THANK YOU.

For the selfless commitment to patient care that Worcester-area physicians demonstrate every day, but particularly in these difficult times, we thank you.
Everyday STRENGTH.

THANK YOU to our caregivers and community for all you’re doing, every day.

These are unprecedented times. But both our caregivers and our community are stepping up with unprecedented courage, commitment and compassion. We’re grateful beyond words for your strength and support.

Your support keeps our caregivers going! Drop them a word of encouragement at: umassmemorial.org/everydaystrength
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With patients dying without their loved ones by their side and our health care workers putting their lives on the line, it seems almost inappropriate to publish a “typical” issue of Worcester Medicine. As you probably know, our topics are selected four months before our publication date and our authors have put a lot of effort into their articles. Hence, we decided to publish this issue as scheduled. We plan to cover COVID-19: Lessons Learned in the near future.

In the first article, Dr. John Person gives a very personal history of dermatology in Worcester since the 1970s, when he started his practice in Worcester. He depicts the changes in the treatment of dermatological diseases, from having therapeutic x-ray machines in the office to today’s biologics.

Dr. Mary Maloney describes Mohs surgery and how it has changed over the years. This surgery excises a margin of tissue around a tumor and then the margin is examined to evaluate 100% of the margin, rather than samples of the margin. With this technique, the cure rate has increased to 99.9% for primary tumors and 95% for recurrent tumors. Less pain, high cure rates and tissue preservation are all benefits of Mohs surgery.

We are reminded of the importance of sunscreen by Dr. Riley McLean-Mandell. She reports that 19%-44% of patients with one skin cancer will go on to develop additional primary skin cancers. Her goal is to encourage everyone to use sunscreen and put herself out of a job.

Drs. Donece Hill, Paula Evans and Collen Massey describe the role of biologics in severe psoriasis. These drugs alter the immune system to prevent interactions with inflammatory cell pathways. Many of these drugs are marketed directly to the consumer, who doesn’t necessarily understand the side effects or the fact that many are not covered by insurance. There are options to help provide assistance, including patient assistance programs, copayment cards and free trial cards, sponsored by drug manufactures. The difficulty of Mohs surgery from the patient perspective is provided by Dr. Brianne Morin, who underwent surgery for basal cell cancer. She describes this as “the hardest and darkest time of her life” and feeling like a “monster.” She had seven surgeries after the initial Mohs surgery, and 18 months later, it is still very painful to write about it.

Stefanie Goodrich, PA-C, describes the pathogenesis, co-morbid conditions and old and new treatment options for psoriasis. She explains the new biologics and the areas that these medications target in the immune pathway.

The student perspective is a different this time. Instead of focusing on dermatology, Mina Botros, a first-year medical student and co-president of the Worcester Free Clinic Coalition, describes the students’ efforts to continue to care for the patients while the free medical programs are closed due to COVID-19. Under the supervision of faculty, they have set up a telehealth model to virtually meet with patients via Zoom.

In closing, I would encourage everyone to read our new President’s Message, two very important As I See It articles, Legal Consult, News from the Archives and Society Snippets.

And finally, I would like to thank Dr. Sahdev Passey for all of his support over the past two years, and I am looking forward to working with Dr. Spiro Spanakis.
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As I begin my term as president of the Worcester District Medical Society, amid the COVID-19 pandemic, I realize the true value of being a member of such a wonderful organization. There is so much to be thankful for, even in these turbulent times.

For those of you who have been longtime members of the society, this is a time to build on established relationships to learn how others are coping with the pandemic and share ideas on sustaining medical practices. Care model paradigms have completely shifted and are likely to remain affected in the long term. In collaboration with the Massachusetts Medical Society, we will continue to serve as a node of information for our members and advocate for protections of physicians as they serve the public in this time of crisis and other similar situations in the future. For example, we are supporting the passage of a bill that would provide liability protections for health care workers during the pandemic, providing civil immunity from liability for physicians practicing in unprecedented times under unprecedented practice conditions.

I look forward to the time when we can gather together again, share our experiences and support each other as colleagues and friends. These relationships and interactions form the core of the value of membership in organizations such as WDMS.

It is an honor to assume the role of president of WDMS from Dr. Sahdev Passey. On behalf of all of our members and staff, I want to thank him for his exemplary leadership during the past two years. Among the many accomplishments during his term, the 225th Anniversary Gala raised more than $25,000 to support our scholarship fund. Events like the Gala help medical students follow their true passions and enter the specialties that meet their callings as physicians, and nothing could be more important to a successful medical career.
A Look Back at Worcester Dermatology

John Person, MD

It is sobering, to say the least, when you reach a stage in life where your experiences are considered interesting history. So be it.

When I started my practice in the mid-1970s, along with Drs. Franks, Bishop, Markowitz and Rudnicka, it was said that Worcester was already oversupplied with dermatologists. There were five: Drs. McGoldrick, Halpern, Damiani, Aney and Nally. Counting advanced practitioners, there are more than 40 dermatologists in the area. Steve Franks and I are the only survivors from these years.

The University of Massachusetts Medical School was in its infancy in the 1970s, and some of the teaching and patient care was integrated into the local community. The section of the Dermatology Department of Medicine was briefly located at Saint Vincent Hospital, where Dr. Edelstein was both a geographic full-time pathologist and a board-certified dermatologist before the advent of dermatopathology. Now, dermatology at UMass is a full-fledged department with 15 faculty, nine residents and three fellows. The Fallon Clinic (now Reliant) was founded when internists were considered specialists, and we only started hiring “real” specialists in the 1970s, of which I was a part. We are now a section of nine, most part-time, which is some sort of trend, I think.

