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.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

A call to arms

The COVID-19 pandemic has created unprecedented challenges. We have observed areas of the country, such as New York and Washington, struggle heroically during this crisis. To prepare for our battle with the virus, we reassessed the role of vascular surgeons while maintaining a perspective on the vascular health of our population. We developed protocols to govern care while deferring elective procedures. These protocols were correlated across care delivery in our operating rooms, outpatient clinics, hospital ward, vascular laboratory, and office-based laboratory, thereby establishing consistency and objective metrics to guide the difficult decisions thrust on us while serving the greater good. Communication with faculty and staff was critical in implementation of this response. Vascular patients have urgent issues that if left unaddressed may lead to suboptimal outcomes with increased resource utilization. The coordination of protocols has been important to deliver such urgent care on an objective and responsible basis.

Social distancing, including reduced exposure for staff and patients, has greatly expedited the utilization of telemedicine in our practice. We quickly launched a telemedicine program incorporating remote monitoring to assess tissue perfusion and wound healing. Care delivery in the office-based laboratory and ambulatory surgery center settings has also received renewed emphasis. Planning for the resurgent pent-up demand created by postponement of nonemergent care will necessarily involve increased utilization of these areas while emphasizing coordination of care across our system and, it is hoped, COVID testing.

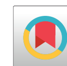
The crisis has had a dramatic impact on the education of our trainees and the financial status of our practices and hospitals. Our legacy demands a continued emphasis on educating future vascular surgeons while adapting from time-honored traditions. Similarly, the financial implications of this worldwide crisis will alter health care economics forever. Vascular surgeons must actively participate in guiding the inevitable changes to care delivery, compensation models, and payer dynamics. Vascular care will play a vital role in health care finances as a key contributor in leading the postpandemic recovery. We write this as a "call to arms" for the vascular surgical community to become actively involved in service to our patients and our specialty.

Richard F. Neville, MD, FACS, DFSVS
Anthony Comerota, MD, FACS
Stephen J. Motew, MD, MHA, FACS

Inova Health System
Falls Church, Va

https://doi.org/10.1016/j.jvs.2020.05.022

Vascular surgery in the COVID-19 pandemic



A novel outbreak termed coronavirus disease 2019 (COVID-19) has continued to challenge the healthcare system globally. By the beginning of April, more than 1,000,000 positive cases, with 51,737 deaths, had been reported.[1] A worldwide response to maintain the healthcare system is essential during the pandemic. The main reason for delaying the performance of elective procedures has been to ensure that the healthcare system keeps up with the pandemic. Numerous concerns have emerged regarding whether to defer vascular procedures and the protection measures necessary during the treatment of a patient with COVID-19.

In Turkey, the Ministry of Health and hospital administrators instituted certain precautions to manage this situation at the outbreak of the pandemic. Deferring elective operations and redefining major hospitals as "pandemic hospitals" were the main measures taken by authorities. Most of the larger volume cardiovascular centers have become pandemic hospitals and have mainly been treating patients with COVID-19. Although it had seemed that some hospitals at first would remain free of patients with COVID-19, the impossibility of having any COVID-free center during this rapidly increasing pandemic was realized. In this context, our center, which is also a designated pandemic hospital, has deferred all elective operations to the greatest extent possible. Also, the arrangements of the work shifts have been organized to have a vascular surgeon on duty at all times (1 day on and 4 days off for each surgeon), especially for all types of open vascular surgeries. Moreover, our endovascular surgical team, consisting of two senior and four junior surgeons, is on call for endovascular procedures at all times.

The availability of the surgical and anesthesia staff, accessibility to the operating room (OR) and angiographically suite, and readiness of surgical equipment and supplies (eg, grafts, sutures, blood products) are considered of top priority when deciding whether a patient should undergo surgery. In addition to the capacity of the healthcare center, what constitutes an emergency situation should be determined specifically for each surgical specialty. Therefore, we have used a concept of "level of priority" (LoP) for cardiovascular procedures.[2] The modified version of this concept for vascular surgery is summarized in Table. The classification of cases under the major headings could be relevant in terms of making decisions for patients during the pandemic. This is also essential for protecting the healthcare staff from possible and/or asymptomatic patients with COVID. Patients whose COVID status is unknown can be better identified using this classification. LoP I conditions can be delayed to the greatest extent possible. LoP II to IV conditions