

COVID-19 Letter

Impact of COVID-19 on an Academic Pain Fellowship Program

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Background: While the COVID-19 pandemic still rages on in the United States, leaving in its wake hundreds of thousands of infected patients, families shattered by the untimely death of their loved ones, an economy in free fall that hit all-time highs barely a few months ago, and a fearful citizenry unsure of what the future holds, the effect it has had on residency and fellowship training programs across the country may appear inconsequential to the general populace. However, if you are a graduating trainee confronted with this unusual set of circumstances, fear of the virus is not the only thing that is foremost in your mind.

Methods: Literature review.

Results: We discuss the unique challenges our pain fellowship program continues to deal with during this pandemic and particularly its impact on our fellows. It is entirely likely these concerns are mirrored in academic programs all over the United States.

Limitations: A narrative review with paucity of literature.

Key words: COVID-19, pain fellowship, interventional pain, graduating trainees, pain clinic, medical education during a pandemic

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To say we live in unprecedented times is an understatement, even in the current era where hyperbole rules. A few months ago, when news reports of a novel corona virus outbreak in Wuhan, China, first trickled in stateside, it barely registered in our consciousness as something you might need to remember later in a game of “trivia.” Barely a few months later we are in the midst of a global pandemic, the likes of which most of us have not experienced in our lives. The pandemic continues to take its toll on unsuspecting lives, baffling even experts in epidemiology and infectious diseases in the sheer ferocity and speed of its spread globally bringing the world to a standstill, unlike any other calamity in the past century. The health-care system in large metropolitan areas such as New York earlier and now Houston have been stretched to their limits and beyond and our nation’s inability to curb the spread of

this scourge has further deepened the political divide in this country and exposed the “soft underbelly” of the best health-care system in the world. New words have been introduced to our daily lexicon – personal protective equipment (PPE), health-care heroes, social distancing, lockdown, “stay in place” orders, and “flattening the curve” are just a few that come to mind. While our state continues to see a rise in new cases of COVID-19 daily, the sheer number of cases has been low relative to the northeastern United States. This has afforded health-care institutions here an opportunity to better prepare for a potential surge in cases and get systems in place to ensure hospitals are not overwhelmed when the peak inevitably comes. While the health-care and economic impact of the COVID-19 pandemic is splashed across all media outlets and health-care workers on the frontline are getting their long overdue recognition, the real-life

impact on trainees in health-care has largely gone unnoticed (1,2). This is especially impactful on a one-year program such as our pain fellowship. We outline the numerous unheralded consequences of the pandemic and our efforts to ease the burden on our trainees.

IMPACT ON CLINICAL EXPERIENCE

With the federal and local guidelines on social distancing and stay in place orders, pain clinics across the country especially in academic centers have been forced to stop all interventional procedures and move to telehealth. The need to protect our patients and health-care workers by reducing their exposure to the virus and preserve precious PPE for frontline health-care workers has rightly prompted the decision made by hospitals across the country to cut down on all elective procedures. In a typical residency program that is 3 to 5 years long, a “lockdown” that is now in its third month may not necessarily impact the overall quality of training. There is plenty of time to catch up for the junior residents and most residents that are ready to graduate in a few months have already fulfilled all their requirements in terms of clinical experience and are essentially coasting as they near that finish line, confident in their skills as they prepare to spread their wings as independent practitioners. However, with most pain fellowships being just a year-long and external rotations away from the clinic accounting for another 2 to 3 months, these 3 lost months account for almost 25% of their clinical experience in learning interventional techniques. In a rapidly expanding field where newer interventional pain techniques are being introduced all the time, this is particularly alarming to the trainees, teaching faculty, and potential employers. With a majority of pain fellows pursuing private practice following graduation where number of cases and workflow play a major role in impacting their bottom-line in terms of reimbursement, this loss in clinical time could seriously impact their preparedness for the jobs most of them have already signed up for. The manual dexterity and confidence that an additional 400 – 600 interventional procedures could provide a trainee is incalculable. While procedural skills typically get all the attention, let us not forget the impact that not seeing patients in person has on a trainee’s physical examination skills. In fact, it is often the second half of the training year that most fellows venture beyond their basic physical examination skills to fine tune their diagnostic skills to look for the rarer causes of pain, as their knowledge in

the specialty rises. Some fellows may miss external rotations and therefore their exposure to other specialties that directly impact the care of the pain patient. This could impact their preparation for their future board examinations as well.