The electromagnetic spectrum in dermatology offices is inexorably moving onto longer wavelengths. In the early 1970s, 40% of dermatologists had therapeutic x-ray machines in their offices, not only to treat skin cancer but also for benign conditions, such as dyshidrosis and severe acne. These machines were of low power, so minimal dose fractionation was required. Radiotherapy was part of my residency training, and it was on my board exams, but by the time I had started my practice, it had been dropped like a hot potato. I recall trying to cajole Dr. McGoldrick into dusting off his old x-ray machine to treat a recalcitrant mosaic plantar wart in one of my patients, but he declined. Moving upstream, Grenz ray is a therapy midway between x-ray and ultraviolet and apparently very effective in palmoplantar dermatoses. To my knowledge, none of the dermatologists in the Worcester area ever had a unit. Ultraviolet light, specifically narrowband UVB, continues to be a significant treatment for psoriasis and has mostly been eclipsed by the more wavelength-specific name brand UVB. PUVA, utilizing oral 8-methoxypsoralen photoactivated by longwave ultraviolet light, came out in the early 1980s and pulsed laser in the late 1980s (followed over the next couple decades by a confusing number of other lasers utilizing selective photothermolysis). Now, monopolar radio frequency raves are being used for sagging skin. Do red and infrared light really dissolve fat? I am confused by all of this.

The changes in the treatment of psoriasis have been dramatic. Before the mid-1980s, the standard treatment for severe psoriasis was a two- to three-week inpatient treatment with crude coal tar and ultraviolet light known as the Goeckerman regimen, named after the Mayo Clinic dermatologist who pioneered the treatment in the 1920s. It worked very well. A hospital bed at Rochester Methodist Hospital, the inpatient dermatology facility at Mayo, cost $45 per day when I was in my training. We did the Goeckerman at Saint Vincent Hospital until the mid-1980s on the six-central Self Care Unit, an early attempt to control rising hospital costs. In 1982, the FDA-approved PUVA (now, because of its carcinogenicity, used mostly to treat mycosis fungoides), and in the late 1980s, the retinoid etretinate (and later, acitretin) and cyclosporine were added to methotrexate as oral agents in our arsenal. (Prior to methotrexate, Fowler’s solution, an arsenical, was used for psoriasis, but that was before my time. But I did once have a patient who asked me why he couldn’t get his prescription for Fowler’s solution refilled anywhere!) Today, of course, it is the age of biologics. We have several extremely effective, very safe and very expensive agents at our disposal. The TNF blockers are slowly being superseded by the IL-17 and selective IL-23 antagonists. (But I cannot help but mention a Mayo Clinic study done 11 years ago. They hospitalized 23 psoriasis patients who had failed to respond to anti-TNF agents and treated them with the Goeckerman regimen. Eighty-seven percent of the patients had at least an 80% improvement.)

As an illustration of these surges in cutaneous malignancies, when I started, there was only one Mohs surgeon in Massachusetts, Dr. Tolman at the Lahey clinic. As I recall, he only operated on Thursdays and Fridays. Healing was by secondary intention. High-SPF sunscreens had just come on the market. Now we have five, very busy, Mohs surgeons at UMass, and sunscreens have done nothing to stem the tide of melanoma and nonmelanoma skin cancer.

The treatment of some skin conditions, like acne, has not changed too dramatically in the past few decades. Many acne products have dropped by the wayside (sulfur, for example), but tetracycline antibiotics and topical retinoids, which came to market in 1972, remain mainstays. Megadoses of vitamin A (usually as Aquasol, a water-soluble, 50,000-unit vitamin A preparation) was in use in the 1960s, so the advent of isotretinoin in 1982 was not particularly surprising. What was surprising was that it proved curative for most patients!

The confusing rashes of syphilis were partly responsible for the creation of dermatology as a specialty in the 1920s. Up until the early 1970s, you were said to be board-certified in “Dermatology and Syphilology.” I wish I had one of those old class diplomas, but I missed by five years. The treatment of syphilis has not changed in almost 75 years. And the point could be made that the diagnosis of syphilis has backslid a little bit. No one in Worcester has been able to perform a dark field exam since Dr. Damiani retired 40 years ago.

(Disclaimer: All of the above is written from my increasing failing memory.)

John Person, MD, is a senior dermatologist at Reliant Medical Group.
Innovations In Mohs Surgery

Mary E. Maloney, MD

Mohs surgery was first developed by Dr. Frederick Mohs and reported in 1941.¹ His novel approach was to excise a margin of tissue around a tumor and then examine the margin in an en face method designed to evaluate 100% of the margin (rather than the bread loaf technique which samples the margin). He used a chemical fixative that was applied to the skin and left in place for 24 hours. The tumor and a narrow margin were then excised and processed immediately. In this way, tumor at the margin could be traced in subsequent stages, each stage requiring 24 hours of fixative application. It was a slow process. Drs. Stegman and Tromovich reported the development of the use of frozen sections on fresh tissue, shortening the procedure from days to hours.² With either the fixed or frozen technique, examining 100% of the excised margin increased cure rates to 99.9% for primary tumors and 95% for recurrent tumors, with basal cell carcinoma and squamous cell carcinoma being the tumors most commonly treated.³

So what is new in Mohs surgery is not the technique itself but rather the range of tumors treated with the technique. Melanoma has been treated either with immune stains to highlight tumor cells or with rush permanent fix fixed tissue examination of the complete margin. While the use of this technique is still gaining acceptance for invasive melanoma, it has dramatically cut the incidence of recurrence in in situ melanoma and is the treatment of choice for such tumors of the head and neck or digits, amelanotic melanoma in situ or recurrent melanoma in situ.⁴

