A Day in the Life

Scott Blow, MPAS, PA-C

The author secures a 2:1 meshed skin graft to a lower extremity.

When I was a student in PA school at the University of Florida, I never imagined that I would work in a burn center. This was one of those medical subspecialties that was discussed but never truly covered in depth. By no means am I the first PA to work in this field; I'm just one more in a line of dedicated professionals striving to improve patient care in this challenging medical subspecialty.

I work at an American Burn Association/American College of Surgeons-verified regional burn center in Florida, where I treat all types of burn wounds. Many of our patients are referred to us from other hospitals, emergency departments, and physician offices. I work with a team of clinicians that includes an attending physician, a burn fellow, three plastic surgery residents, and an ARNP.

Scott Blow works at the Tampa General Hospital Regional Burn Center, Tampa, Florida. He has indicated no relationships to disclose relating to the content of this article.

5:30 AM

I arrive early and round on all of my patients for the day. I check the daily list of patients and see that we had some new admissions overnight. A 23-year-old white male who was burned during an airplane crash is in the burn ICU. He fell 200 feet and, amazingly, he suffered only a broken clavicle. His burns, however, cover 75% of his total body surface area (TBSA) and appear to be mostly full-thickness injuries with some circumferential burns on his extremities. I know that his wounds, fluid status, and pulses will have to be closely monitored for the next several hours to assess for compartment syndrome. After his wounds are debrided, I apply silver sulfadiazine cream and cover the burns with a dry gauze dressing. A sobering way to start any morning.

6:30 AM

I meet with my team for pre-rounds prior to walking rounds with the attending physician. We discuss overnight events and how our patients are doing. The meeting is brief; then, we divide up the orders that need to be written, patients who need to be transferred or discharged, and the services we need to consult for our patients before entering the operating room.

7:30 AM

Our first OR case is a 34-year-old white male who had attempted to burn some brush with gasoline and a lighter 4 days ago. The fumes ignited and caused a flash flame burn injury. He has a 10% TBSA burn to his bilateral upper extremities and hands that initially appeared to be a mix of partial- and full-thickness injury; through serial wound examinations, we determined that he would need skin grafting. After seeing the patient and checking his labs, we take him back to the burn OR. The patient is sedated with general anesthesia; and, after he is prepped, we begin the process of excising the burn wounds. I begin tangential excision on one arm while the burn fellow works on the other arm. Because these surgeries can be very bloody, we always make sure that we have cross-matched plenty of blood for our patients. We use a mixture of tourniquets, tight gauze wraps, and a thrombin spray to achieve hemostasis on the extremities. While waiting for this to occur, we use the dermatome to harvest skin grafts from the patient's thighs. A dermatome can slice an extremely thin layer of skin, about .010 to .012 of an inch thick. This patient has plenty of donor sites, so we can use a sheet graft instead of a meshed skin graft. Meshed skin grafts can leave a poor cosmetic result and may provide less wound contraction. After we finish, I help transport the patient to the postanesthesia recovery unit and inform the family that the surgery was a success.

9:45 AM

The team is ready to begin our next case, a 42-year-old white female who was burned on the job. She is employed as an electrician and was burned when the wire she was working on ignited, resulting in a flashback of fire. She sustained partial-thickness burns to 12% TBSA on her face, right upper extremity, and bilateral lower extremities. She will undergo wound debridement and xenograft placement. Xenograft is a biological dressing, usually made from pig skin, that acts as a scab. It allows the wound to epithelialize, prevents the loss of moisture, and

"There are always new products, and we are excited to be involved with developing them."

protects against infection; 1 to 2 weeks later, it is removed. Usually patients with a xenograft have less pain and are able to go home with minimal wound care in a couple days.

11:00 AM

Once a week, the entire team meets for interdisciplinary rounds with representatives from adult and pediatric critical care, infectious diseases, nursing, pharmacy, neuropsychology, PT/OT, nutrition, social work, and chaplain services. We outline full treatment plans for all of our patients at this meeting. Every member of the team provides vital information on how well a patient is healing and what needs to be done prior to discharge. Once the meeting is over, the burn fellow and I take care of what needs to be ordered (such as consults, labs, medicine changes, etc.) and which patients need to be scheduled and prepared for surgery this week.

12:15 PM

I meet briefly with the research assistant who helps coordinate new and current studies being conducted at the hospital. She informs me that the Institutional Review Board has just approved our next study, which is on the use of stem cells to treat partial-thickness thermal burn wounds. The trial will compare spraying stem cells on burn wounds with applying normal saline to burn wounds. There is always something new, and we are excited to be involved with the development of a product that can improve patient care.

1:00 PM

I grab some lunch and head to the burn clinic. My first patient is a 3-year-old African American female who was getting her hair braided when she accidentally leaned back too far and hot water spilled down her back. Scald injuries are the most common type of burn injury in pediatric patients; luckily, this little girl only suffered a 4% TBSA partial-thickness injury. It's been 2 weeks since her burn. I remove the dressing to find that her burn wounds have fully epithelialized, and they are only slightly hypopigmented at this time. I instruct her mother to keep the patient out of direct sunlight, give them some moisturizing cream to apply to the healed area, and "medicate" the child with a sucker for being such a good patient today.

2:30 PM

After seeing several other patients, my next patient is a 23-year-old Hispanic male who suffered a 23% TBSA thermal burn wound approximately 12 months ago. He underwent excision and skin grafting to cover his wounds. He has been doing well at home and has been going to outpatient occupational therapy for a hypertrophic burn scar contracture across his right elbow that significantly limits his range of motion. On examination, I see a hyperpigmented, raised hypertrophied scar and find that his elbow extension is decreased by about 15 degrees. The patient states that he has difficulty at work when using the arm. I make an appointment for him for next week to be evaluated by my attending physician for possible surgery to revise the scar.

3:45 PM

My last patient today is a 56-year-old Hispanic male who was referred to the burn clinic for follow-up by another emergency department in the area. He was cooking with grease 2 days ago and suffered superficial burns to his bilateral lower extremities. I evaluate his injury and see that the burn is strictly superficial. I assure him that the wound is similar to a minor sunburn and should be better in about 1 week. He can use moisturizers or aloe vera cream to soothe the affected area.

4:45 PM

While finishing my clinic, I receive an urgent page to return to the burn ICU. The nurse informs me that the patient with the 75% TBSA burn has lost the pulses in his right lower extremity despite adequate fluid resuscitation. I alert the fellow and attending, who meet me at the bedside immediately. We attempt, unsuccessfully, to Doppler any pulses in the extremity. The leg is pale in appearance, and the nurse says she had to increase the patient's sedation to keep him comfortable. We decide that the best course of action is an emergent escharotomy of the leg to relieve the pressure that has accumulated secondary to the injury and swelling. The fellow and I use an electrocautery device to release the compartments of the leg along the lateral aspect of the extremity. We can see the leg opening up as the pressure is released with each cut of the device. On reassessment of the distal pulses, we find that they have returned and are adequate.

6:00 PM

This has been another long, eventful day, and I am ready to go home. I make my final rounds and write my postoperative assessments. I am told that sometime during the night the unit will receive a 31-year-old African American female from an outside hospital with suspected Stevens-Johnson syndrome after taking an antibiotic. According to the outside facility, she has approximately 45% TBSA open at this time. I know we will need to be ready for almost anything when she arrives. After finishing my remaining dictations, I head off to dinner with my girlfriend and some friends. JAAPA