even detect the infection when sniffing the patients themselves: when guided around the wards to each patient, he correctly identified 25 of the 30 cases (sensitivity 83%, CI 65-94%) and 265/270 controls (specificity 98%, CI 95-99%).

While these numbers are exciting, Cliff has yet to be given a full time job with infection control. It is generally agreed that more research is warranted prior to implementation of routine pet scans for the detection of *C. diff*. **B**

Source:

Bomers MK, Agtmael MA, Luik H, Veen MC, Vandenbrouche-Grauls CM, Smulders YM. “Using a dog’s superior olfactory sensitivity to identify *Clostridium difficile* in stools and patients: proof of principle study.” *BMJ* 2012; 345:e7396.

YPC Recovery Clinic: A New Model

Michael Kaplan

Where have all the people gone? In the aftermath of historic economic and social transformation, modern hospitals have become “awesome citadels of science and bureaucratic order,” according to Dr. Paul Starr, and, well, they can certainly feel a bit lonely. That is, it seems as though the real-life Human—the artist, the lover, the hummus enthusiast—is status-post some kind of lithotripsy-of-the-person, having been zapped into a pulsating pile of nasogastric residuals and ejection fractions. Yes, it’s difficult to practice biopsychosocial medicine as a new intern, dog-paddling in turbulent waters of metrics just to stay alive. It’s from these waters that I wholeheartedly praise the SRC Addiction Recovery Clinic, staffed by the Yale Primary Care (YPC) house staff and faculty.

Spearheaded by Drs. Tetrault and Holt, the clinic meets weekly to treat substance use disorders. Our patients are often fresh from an inpatient brush with death, coming to us looking for relief from their addiction. We meet twenty-somethings in florid heroin withdrawal, shivering and keeled over from nausea. We meet women who opt for a buttock injection of viscous naltrexone to minimize cravings so that they might afford a meal for their kids. We meet young men who have found God in the pits of Hell and are on the road to recovery. It seems as though the very nature of addiction, though incontrovertibly rooted in

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Writers' Workshop, continued from page 1

A number of the pieces ponder death, perhaps the most difficult subject with which physicians grapple. But residents write about other things too. In last year's Workshop alone, themes included the psychology of psychiatrists, the social turmoil surrounding the Native American healthcare system, and personal experiences with racism, religion, and cultural divides.

Even better, these characters walk. They move out of that room in which they're created and grace the pages of reputable journals—*JAMA*, *The Annals*, and *JGIM*, to name a few. Over the past eleven years, writers have published well over thirty pieces originally crafted in the Workshop. Several alumni have continued writing, starting creative writing sections of academic journals and showcasing later work in the *New York Times*, *The NEJM*, and *Huffington Post*. Writers mature through rejections, acceptances, and the honesty of knowing when a piece has been completely realized.

This year's Workshop takes place on November 14th-15th, and final pieces will appear in *Capsules*, the Workshop's annual anthology. A special Medicine Grand Rounds follows the Workshop each winter, when an established author talks about writing in medicine. This January, physician, author, and professor of Narrative Medicine at Columbia University Sayantani DasGupta will take her turn at the Fitkin podium, joining the ranks of distinguished past guests like Stephen Bergman (aka Samuel Shem of *House of God*).

The Workshop is surprisingly about more than producing a polished essay. Writing becomes a vessel through which we can express our deepest and most tangled observations in a neat and comprehensible way. Through each other's stories, we bear witness to medicine's atrocities, joys, and seemingly impossible truths. We listen for them the next time we take a history. And when we commit these stories to paper, we understand better, think more clearly, and care for our patients more genuinely. **B**

Record Keeping

Throughout the course of our collective experience, we have seen some remarkable physiology. Here are some extreme values that our residents have witnessed, in patients who have since benefited from our care.

- Highest WBC count - 239,000 - Steph McCarty (blast crisis in CML)
- Lowest Hgb - 2.2 - Elana Shpall (iron deficiency anemia from bleeding esophageal mass)
- Lowest platelet count - <1,000 - Beth Heuzey (ITP)
- Highest INR - >29.99 - Elana Shpall (coumadin, antibiotics, poor PO intake)
- Highest troponin - 104.5 - Jen Ouellet (STEMI)
- Highest BNP - 41,000 - Alex Perelman (CHF)
- Highest insulin dose - 225 units NPH BID - Adam Phillips (DM2, morbid obesity)
- Longest pause on telemetry - 10 seconds - Krishna Sury (high-degree heart block)
- Highest glucose - 1440 - Albert Do (DM2)
- Highest A1c - >18 - Albert Do (DM2)
- Highest lactic acid - 26 - Steph McCarty
- Lowest potassium: <1.5 - Dan Savage, ED resident (hypokalemic periodic paralysis)

Recovery Clinic, continued from page 3

the physiologic sciences, is equally and unapologetically fused with real life.