There is a growing list of rarer tumors for which Mohs surgery has become the technique of choice.⁵ The list includes the rare soft tissue tumors that grow in continuity as well as adnexal tumors. The soft tissue tumors include dermatofibroma sarcoma protubers (DFSP), cutaneous leiomyosarcomas, atypical fibroxanthoma (AFX), aggressive digital papillary adenocarcinoma and localized dermal sarcoma. This soft tissue tumor may extend well beyond clinical evident margins and has up to a 30% recurrence rate with excision with wide margins. Because these tumors grow in continuity, the method of tissue examination with Mohs surgery allows the surgeon to trace thin strands of tumor through the subcutaneous tissue. This has dramatically reduced the recurrence rate to 3% or less. The cutaneous adnexal tumors similarly have high cure rates with Mohs surgery. This list includes eccrine carcinoma, apocrine carcinoma, porocarcinoma and sebaceous carcinomas. Merkel cell carcinoma and extramammary Paget’s disease both can have skip areas but have been successfully treated with Mohs surgery with close follow-up and adjuvant treatment with radiation therapy. In these cases, Mohs surgery is most useful where wide margins are difficult to obtain, i.e., the ear, nose, lips or other areas where tissue conservation is a must.

In 2012, appropriate use criteria were developed with input from all the dermatologic organizations involved with this body of knowledge.⁶ These criteria guide the use of Mohs surgery, preventing the overuse of this technique for tumors that can be treated with other modalities. The work has been validated and now is in widespread use.⁷ There is even an app to help calculate the score of a tumor and guide the physician to the appropriate treatment.

Pain management and the opioid crisis drove a new study on the recommendations for the use (and more importantly lack of use) of opioid pain relief after Mohs surgery and reconstruction.⁸ A panel worked through 87 different procedures (Mohs, excisions and surgical repairs), finding that only 21 of these might require post-operative opioids for pain control. And 20 of the 21 procedures that could require such pain relief would need only the equivalence of ten 5mg oxycodone tablets. This will hopefully reduce the number of prescriptions written and the number of pills dispensed, decreasing the number of unused opioids in medicine cabinets.

Technology is working hard to help identify margins before starting surgery. Confocal microscopy in the reflectance mode uses the differences in reflectance of various tissue types to visualize tumor margins by the captured return signal. This can then guide the initial margin, hopefully decreasing the number of stages required to clear the tumor. While intriguing and offering major advantages, this is still not commercially viable or available due to the expense of the equipment and the time requirements for high-quality images.⁹

Knowledge of the biology of cutaneous tumors continues to grow, and this knowledge base reaffirms the benefits of the Mohs surgery technique and its appropriate use for rare tumors and melanomas, as well as basal cell carcinoma and squamous cell carcinoma. At the same time, there has been the establishment of appropriate use criteria to prevent overuse, and an outlining of the rare times opioids are appropriate for pain management. The high cure rates and tissue preservation remain the benefits of the Mohs surgical technique.

Mary E. Maloney, MD, is a professor and chair of Dermatology and a Mohs surgeon at UMass Memorial Health Care.

References:


As a Mohs surgeon, my job is to remove skin cancer, check the margin to make sure it’s clear and repair the defect from removal, all in the same day under local anesthetic. Like many physicians who are happy in their roles, I feel like the luckiest woman in the world most days at work. My patients are awake, and we talk throughout their visit. I’m not rushed in our conversation, since it takes place while we perform the procedure. We chat about grandchildren, hobbies, jobs ... essentially, anything but politics is fair game. In this way, I get to know my patients relatively well, and I love seeing the same patients multiple times per year. However, for the sake of my current and future patients, I would love nothing more than to put myself out of a job.

My career is dependent on individuals getting skin cancer. This is happening at an alarming rate, with one in five Americans developing a skin malignancy at some point in their lives. Each year, there are 4.3 million basal cell carcinomas, 1 million squamous cell carcinomas and more than 196,000 new melanomas diagnosed, which cost our country $8 billion annually. The risk factors for skin cancer include being fair-skinned, having a family history of skin cancer, having high cumulative sun exposure and having a history of radiation, immunosuppression and more. It’s unfortunate that by the time an individual has developed skin cancer, they have enough of these risk factors that they are at high risk of developing additional skin cancers. In fact, between 19% and 44% of individuals with one skin cancer will go on to develop additional primary skin cancers. A day doesn’t go by that I’m not asked, “Why am I getting skin cancer now? I haven’t been out in the sun for years!”

My goal now, to help care for my patients, is to put myself out of a job as a skin cancer surgeon. I tell anyone who will listen about the importance of sun protection. For individuals who worry about the systemic absorption or environmental impact of chemical sunscreens, I recommend mineral sunscreens with titanium dioxide or zinc oxide. For those who dislike sunscreen, I espouse the benefit of sun-protective shirts, hats and sunglasses and avoiding peak hours of the sun (10 a.m.-2 p.m.). For everyone, I remind them that even if they have some sun damage on their skin, enacting healthy habits will reduce their risk of subsequent skin cancers. Patients who have a significant degree of background sun damage can be proactive, too. We have topical creams and treatments that can blast away sun damage to reduce the risk of developing skin cancer.

So as my parting words: Be of good cheer. We’re getting better at this, preventing the damage that leads you to my office. Some- day, hopefully, I’ll be out of a job (and not because of coronavirus!) and sitting on a beach somewhere because no one needs me. But you can be sure on that blessed day, I’ll be covered in sunscreen, huddled under an umbrella and wrapped in sun-protective clothes.

Data regarding skin cancers summarized from skincancer.org.

Riley McLean-Mandell, MD, is a board-certified dermatologist who serves as an assistant professor and full-time Mohs surgeon at UMass Memorial Medical Center. She is a proud graduate of UMass Medical School for undergraduate and graduate medical education. She is a member of the American Academy of Dermatology, the Women’s Dermatologic Society and the American College of Mohs Surgeons.
Psoriasis is a common skin condition that affects more than 8 million Americans. Plaque psoriasis is the most common form, occurring in about 90% of individuals diagnosed with psoriasis. While there is no true cause, it is believed to be associated with an individual's immune system and genetic composition. About one in three individuals with psoriasis report having a relative with the condition.