FUTURE EMPLOYMENT

Most academic faculty have by now received calls from potential employers of our trainees inquiring about the impact of this lockdown on their skill levels. It is our job as educators to give these employees an honest appraisal of a the skill level of their potential employee/partner. While our loyalty may lie with our fellows, in the interest of future patient care, it is imperative that this appraisal is factual and as detailed as possible, broken down to specific interventions. While certain fellows may be facile with some advanced procedures, they may still need to refine their hand skills in others. This information, if presented in an appropriate manner to the potential employer/partner should not jeopardize the fellow’s employment but rather serve as a guide to the employer to put systems in place to proctor them appropriately through some interventions in the early days. On the other hand, if a trainee is not ready for independent practice, the time available while clinic census is low can be utilized to “coach them up” using cadaver labs or simulation techniques and more one on one didactic sessions that are typically impossible in the middle of a busy clinic schedule that was the norm in most practices prior to the shutdown.

With the potential impact on clinical training and the likely need for further proctoring, some employers may approach their potential employees to re-negotiate their salaries to account for this shortcoming.

Another potential factor that could impact a fellow’s employment is their board certification status. With the American Board of Anesthesiology (ABA) essentially canceling all anesthesia oral board examinations for the rest of the year, these candidates who were expecting to be board certified by the start of their employment as pain physicians are now going to be merely board eligible. Often present-day employment contracts have additional reimbursement clauses tied to their board status. This could potentially have another \$25,000 – 50,000 reduction in the new graduate’s salary, a significant amount especially considering most graduates have several hundred thousand dollars in student loans to pay at the time of graduation. A delay in their primary board certification could lead to

another year's delay in subspecialty board (pain) certification, further complicating the situation. There are preliminary communications from the ABA that candidates may be allowed to take their pain boards before their rescheduled oral boards, though results will not be released until the candidate successfully completes their primary board certification.

GRADUATION

After the rigors of residency training and the additional commitment of a fellowship year, it is natural for trainees to look forward to celebrating the end of their training. Many have invited their friends and family from near and far to be a part of this momentous occasion. It is uncertain at this time whether most academic institutions will even go ahead with their planned graduation ceremonies. The uncertainty of the weeks ahead and what the new normal will look like is too nebulous for anyone to make concrete plans. The restrictions and fear related to air travel will limit family participation even if graduation ceremonies are held. The limits on public congregations and the need to protect the health of their employees will no doubt weigh heavily on the minds of academic program directors while deciding to pull the plug on what is often the highlight of the academic year.

IMPACT ON PATIENT CARE

As the virus spread rapidly throughout the world, certain issues unique to the field of pain management came to the fore. A significant percentage of our interventions, both diagnostic and therapeutic, involve the administration of steroids for their anti-inflammatory properties. However, their potential to cause adrenal insufficiency (3-5) and immunosuppression (6-9) could increase the morbidity and mortality should patients' contract COVID-19 subsequently. To add to this, elderly and morbidly obese patients with multiple comorbidities form a large chunk of the patient population in clinics such as ours, further increasing their risk (10-12). Several pain societies have cautioned practitioners to consider the risks of such interventions and include this information while obtaining an informed consent from the patient prior to any steroid-based intervention. Non-steroidal anti-inflammatory drugs (NSAIDs) are another mainstay of treatment in most pain clinics and this class of drugs has been implicated in increased risk of morbidity with COVID-19 as well (13). Patients will need to be made aware of this and alternative medications prescribed. The impact that medications

we routinely use can have on increasing patient risk of getting or overcoming the virus (14) has been an eye opener to our fellows, giving them a new perspective that everything we do for patients has to undergo a risk/benefit analysis. As a trainee, the desire to learn interventional pain procedures sometimes takes precedence over all else but this sobering information reiterates the fact that not everything we do with the best intentions is entirely benign. We must live up to our role as physicians to above all "Do No Harm."