The story of Mr. S. illustrates the point nicely. Mr. S. struggled with alcohol use disorder, his history complicated by multiple alcohol withdrawal seizures and DTs. He started drinking after his father died and relapsed, following a significant period of sobriety, after his son's suicide. Psychosocial elements in his story are clues, like JVD or an S3, that indicate pathological circumstance. Only weeks after we started him on naltrexone, an opioid antagonist which (somehow!) modulates alcohol cravings, he reported that his life had completely

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Beeson Bombers Season Recap

Beeson Bombers Capture First Place in Regular Season; Fall to Rivals in the Playoffs

Benjamin Howell

For the Beeson Bombers, the 2014 season of slow-pitch softball ended the way it started, in a loss to dreaded rivals the Big Buck Batters. In between those two games, they could do nothing wrong, stringing together an eight-game winning streak and capturing the top seed going into the playoffs.

Led by the trio of third year residents Kolene “Koko” McDade, Ross “Twinkle Toes” Mund, and Mike “Meatball of the Green Team” Nanna, the team was made up of a solid core of regular players drawing from the ranks of the Traditional, Primary Care, and Preliminary residency programs in addition to program alumni and several attendings. Regular participants included Will Becker, Ali Romegialli, Sara Schaefer, Brandon Mancini, Stephanie McCarty, Ben Cherry, Anne Mainardi, Thomas McCarty, Trevor Bledsoe, Joe Cavallo, Heather Klavan, Avi Sofer, Richard Sutton, Marta Wilczynski, Meena Elanchenny, Dan Federman, Rob Fogerty, and others.

After the loss in the season opener, the team started to click as a well-tuned engine, demolishing opponents left and right. Highlights of the regular season included season sweeps of the Immunizers (Pediatrics) by scores of 20-1 and 12-5, the Boneheads (Orthopedics), the Untouchables, and Finance. They also tasted sweet revenge over the Big Buck Batters in a hotly contested come-from-behind win in the second-to-last game of the regular season.

Home runs were plentiful, the defensive highlights were frequent, and much fun was had by all. Reports of each successive win were readily devoured by the growing fan base in the Department, and by the end of the regular season they had left little doubt that this was a special team that had a real chance to win it all and capture the Yale-New Haven recreational softball league championship crown.

A 7-1 regular season record placed the Bombers in the top seed going into the playoffs, and in the first-round game they demonstrated the lockdown defense and offensive fireworks that had gotten them there. They demolished the Boneheads 42-0. Highlights of the game included Joe Cavallo’s first inning lead-off home run, igniting a 12-run inning and a stellar pitching performance by Sara Schaefer.

Unfortunately, the championship was not to be theirs. Following a second round bye, they met the Big Buck Batters for a third time and, despite a valiant effort, fell in defeat.

Thus concluded an impressive season from the Bombers, with a final record of 8-2 that easily eclipsed last season’s .500 record. Although disappointed by falling short of the championship, the Bombers and their fans took heart in Dr. Kapadia’s words after the season-ending loss: “Remember the game’s the thing. Winning and losing is secondary.” **B**



Dreaming up a New Way of Thinking

Armand Russo

In their abstract way, dreams usually give the nugget of a good insight. I want to share a dream that got me thinking about how to be a better physician. Bear with me. . . .

There is a lot more inspiration, unconscious processing, symbol, memory, and other sense ultimately involved in making a good decision than we realize. My dream shows that. The insight from this dream is about how we keep our perspective fresh with common cases and seek new ways to make decisions. Basically, we can't get stuck in protocol or Bayesian analysis at the expense of creative ways of problem solving. And Armand's brain in his dreams always is a lot more creative than Armand's brain during waking life.

The dream was through my present eyes. I was at Swarthmore College, where I was a student from 2004 to 2008. I was a new freshman again. The hilly campus has a commuter rail line at the bottom of the hill that takes you to Philadelphia. This was in the dream, but it looked different. The campus had old wooden dorms, and they gave off a cedar smell in the heat of a dying summer. The smell was there, but the dorms were not the same. The interiors had the look of small rooms and corridors in a wooden castle. This did not look like Swarthmore at all, but it was.

This was the interesting thing: everything was new again. It wasn't simply a recollection of Swarthmore. Somehow, in order to connect me back accurately to the memory of being a freshman again, my brain created a new Swarthmore! In my dream, as the present me, now a resident at YNH, I became a college freshman again. The feeling of being new at Swarthmore was there in its entirety, complete, but with details remade to show just what it was like experiencing college for the first time again.