Plaque psoriasis is a chronic autoimmune condition in which skin cells build up and form scales and pruritic dry patches of various sizes. These patches are most commonly present on the scalp, knees, elbows and lower back. Other areas affected can include the face (eyebrows and upper forehead near the hairline), hands, feet, nails, genitals and skin folds (underarms and area under the breasts). The most common symptoms include raised inflamed patches on the skin, white-silver scales or plaques on patches, dry skin that can crack and bleed, soreness, itching and burning around patches, thick and pitted nails, and painful and swollen joints.

Since plaque psoriasis is an autoimmune condition, it can be exacerbated by triggers, including infections, stress, smoking, injury to skin, medications (such as lithium, beta blockers and chloroquine) and environmental factors. Individuals who do not currently have plaque psoriasis can be predisposed to the condition based on certain risk factors. These include family history, infections, stress, obesity and smoking. Complications can arise from plaque psoriasis such as psoriatic arthritis, cardiovascular disease, other autoimmune conditions, Parkinson's Disease and depression.

Plaque psoriasis can be classified as mild, moderate or severe, in which severity is dependent on the percentage of body surface that is affected. Severe psoriasis, for instance, is described as covering more than 10% of the body's surface. Individuals with a severe form can experience a poorer quality of life due to limitations in activities of daily living. These individuals usually have psoriasis that cannot adequately be controlled with topical treatments and need combination therapy, which can include phototherapy and systemic medications.

Currently, there is no cure for plaque psoriasis, but treatment is available to help manage symptoms and provide a better quality of life. Individuals begin with topical treatments, including corticosteroids, retinoids and vitamin D analogues. Individuals with moderate symptoms can progress to phototherapy, which utilizes ultraviolet or natural light to kill the overactive cells responsible for rapid cell growth. Biologic therapies have become popular in recent years and are beneficial in those with severe plaque psoriasis. Biologics alter the immune system to prevent interactions with inflammatory cell pathways. They interfere with TNF-alpha (a protein that promotes inflammation in the body), T cells (a type of white blood cell) and interleukins (cytokines involved in the development of psoriasis). (See Table I for a full list of biologics indicated for plaque psoriasis.)

Over the past few years, there has been an increase in systemic therapies that are FDA-approved for the treatment of plaque psoriasis. Per treatment guidelines, individuals who have tried topical or phototherapy regimens and have seen no benefit can try systemic therapy with biologics. Agents such as IL-17 Antagonists and IL-23 Antagonists have impacted therapy and improved skin clearance. Patients may inquire about these treatments due to the direct-to-consumer marketing that occurs with these newer biologics.

With the popularity of these new therapies advertised in many commercials, magazines and newspapers, patients find themselves more aware of their treatment options. Opportunities to find relief in newer agents that may offer significant improvement over previous therapies that were not as beneficial may be available.

Even though patients may benefit from these newer biologic therapies, the conundrum is whether the medications widely advertised are affordable. This leads to potential questions. Is direct-to-consumer marketing beneficial for patients? Does it do more harm than good? Is advertising to patients about the therapeutic benefits of the medications worth it if patients cannot access them? There is no one correct answer to this, but it is important to understand the impact of direct-to-consumer marketing and what can be done to educate patients about potential barriers.

Patients should be educated about available therapies, but they must also be aware that biologics are expensive. These biologic therapies may not be covered on an insurance plan or may have high copayment prices. Additionally, they may have coverage restrictions, including prior authorization or step-therapy.

For direct-to-consumer marketing to be effective, patients should be educated by members of the health care team about potential roadblocks in regard to cost and treatment progression. They should also be informed of the wide range of options that...
exist which can provide financial assistance for these biologics. These include patient assistance programs, copayment cards and free trial cards sponsored by drug manufacturers. Additionally, disease state foundations such as the Patient Access Network (PAN) Foundation may provide grants to assist with the out-of-pocket costs for medications utilized to treat plaque psoriasis. (See Table I for a list of available programs for biologics indicated for plaque psoriasis.)

It is important to recognize that there are many biologic therapies proven beneficial in patients suffering from severe plaque psoriasis. Finding the right treatment is key, and health care providers must take into account the severity of the condition, insurance specifics and patient affordability when weighing treatment options.

Donece Hill, PharmD, RPh, is the geriatric fellow at the MCPHS University Pharmacy Outreach Program in Worcester.

Paula Evans, PharmD, MS, BCGP, is the program director at the MCPHS University Pharmacy Outreach Program and associate professor of Pharmacy Practice at MCPHS University in Worcester. Colleen Massey, MS, is the director of operations at the MCPHS University Pharmacy Outreach Program and faculty associate of Pharmacy Practice at MCPHS University in Worcester.

The MCPHS University Pharmacy Outreach Program is a public-private partnership between the Executive Office of Elder Affairs and MCPHS University. The Pharmacy Outreach Program is a non-profit organization promoting medication adherence by providing help to Massachusetts residents with their medication-related needs. Staffed by case managers, pharmacists and students, the goal is to help people afford their medications and understand how to take their medications correctly. The program provides information that includes assistance with accessing affordable prescription drug programs through the Medicare Drug Benefit, as well as medication assistance options for uninsured or underinsured residents of Massachusetts. MCPHS University Pharmacy Outreach services are free of charge and offered by phone Monday–Friday at 1-866-633-1617 or through programs held at community sites across the state.

