Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to the Editor

Considerations for the outpatient practice in pediatric surgery during the novel SARS-CoV-2 pandemic

Dear Editor,

The SARS-CoV-2 (COVID-19) pandemic has traveled the world without respect for geographic borders and impacted the lives of nearly every human soul on the planet. The novel virus responsible for this pandemic usually results in little to no symptoms in the pediatric population [1,2]. This makes children nearly the perfect natural reservoir for the spread of COVID-19. Unfortunately, the older human population does not tolerate infection with COVID-19 nearly as well with morbidity and mortality that increases with age and medical comorbidities [3–6]. With no real effective direct therapy or vaccinations for the novel coronavirus, the mainstay of management for the human population is social isolation and quarantine in an attempt to either prevent or at least slow the spread of the virus [7–9]. As part of this strategy elective office visits and surgery have been suspended in most pediatric surgical practices to decrease the opportunities for spread of the virus [7–14]. This practice also helps preserve the limited supplies of personal protective equipment available for managing critically ill patients with COVD-19, and leaves recovery room areas open to become make-shift intensive care unit space.

Our pediatric surgical practice is comprised of 5 surgeons and our practice is about 70 % elective. Canceling our elective clinic consultations and surgeries left us, like I'm sure many pediatric surgeons, feeling lost in the midst of this world-wide crisis. Seemingly overnight our outpatient clinic utilization went from 92% (185 visits a week) to 14% (13 visits in the week). Certainly, changes like this have had serious workforce and financial implications to practices across the country. But more than that, as physicians seeing the suffering of our communities, we want to serve and do our part to help our medical brothers during this time of need. We sought to adapt our practice to evolve to the changing needs of our community.

As the surge of COVID-19 patients approached, a big concern for the community was overwhelming emergency room services. We felt there must be some volume of urgent pediatric emergency room care that we could provide to our community in our outpatient office. This would be a win for everyone. Relieving burden from the emergency room, avoiding the patient and family stress of going to the hospital during the pandemic, and creating meaningful work for our surgeons and office staff. So, we transformed our clinic into a pediatric surgical urgent-care. Our clinic coverage schedule was changed to make sure it was staffed by one pediatric surgeon full time Monday through Friday. We felt this was necessary to decrease the chances of COVID-19 being spread throughout the group should someone become infected. This was an important consideration since in Western Massachusetts there are no other groups of pediatric surgeons that could provide cross coverage should everyone in our group become ill and need to be quarantined. The routine call schedule for the coverage of acute surgical consultations at the children's hospital was maintained. We followed our health system's guideline in regard to infection control. All staff and families were screened for signs or symptoms of COVID-19 infection and temperatures checked before entering the office. All staff, patients, and families wore surgical masks at all times while in clinical areas. Patients were only permitted to be accompanied by one family member.

We reached out by telephone to the emergency room and all the local pediatric practices to inform them we would be available to urgent referrals and walk-ins Monday through Friday. We provided a list of disease pathology that we felt would be appropriately managed in the pediatric surgical urgent-care such as; lacerations, minor soft tissue infections, abscesses, soft tissue foreign bodies, pilonidal disease, minor traumatic injuries, and select cases of abdominal pain.

Our community welcomed our urgent care services. One aspect of the COVID-19 pandemic that has not yet been widely discussed is the fear associated with this global crisis [15]. Members of our community seem to have developed apprehension about coming to see health professionals, especially in the emergency department. Since our office was located in a separate building several blocks from the main hospital complex, families were all too happy to take advantage of the opportunity. However, urgent care is not all that we welcomed into our office.

As pediatric surgeons we are constantly reminded that one of our most important jobs is to advocate for the child. During the circumstances of this pandemic children's needs around the world are at risk of being pushed aside. The financial impact of the pandemic on some pediatric health care systems may even result in the loss of pediatric subspecialty services in some communities. With all elective procedures suspended at our institution a small population of patients quickly fell through the cracks, newborn baby boys. A discussion of the pros and cons of circumcision is well beyond the scope of this letter, but the fact remains that about 70–80% of families in the United States choose circumcision for their sons [16]. While many circumcisions are performed prior to hospital discharge after delivery, a number do not, and are performed under local anesthesia in outpatient procedure units during the first two months of life. During the COVID-19 pandemic every admission for labor and delivery is getting tested for the novel coronavirus, and while that test is pending the mother and infant remain on isolation as patients under investigation until the test results are available. With the current three-day turnaround time on the test most of the newborn males are missing the opportunity for a circumcision during the hospitalization because they cannot be brought into the nursery for the procedure. While all our procedure units are closed to elective procedures like circumcision, this growing population of baby boys is aging out of their opportunity for a circumcision done under local anesthetic. This will leave the families with the uncomfortable decision of proceeding with circumcision later in life under general anesthetic, or leaving their son uncircumcised. And while many men will

be just fine uncircumcised, in a family with the tradition of circumcision, their father will be ill prepared to educate them on proper hygiene practices. With the cooperation of the hospital's pediatric procedure unit we were able to move all of the necessary instrumentation and equipment to our office for performing neonatal circumcisions. At the time of writing this, 14 baby boys have benefited from circumcision in the office under local anesthetic, avoiding the need for a procedure under general anesthetic later in life. Falling into the same category, at risk to outgrow their time window for a procedure under local anesthetic, we have also adapted to performing removal of uncomplicated polydactyly and preauricular skin tags in the office.

In the face of COVID-19 we can only hope for small victories, but small victories are what win wars. With the above strategies, and rolling out Telemedicine in our practice, we have recouped some of our outpatient service losses. We are now seeing patients at 42% utilization and the numbers are steadily rising. As a pediatric surgeon remaining flexible and adaptable to the needs of the community can help minimize disruption to your practice and maximize your contribution to the community. Pediatric surgery training provides the surgeon with a diverse skill set that makes them well suited to practice adaptation. COVID-19 has impacted most aspects of the health care system in the United States. Immediately visible are the tragic consequences from the overwhelming of health care systems with critically ill patients like in New York. However, the emotional and financial devastation on health care workers and their communities will likely far outlast the need for ventilators.

Michael V. Tirabassi
University of Massachusetts Medical School-Baystate, Baystate Pediatric Surgery, 100 Wason Ave., Suite 220, Springfield, MA 01107
Tel.: +1 413 794 2442
E-mail addresses: Michael.Tirabassi@baystatehealth.org, tirabami@gmail.com

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