What's the analogy to doctoring? All the patients you have seen with a common condition, whether it was heart failure or COPD, are your first Swarthmore. It was

a state of innocence. But the old cases are still floating out there for you to recapture and remake them when new details are provided to you. It's a feeling of completeness and sophistication when you recapture Swarthmore again and the *new* patient makes sense to you. This is the process of residency training, and you are in it right now. ^B

Buried Alive, continued from page 2

physicians know with certainty that a person has indeed passed away. On Thursday, September 25th, 2014, a group of mourners in northern Greece heard muffled yells and thumping coming from the grave site of their just-buried loved one. By the time she was exhumed, she had passed away. Tests are ongoing to determine if she had indeed been buried alive. ^B



Sources:

Whetstein, Leslie M (2008). *The History of the Definition (s) of Death: From the 18th Century to the 20th Century*. In *End-of-life Communication in the ICU* (pp. 65-78). New York, NY: Springer.

Poe, Edgar Allen. "The Premature Burial." *The Philadelphia Dollar Newspaper*, 1844.

"Greek Woman 'Buried Alive by Accident.'" *BBC News* 26 Sept 2014. <http://www.bbc.com/news/world-europe-29373806>.

Image Challenge:

A Case of Persistent Dysphagia

By Joshua Bilborrow



A patient presents with complaint of chronic dysphagia involving both solids and liquids; she reports persistence of substernal chest discomfort since consumption of her last meal several hours prior.

What is the diagnosis?

High reliability teams, continued from page 2

Learn your team

Remember being called “med student” during third-year rotations? Pretty deflating, right? In a Hopkins study of teamwork among physicians and nurses, researchers found that team members were more likely to communicate a safety concern if they had participated in an operating room briefing where they were introduced by name. Individuals also reported feeling more respected when asked to perform a task after their name was used. Names matter.

Embrace your inner rock star

Van Halen was one of the first bands to perform on a high-budget, high-risk, nationwide tour, and one article embedded deep within their text-book sized contract played a pivotal role in their success: the Brown M&M clause. It specified that a bowl of M&Ms be placed backstage at each performance—with every brown M&M extricated. Was this a diva move? Surprisingly not. It was a checklist. Discovery of a brown M&M would alert band members of other potentially overlooked items and would trigger a line-check of the entire production. In Pueblo, Colorado, the clause helped the band discover that builders had not read the weight requirements for the stage, which would have collapsed. The show was cancelled and the team avoided disaster.

Like Van Halen, we use checklists—we have procedure time-outs and “run the list.” I suggest that we expand our checklists to capture other important aspects of patient care, like communicating with nursing or calling families. Last month, our Cooney team used a discharge checklist; through it, we identified preventable barriers to discharge almost daily. Sit down with your team and reconsider your list. Is there anything you might add?

I argue that a highly reliable team—a team that effectively communicates, supports one another, and constantly seeks ways to improve—is key to becoming a highly reliable organization. Through being better to each other we can be better doctors for our patients. **B**

Sources:

Bodek, Norman. "Zenjidoka, Solving Toyota's Quality Problems." *Qualitydigest*. 14 Feb 2011. <http://www.qualitydigest.com/inside/quality-insider-column/zenjidoka-simple-tool-complex-problem-solving-toyotas-quality.html>

Gawande, Atul. *The Checklist Manifesto: How to Get Things Right*. Henry Holt: New York, 2009. Print.

Makary MA, et al. Operating room teamwork among physicians and nurses: teamwork in the eye of the beholder. *J Amer Coll Surg*. 202.5 (2006): 746-52.

Image Challenge: Answer

This PA chest radiograph demonstrates **severe achalasia**, with particularly defined esophageal margins due to the presence of air in both the esophagus and lungs. The dilation can be seen arising from the proximal gastric fundus and extending up into the soft tissues of the neck.

* * *

The patient was a 72 year old woman without significant past medical history apart from chronic dysphagia who was admitted to the Fitkin Service due to concern for food impaction and need for urgent upper GI endoscopic removal. She underwent successful EGD and removal of impacted food bolus, but her course was unfortunately complicated by upper oropharyngeal edema secondary to the endoscopy that required short-term intubation for airway protection.

Achalasia is a disorder caused by failure of smooth muscle relaxation. Specifically, within the esophagus, the lower esophageal sphincter and esophageal smooth muscle both fail to relax, leading to dilation and the classical “bird’s beak” appearance on chest radiography and barium swallow. The etiology involves dysfunction of the distal inhibitory neurons within the esophagus. Primary achalasia is most common, and the cause is unknown. Secondary achalasia can be caused by different etiologies, including esophageal cancer and Chagas Disease (American trypanosomiasis).