Table I: Biologic Therapies Indicated For Plaque Psoriasis

<table>
<thead>
<tr>
<th>Class</th>
<th>Name</th>
<th>Brand</th>
<th>Dosing</th>
<th>Estimated cash price**</th>
<th>Financial assistance options</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-17 Antagonists</td>
<td>Ilekizumab</td>
<td>Taltz®</td>
<td>Initial: 160 mg SQ once, followed by 80 mg at weeks 2, 4, 6, 8, 10, and 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maintenance: 80 mg SQ every 4 weeks</td>
<td>$6,828.00 for 80 mg/mL auto-injector or prefilled syringe</td>
<td>Lilly Cares Foundation Patient Assistance Program</td>
</tr>
<tr>
<td></td>
<td>Secukinumab</td>
<td>Cosentyx®</td>
<td>Initial: 300 mg SQ once weekly at weeks 0, 1, 2, 3, and 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maintenance: 150 or 300 mg SQ every 4 weeks</td>
<td>$3,324.86 for 150 mg/mL auto-injector or prefilled syringe</td>
<td>Novartis Patient Assistance Foundation</td>
</tr>
<tr>
<td></td>
<td>Brodalumab</td>
<td>Siliq™</td>
<td>Initial: 210 mg SQ at weeks 0, 1, and 2</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Maintenance: 210 mg SQ every 2 weeks</td>
<td>$1,484.00 for 210 mg/1.5 mL prefilled syringe</td>
<td>Siliq Solutions Patient Assistance Program</td>
</tr>
</tbody>
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**Price doubles for 300 mg/mL.
<table>
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<tr>
<th>Class</th>
<th>Name</th>
<th>Brand</th>
<th>Dosing</th>
<th>Estimated cash price**</th>
<th>Financial assistance options</th>
</tr>
</thead>
</table>
|       | Guselkumab | Tremfya® | **Initial:** 100 mg SQ at weeks 0 and 4  
**Maintenance:** 100 mg SQ every 8 weeks | $13,669.88 for 100 mg/mL pen-injector or prefilled syringe | Johnson & Johnson Patient Assistance Foundation Inc. Patient Assistance Program |
|       |            |        |                                                                        |                         | Janssen CarePath Savings Program |
|       |            |        |                                                                        |                         | PAN Foundation                |
|       | Risankumab | Skyrizi™ | **Initial:** Two consecutive SQ injections (75 mg each) for a total of 150 mg at weeks 0 and 4  
**Maintenance:** 150 mg SQ every 12 weeks | $19,009.80 for 75 mg/0.83 mL prefilled syringe kit | myAbbVie Assist Patient Assistance |
|       |            |        |                                                                        |                         | Skyrizi Complete Savings Card |
|       |            |        |                                                                        |                         | PAN Foundation                |
|       | Tildrakumab| Ilumya™ | **Initial:** 100 mg SQ at weeks 0 and 4  
**Maintenance:** 100 mg SQ every 12 weeks | $16,698.00 for 100 mg/mL prefilled syringe | Ilumya Support Patient Assistance Program |
|       |            |        |                                                                        |                         | Ilumya Copay Program          |
|       |            |        |                                                                        |                         | Ilumya Early Access Program   |
|       |            |        |                                                                        |                         | PAN Foundation                |
|       | Ustekinumab| Stelara®| **Initial:** ≤100 kg: 45 mg SQ at 0 and 4 weeks  
>100 kg: 90 mg SQ at weeks 0 and 4  
**Maintenance:** ≤100 kg: 45 mg SQ every 12 weeks  
>100 kg: 90 mg SQ every 12 weeks | $13,849.70 for 45 mg/0.5 mL prefilled syringe  
Price doubles for 90 mg/mL prefilled syringe | Johnson & Johnson Patient Assistance Foundation Inc. Patient Assistance Program |
|       |            |        |                                                                        |                         | Janssen CarePath Savings Program |
|       |            |        |                                                                        |                         | PAN Foundation                |

SQ – subcutaneous  
Prices are estimates based on reports from Lexicomp  
**Cash price may vary depending on specific dose  
†Dose exception: For patients ≤90 kg, an initial dose of 400 mg SQ at weeks 0, 2, and 4 followed by 200 mg every other week thereafter may be considered.
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<tr>
<th>Class</th>
<th>Name</th>
<th>Brand</th>
<th>Dosing</th>
<th>Estimated cash price**</th>
<th>Financial assistance options</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNF-alpha blockers</td>
<td>Etanercept</td>
<td>Enbrel®</td>
<td>Initial: 50 mg SQ twice weekly for 3 months OR 25 or 50 mg once weekly</td>
<td>$833.54 for 25 mg solution or 25 mg/mL prefilled syringe</td>
<td>Amgen Safety Net Foundation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maintenance: 50 mg SQ once weekly</td>
<td>Price doubles for 50 mg/mL auto-injector, cartridge, or prefilled syringe</td>
<td>Enbrel Co-pay Card</td>
</tr>
<tr>
<td></td>
<td>Adalimumab</td>
<td>Humira®</td>
<td>Initial: 80 mg SQ as a single dose</td>
<td>$3,344.18 for 40 mg/0.4 mL or 40 mg/0.8 mL pen-injector kit</td>
<td>myAbbVie Assist</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maintenance: 40 mg SQ every other week</td>
<td>Price doubles for 80 mg/0.8 mL pen-injector kit</td>
<td>Humira Complete Savings Card</td>
</tr>
<tr>
<td></td>
<td>Certolizumab</td>
<td>Pegol</td>
<td>Initial + Maintenance: † 400 mg SQ every other week</td>
<td>$5,556.42 for 200 mg/mL prefilled syringe</td>
<td>UCBCares Patient Assistance Program</td>
</tr>
<tr>
<td></td>
<td>Pegol</td>
<td>Cimzia®</td>
<td></td>
<td></td>
<td>Cimzia Co-pay Savings Card</td>
</tr>
</tbody>
</table>

References:
My story began in 2017 when I noticed a “pimple” on my nose that wouldn’t go away. It would go through different phases of bleeding and scabbing over, but it never quite healed. After the first month, I knew something wasn’t right about it. One year later, at the age of 38, my first visit to a dermatologist was to evaluate that spot on my nose, and he took a biopsy that day. A few days later, I received the call that it was basal cell carcinoma – the “good” skin cancer. I would need Mohs surgery, and he also recommended I contact a plastic surgeon because of the location on the tip of my nose. This would later turn out to be a very valuable piece of advice. When scheduling the Mohs surgery, the agent pushed back on my request for a plastics consult, but I was adamant.