PERSONAL WELLBEING AND WORKPLACE SAFETY

While our fellows have continued to fulfill their clinical responsibilities, our hospital has been able to allay their fears and anxieties by providing them adequate PPE and making available mental health resources to trainees who are having a particularly hard time dealing with the risks as a frontline health-care provider. In the clinic we have been cognizant of the need to maintain adequate distancing between personal workstations and allowed them more flexible work schedules.

THE SILVER LINING

While the COVID-19 pandemic has affected training programs adversely, there are several positives that have come out of this situation as well. Here we enumerate some of the consequences of this public health calamity that has bolstered the knowledge and resolve of our trainees.

TELEHEALTH

One of the obvious positives that emerged from this pandemic is the use of telehealth.

With the need for social distancing to protect patients and health-care workers and reduce their potential exposure to the virus, health-care systems have had to quickly adopt alternate strategies to continue to provide patient care without the usual face to face encounters. In the setting of chronic pain, it is particularly important to prevent any feelings of abandonment that patients may feel during this critical juncture if they are unable to visit their doctors. The need to continue opioids, if any and preventing withdrawal is another vital component of patient care. When Center for Medicare and Medicaid Services (CMS) and other insurance companies allowed for telehealth visits to continue patient care, our fellows were in the forefront optimizing the patient experience. While most trainees

have heard of telehealth as an option to improve access to health-care in underserved areas, none were familiar with the actual way it could work. Five weeks later they are extremely facile with this method of evaluating patients and they have stepped up to help older faculty get more comfortable with it. This experience has given our fellows a deep sense of accomplishment as they are able to reassure patients that things are going to be fine, and that as their physicians, we will continue to strive to meet their needs.

DIDACTICS AND SCHOLARLY ACTIVITY

As the COVID-19 pandemic has not overwhelmed hospitals in our state and clinical responsibilities are not as intense as they were a few short weeks ago, our fellows have found the much-needed time to complete research and quality improvement projects that had been on the backburner. Our didactic schedule has moved to a primarily web-based platform and our level of comfort with Webex conferences and Zoom meetings has multiplied exponentially. Multiple pain societies have graciously extended free memberships to their societies for graduating trainees to be able to access their online education portals and teaching tools. American Society of Pain and Neuroscience (ASPN), American Society of Interventional Pain Physicians (ASIPP) and American Society of Regional Anesthesia (ASRA) have all held multiple free webinars to discuss various pain topics that have enhanced all our knowledge.

RESPONSE TO A CRISIS

As the pandemic unfolds, it has been heartening to see how various health-care stakeholders, medical societies, health-care workers, and even the general public have responded to the crisis. From a trainee's standpoint, this has been nothing short of inspiring. While insurance companies get a lot of bad press for their numerous regulatory restrictions on patient care, they have stepped up to reimburse hospitals for telehealth visits just as they would for face to face visits. The loosening of regulations to allow these visits using any social platform has allowed patient care to

proceed with minimal inconvenience and thrown an important lifeline to hospitals and clinics struggling with decreased reimbursement during this lockdown. The Drug Enforcement Agency (DEA) and state medical boards have done their part in relaxing the restrictions on continuing narcotic prescriptions on stable patients by forgoing the need to perform urine drug screens, giving us the ability to call in some controlled substances and mailing the prescriptions to the pharmacy later to insure patients have uninterrupted access to medications. These agencies only require physicians to use the State Prescription Monitoring Programs (PMP) for every patient requiring a controlled substance prescription. These actions have certainly helped our fellows gain trust in the health-care system in this country as they venture out to start their own practices and interact on a more personal level with these very entities.

CONCLUSION

While the true impact of the COVID-19 pandemic on life as we knew it is yet to be determined (14), based on the resilience and the "can do" attitude displayed by our trainees, it is obvious that the future of our subspecialty is in great hands. As pain management is an extremely competitive field to break into, the fact that we are blessed with some of the best young minds coming into the field is not surprising. However, as proud faculty, to see such clear evidence of this in such dark times is truly inspiring. These are our very own "health-care heroes."

Thanks to the coronavirus for letting us truly appreciate them.

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