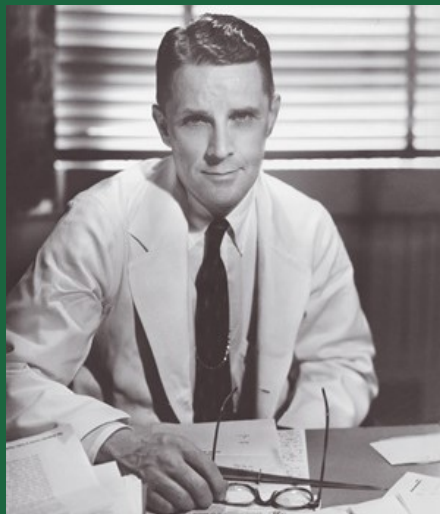
Symptoms can include dysphagia (solids and liquids), regurgitation of food, and chest pain.

Treatments include calcium channel blockers, nitrates, botulinum toxin injections into the LES, pneumatic dilation of the LES, and/or surgery (Heller Myotomy). Medical therapies are often shorter lived but have less inherent risk compared to surgical treatments. ^B

Further Reading:

Lake JM and Wong RK. “The management of achalasia – a comparison of different treatment modalities.” *Alimentary Pharmacology and Therapeutics*. 24.6 (2006): 909-918.

Spieker, MR. “Evaluating dysphagia.” *American Family Physician*. 61.12 (2000): 3639-48.



From the Desk of Paul Beeson, MD

“Thirty-six awards, elections, degrees and even a title came to Paul Beeson over the six decades of his career. The one that he learned about in early 1996, though, pleased him most. With the encouragement of several of the “Fitkin Iron Terns,” his last group of interns at Yale, the Department of Internal Medicine named the Medical Service at Yale-New Haven Hospital in honor of Dr. Paul B. Beeson, recognition shared with only one other internist in America; the Medicine Service at Johns Hopkins is named for William Osler.”

Rapport, Richard. *Physician: The Life of Paul Beeson*. Barricade Books, 2001.

Intern Spotlight

Yihan Yang

Rachel Beekman

Prelim, Neuro

Hometown: Dix Hills, NY

Undergrad: Emory University

Med School: Stony Brook

Facts:

1. I can still recite the Italian alphabet after taking one Italian class in 6th grade
2. I married my high school sweetheart
3. I went sky-diving for my honeymoon even though I am equally afraid of heights and planes



Jordan Sack

Traditional

Hometown: East Greenwich, RI

Undergrad: Brown University

Med School: Warren Alpert Medical School of Brown University

Facts:

1. Coming to Yale for residency is my first time living out of RI! It's been great here!
2. I am a "bionic" intern – I use a cochlear implant and hearing aid to hear.
3. My interests in history and art have led me to travel to Asia, Europe, and the Middle East

Omoye (Oye) Imoisili

Primary Care

Hometown: Ellicott City / Columbia, MD

Undergrad: Princeton University

Med School: Columbia University College of Physicians & Surgeons

Facts:

1. I enjoy learning about various cultures, whether that is through food, language, art, music or travel
2. For many years I have been a fan of Japanese animation. I have watched dozens of series, participated in multiple anime conventions, and twice spent at least one month in Japan.
3. What is the sound of one hand clapping? Find me and I will gladly display this unique talent upon request.



The Beeson Beat Staff welcomes
new members

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Christopher Sankey

Recovery Clinic, continued from page 4

changed. He felt more lucid. He started to rekindle his relationship with his wife and felt organized enough to attend AA meetings. In short, he started to heal.

Addiction medicine holds a unique position in the world of primary care. Standing at the crossroads of the ghost and the machine, addiction medicine is at the frontiers of biopsychosocial medicine precisely because its nature is inextricably fused with the character; Mr. S.'s greatest fears and hopes, his relapses and triumphs of abstinence—these are not extraneous elements of a history and physical. These are dependent variables of treatment. And these measures are real, equally as real as EFs: These are measures of real life. It's being so close to life that I've had the opportunity to decompress, step back, and remember where the people are.

So should you find yourself paddling away just to keep your head afloat, try to stop by YPC's Addiction Recovery Clinic. You won't regret it. **B**

B

**Think we missed something?
Like to try your hand at contribution?
Thinking about joining the staff?**

**Send comments, suggestions, and submissions to
yaleIMnewsletter@gmail.com**