During the consult, the plastic surgeon seemed optimistic as he talked about the different ways he could repair the hole depending on the severity. At a minimum, it sounded like I was going to have a pretty significant scar on my nose. Worst-case scenario, he briefly mentioned a forehead flap. I remember calling my husband, crying and unable to get the words out about what had to be done to my face. After the consult, I did some online research on Mohs surgery. Most cases didn’t seem too bad (a 98% cure rate), and the scars weren’t noticeable. It didn’t feel like a big deal – it was the “good” cancer.

Six weeks after the biopsy, I would finally have the Mohs surgery. It took three “rounds” to find clear margins. Each round consisted of very painful shots in the nose, cutting layers of tissue, bandages and waiting. I had a hole the size of a nickel on the side/tip of my nose. The plastic surgeon came in and immediately said that I would need forehead flap surgery the next morning. I didn’t really understand what a forehead flap surgery entailed until I went home and had to change the bandages. I almost passed out when I saw my face. It looked like an elephant trunk, with stitches, swelling and oozing fluid. A dozen stitches ran down from a deep hole in my forehead that was packed with gauze. The skin/tissue that originated from my forehead now was now twisted and stitched to the tip of my nose to provide blood supply for the next three weeks. I felt like a monster. There was dried blood in my hair for a week because I couldn’t shower or wet my face. The next few months would be the hardest and darkest time of my life.

The past 18 months have been a variety of emotions — fear, uncertainty, weakness, guilt, anger. As I thought about what I was going to write in this article, I kept getting very emotional, and I realized it is still very painful for me. The scars on my face are a daily reminder of this experience, and I’m just starting to view them as a symbol of strength. Looking back, I realize the courage and strength it took for me to get through those first several weeks. I have spent a lot of time reading other people’s stories, which has helped me to not feel alone anymore. By sharing my journey, I hope that I can help someone else who is going through this. I would encourage them not to wait to see a dermatologist. I let a lot of fear and procrastination prevent me from going to the dermatologist sooner. I am truly grateful that it wasn’t worse; however, I can’t help but wonder if the results would have been different if I had the spot checked out earlier.

Brianne Morin, PharmD, RPh, is a coordinator of pharmacy experiential education and assistant professor at MCPHS University-Worcester/Manchester. Brianne.Morin@mcphs.edu.
Stefanie Goodrich, PA-C

Psoriasis is a complicated but fairly common disease state. Practicing in dermatology, I see patients of all ages with this disease, some who are newly presenting with symptoms, and others who have come back to medicine seeking help after many years of frustration. Almost all of them ask the question, “What about all those commercials I see for psoriasis? Can those medicines help me?”

We have all seen those pharmaceutical commercials on the television. It’s a $3.7 billion dollar business, and it’s estimated that greater than 40% of that money is spent on advertising biologics in direct-to-consumer marketing. It’s an interesting strategy that can create mixed feelings amongst providers, however. If it results in bringing patients back to us, so their psoriasis and all of its associated co-morbidities can be addressed, then we would be wise to welcome that positive effect.

Psoriasis is a systemic, immunological, genetic disease manifesting in the skin and/or joints. It can affect all ages, genders, races and ethnicities, and most will present before age 35 with their first signs and symptoms. It is estimated that 7.5 million people in the United States are affected (2.1% of U.S. adults). The most common type of psoriasis is plaque psoriasis, seen in 80%-90% of patients. Psoriasis is characterized by erythematous scaling patches and plaques that are often distributed symmetrically. Up to 30% of patients will develop psoriatic arthritis, and about 20% are considered to have moderate to severe skin disease that will require systemic treatment.²

The lifelong impact of psoriasis, as with any chronic recurrent disease, is great. Psoriasis patients suffer from itch, pain, loss of sleep, effect on daily activities, job complications, sexual activism concerns and emotional turmoil. Those with severe psoriatic arthritis can have such extensive joint damage that it results in disability. However, it is not just a disease of the skin and/or joints. It is now believed that the disease’s systemic inflammation can affect other organ systems, putting psoriasis patients at risk for many co-morbid conditions.² (See Figure 1.)

