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.

Foreword
Wound Healing

Ronald F. Martin, MD, FACS
Consulting Editor

There is an adage that time heals all wounds: would that it were so. I suppose if someone were to take an extremist view, one might consider that saying is true in the way one might believe that "all bleeding stops." I think it can be readily said that time, in and of itself, is not the most significant contributor to wound healing and may actually be working against some people. The process of wound healing is complex, involving many interrelated biological processes, host factors, and environmental contributions. Furthermore, there are the wounds that will heal well given time and those wounds that will never heal unless they are actively managed to do so, which, ironically sometimes means getting the wound closed quickly.

I don't know how society will be functioning by the time this issue of the *Surgical Clinics* is distributed. At the time of my writing this, the United States is largely under varying degrees of sheltering-in-place orders and social-distancing rules to attempt to manage the COVID-19 pandemic. A few states are beginning to modify their positions. We don't know how that will change things at this moment. Where I am in Montana, we have been particularly fortunate in that the very nature of the state provides for "social distancing" as a norm. Also, we were able to see the challenges hitting Seattle and New York City long before we had significant disease burden and were able to adopt robust measures in a timely fashion. Some of these measures were significant restrictions of appointment and procedure availability for our patients.

Health care systems around the world had to alter their approaches to the practice of medicine. For us, we had to make many changes, but perhaps one of the most lasting ones will be our marked increase in the use of telehealth measures. One of my administrative colleagues, Jason Spring, first suggested to our group that he believed one of the most important things the COVID-19 pandemic will be remembered for was the conversion of American medicine to greater use of telehealth. I think he will be right. Our use was well under 4% of visits prior to the pandemic, and by the time of this writing, we have some clinics at 40% telehealth visits, with expectations to climb. Of

Surg Clin N Am 100 (2020) ix–xi
https://doi.org/10.1016/j.suc.2020.05.012
0039-6109/20/

course, this phenomenon was driven by many factors, not the least of which was a change in the rules for billing for services.

Virtual life has become a "real thing" for many of us. Telehealth, virtual conferences, remote workstations, and so forth have all become commonplace. Still, sometimes there is no virtual replacement for the real thing. We as surgeons are more acutely aware of that than almost anyone. Certainly, acute care surgery with urgent and emergent operations went on as best it could with modified processes and protective postures. Scheduled procedures (frequently described by that horribly imprecise descriptor "elective") were deferred if possible based on some assessment of their acuity and the safety of waiting. In the middle of those concepts lies the patient who is not in peril of life but cannot suspend their course of treatment. Some patients with cancer fit into this category, but also patients with chronic wounds often fit into this category. These patients did not always have a clear-cut "position" within the proposed hierarchies of needs assessment.

As travel became more restrictive for patients and health care providers of all types, numerous workarounds were created to try to fill in shortfalls in care. Some of them were ingenious and a real testament to the creativity of a people in distress. For many patients who had chronic nonhealing wounds, we tried to combine either self-wound care or assisted-wound care in the home environment with digital support to relay images for assessment by knowledgeable persons. In some instances, this was very helpful, but it was not a replacement for seeing and examining patients in person and for using the other adjunctive tools that we normally have in hospital environments.

As stated at the outset, wound healing is complicated. In some regards, the least important piece of the puzzle is the wound. It is surprising to many that the bigger pieces of the puzzle are the systemic issues. When I would care for people with chronic wounds at our wound center, it never ceased to amaze me how few patients with a wound that had been nonhealing for months (or longer) had not had even the most rudimentary evaluation of perfusion to an area. Or other patients with chronic disease that was poorly controlled had not had measures taken to improve their glucose control or oxygenation.

This issue of the *Surgical Clinics*, edited by Drs Michael Caldwell and Michael Harl, gives the reader a detailed and comprehensive review of how all the clinical, technical, and environmental factors can be fit together to maximize the chance of getting chronic wounds closed and healed. I am particularly grateful that they were able to consolidate the production of this issue during the period of maximum life disturbance from the pandemic.

As in life in general, many things are more complex than they appear to be on the surface. Wound healing is an excellent example of that. It is affected at the most molecular level as biological processes and affected at the most altitudinal level as a problem of socioeconomic dislocation for many. Nonhealing wounds hobble our patients literally and hobble our society with other substantial costs. If we are to improve life and quality of life for these patients, we need to address as many of these issues at all levels as best we can. This collection of reviews should help one do that or at least advocate for it.

We at the *Surgical Clinics* wish everyone good health and safety. I hope that by the time you read this, your own personal situation will be markedly improved and you will

be able to enjoy your health and society with loved ones. Thank you all for your support of this series. We are grateful for you.

Ronald F. Martin, MD, FACS
Colonel (retired)
United States Army Reserve
Kalispell Regional Healthcare
Kalispell Regional Medical Group
Division of HPB Surgery and Surgical Oncology
310 Sunnyview Lane
Kalispell, MT 59901, USA

E-mail address:
rfmcescna@gmail.com