Current treatment options for psoriasis range from topical therapy for mild disease to systemic therapy for extensive/joint disease. (See Figure 2.) Therapies are often used in combination for many patients, ideally to allow lower doses of individual agents, helping to minimize toxicity and improve efficacy. Access to therapy and life factors, such as childbearing potential, alcohol intake, concomitant conditions and response to prior therapies, must be considered. For many years, if a patient failed topical therapy, the next step was phototherapy, which while very effective, in many cases can be costly and inconvenient. The other systemic treatments that were available carried many risks, side effects and lifestyle restrictions. But with the introduction of biologics in 2003, our treatment algorithms were forever changed.²

So, when is a biologic medication considered the appropriate treatment option? The American Academy of Dermatology suggests taking a biologic agent if you have moderate to severe

<table>
<thead>
<tr>
<th>Topical Therapy</th>
<th>Phototherapy</th>
<th>Systematic Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthralin</td>
<td>Goeckerman (tar and UVB)</td>
<td>Retinoids</td>
</tr>
<tr>
<td>Corticosteroid creams, lotions, ointments, gels, foams, shampoos, patches &amp; solutions</td>
<td>Broad-band UVB</td>
<td>Methotrexate immune-modulating therapy</td>
</tr>
<tr>
<td>Tars</td>
<td>Narrow-band UVB</td>
<td>Other cytotoxic immune-modulating therapy</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>PUVA1</td>
<td>Cyclosporine</td>
</tr>
<tr>
<td>Retinoid gel and creams</td>
<td>Excimer laser</td>
<td>Biologics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IL-17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TNF blockers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IL-12/23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IL-23</td>
</tr>
<tr>
<td>Topical Immunomodulators</td>
<td></td>
<td>Phosphodiesterase 4 inhibitors</td>
</tr>
</tbody>
</table>

FIGURE 1: Comorbidities of Psoriasis³

FIGURE 2: Psoriasis Treatment Options The copyright to this material is owned by the National Psoriasis Foundation and this material is reprinted courtesy of the National Psoriasis Foundation.²
psoriasis that hasn’t improved using more traditional systemic agents or you can’t tolerate those treatments because of side effects. They fall into a few different categories, targeting different immunological faults underlying the disease. (See Figure 3.) This class of drugs carries its own set of contraindications, risks, potential side effects and access issues, but overall, it has been a positive addition to our treatment bag.

Tumor necrosis factor-alpha (TNF-alpha) inhibitors Cimzia (certolizumab pegol), Enbrel (etanercept), Humira (adalimumab), Remicade (infliximab), Simponi (golimumab) and Simponi Aria (golimumab) are drugs that block TNF-alpha. In psoriasis and psoriatic arthritis, there is excess production of TNF-alpha in the skin or joints, which leads to the rapid growth of skin cells and/or damage to joint tissue. Blocking TNF-alpha production helps stop the inflammatory cycle of psoriatic disease. Interleukin 12 and 23 (IL-12/23) inhibitors Stelara (ustekinumab) works by selectively targeting the proteins, or cytokines, interleukin 12 (IL-12) and interleukin 23 (IL-23). Interleukins 12/23 are associated with psoriatic inflammation. Interleukin 17 (IL-17) inhibitors Cosentyx (secukinumab) and Taltz (ixekizumab) block a cytokine called interleukin 17 (IL-17), which is involved in inflammatory and immune responses. Siliq (brodalumab) blocks the receptor of this cytokine. There are elevated levels of IL-17 in psoriatic plaques. By interfering with IL-17 signaling, Cosentyx, Siliq and Taltz interrupt the inflammatory cycle of psoriasis. T-cell inhibitor Orencia (abatacept) targets T-cells in the immune system. T-cells are a type of white blood cell that is involved in the inflammation in psoriasis and psoriatic disease. Orencia inhibits T-cells from becoming activated to reduce inflammation. Interleukin 23 (IL-23) inhibitors Ilumya, Skyrizi and Tremfya work to reduce psoriatic symptoms and slow disease progression. Most of these drugs are administered either by injection or IV infusion. In most cases, patients are trained to self-inject at home. A patient should not be considered a candidate for a biologic if they are severely immunosuppressed or have an active infection. Pre-biologic screening includes evaluation for demyelinating disorders, congestive heart failure and malignancy and testing for tuberculosis and other infectious diseases. While on treatment, patients are instructed to check with their provider regarding ability to receive live vaccines and what to do if they feel sick or have an infection. Depending on which systemic drug a patient is on, its effect on the overall immune system can vary. The newer, more targeted drugs have a lesser overall immunosuppressive effect, resulting in decreased risk of infection or malignancy. This risk of infection, while always a concern, became a hot topic very quickly with the recent COVID-19 outbreak. (See Figure 4.) How one decides which biologic to start with can vary amongst providers and involves determining which symptoms are most prevalent, age, co-morbid conditions and insurance access. (See Figure 5.)

We in dermatology feel lucky to have seen so many new treatment options in recent years for psoriasis/psoriatic arthritis. With these drugs, for the first time ever, some patients will see complete clearance of their skin disease. In addition to the above-mentioned biologics, the Janus Kinase (JAK) Inhibitors have shown promise for the disease. Xeljanz, (Tofacitinib) was approved in December 2017 for psoriatic arthritis, and an oral PDE4 inhibitor Otezla (Apremilast) was approved in 2014 and is currently widely used. In most cases, patients will stay on these
systemic drugs for long-term management of their disease, so it has been wonderful to have so many safer options available to them. There are more biologics in the pipeline, and it is expected that their safety profiles will continue to be favorable. I am sure you will see their commercials as well, and I hope my potential patients will see them, too. For then, instead of seeing their disease as hopeless, they may come back to us seeking improved quality of life, something we are now able to deliver.

The National Psoriasis Foundation is a wonderful resource for both providers and people living with psoriasis/psoriatic arthritis. Please visit www.psoriasis.org for more information.

Stefanie Goodrich, PA-C, is a dermatology physician assistant at Worcester Dermatology Associates. She has been practicing in the specialty of dermatology for close to 20 years. sgoodrich@worcesterderm.com.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Biologic</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSA</td>
<td>TNF-alpha blockers or IL-17 blockers</td>
</tr>
<tr>
<td>Obesity</td>
<td>infliximab (Remicade, Janssen), ustekinumab (both use weight-based dosing) or IL-17 or IL-23 blockers</td>
</tr>
<tr>
<td>Cardiac disease</td>
<td>TNF-alpha inhibitors (exempt in New York Heart Association class III or IV congestive heart failure)</td>
</tr>
<tr>
<td>Multiple sclerosis</td>
<td>ustekinumab, IL-17 inhibitors; avoid TNF blockers</td>
</tr>
<tr>
<td>Lupus erythematosus</td>
<td>ustekinumab</td>
</tr>
<tr>
<td>Pregnant or childbearing age female</td>
<td>certolizumab (Cimzia, UCB) (does not cross the placental barrier) or etanercept (Enbrel, Amgen) (minimal placental transfer)</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>Etanercept is approved in patients down to age six years. Children actually like ustekinumab (off-label under age 12), says Dr. Lebwohl, because it's given less frequently. Adalimumab (Humera, AbbVie) has pediatric data, he says, but is not FDA-approved for children.</td>
</tr>
</tbody>
</table>

### FIGURE 4:Immunosuppressive Effect of Systemic Therapies

<table>
<thead>
<tr>
<th>Name</th>
<th>Therapies</th>
<th>Infectious Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A</td>
<td>Secukinumab (Cosentyx)</td>
<td>No effect on viral immunity</td>
</tr>
<tr>
<td></td>
<td>Ixekizumab (Taltz)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brodalumab (Siliq)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guselkumab (Tremfya)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tildrakizumab-asmn (Ilumya)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rizankizumab-rraa (Skyrizi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dupilumab (Dupixent)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ustekinumab (Stelara)</td>
<td>Theoretical effect on Ts/1/viral immunity, but no actual increased evidence of viral infections while on drug</td>
</tr>
<tr>
<td></td>
<td>Apremilast (Otezla)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Etanercept (Enbrel)</td>
<td>Slight increased risk of infections in general, including viral infections</td>
</tr>
<tr>
<td></td>
<td>Infliximab (Remicade)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adalimumab (Humira)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certolizumab pegol (Cimzia)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tofacitinib (Xeljanz)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baricitinib (Olumiant)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Upadacitinib (Rinvoq)</td>
<td></td>
</tr>
<tr>
<td>Group D</td>
<td>Prednisone</td>
<td>More broad-based immunosuppression, which would increase risk of infections, including viral infections</td>
</tr>
<tr>
<td></td>
<td>Methotrexate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cyclosporine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Azathioprine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MMycophenylate mofitil</td>
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</tbody>
</table>

a) Data in this table is based on Dr. Blauvelt’s clinical experience and review of the literature.

### FIGURE 5: Recommendations Regarding Psoriasis Comorbidities and Special Populations

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</tr>
</tbody>
</table>

References:


As many of you know, the Worcester Free Clinic Coalition has closed its physical doors to in-person visits in an effort to minimize the spread of COVID-19 amidst the current pandemic. This was not an easy decision. Our medical directors discussed at length the benefits and potential dangers of continuing to see patients in our clinics at this time. Though we continued to care for those that we could for as long as was deemed safe, in the end, we acknowledged that it was in the best interest of our physicians, staff, students and communities to focus on the prevention of spread of the coronavirus through appropriate social distancing practices. This, of course, meant that we could no longer see patients in our clinics.

In the time since we came to that conclusion, we have given considerable thought to our vulnerable patients’ welfare. Though much of our medical infrastructure is, and should be, focused on caring for the population being affected by COVID-19, it is important for us all to understand that acute and chronic medical needs continue to affect our patients during this time. Much like any other time, those who are underinsured or uninsured continue to struggle to access basic medical, let alone personal, needs. If anything, this time has exacerbated many of those needs. People still need insulin management and hypertension medications. Amidst the rising uncertainties, patients need to know that their concerns are not falling on deaf ears, that they have not been forgotten by the medical community.

Together, we have risen to the occasion to continue providing care for our patients throughout these tumultuous times. The UMass medical students, in cooperation with the free clinic medical directors and university administration, have set up a telehealth model that is currently up and running. Rather than holding in-person visits, we invite any and all patients in need of care to join us virtually via Zoom or over the phone to voice their medical concerns. We are available during our normal clinic hours – 6-8 p.m. Monday–Thursday. A team of students accompanied by a physician preceptor takes a history, determines an appropriate plan of action and puts the patient’s medical care in motion. To date, we have been able to advise on acute and chronic medical concerns, medication refills and health screenings (in place of physicals). It is clear from our patients’ responses just how appreciative they are that these services are still being provided. One such patient wrote to us saying:

“Thank you so much for being here for all the people that society doesn’t want to acknowledge, [you’re] saving lives and helping families. Your service is deeply appreciated. I pray for all of you.”

There are other tangible benefits to our work as well. Whether we like it or not, telehealth is a growing part of the future of medical care. It’s important to acknowledge that it has its place, especially in times like these. There will certainly be cases in the future, unfortunately, during which we won’t be able to care for our patients in person. Hopefully, these will be few and far between. The UMass administration is bracing for that future with third-year rotations to train students on such occasions in an effort to improve the service with time. Our efforts with the virtual free clinics provide an opportunity for both current physicians and medical students in their first and second years to interact with telehealth in a manner that was previously unavailable to them. We have even had long-standing capstone projects come out of this initiative. In addition to its core purpose, it offers a positive learning environment for all who are involved.

Many students and physicians who are otherwise removed from patient care in some capacity due to the pandemic have been asking how they can help during these times, how they can make a positive impact on the changing circumstances that have overwhelmed our lives and inboxes. This is one such way. Without access to the free clinics, many of our underinsured and uninsured patients rely on the emergency medical system to address their concerns. Of course, if it is determined that one of our patients needs to be seen and tested, we will triage them appropriately. Many acute and chronic needs, however, can be assessed and cared for through our service. With many of these departments facing an overwhelming surge in patients due to the surrounding pandemic, it is vital that we minimize the burden on them while also providing care for those who need it.

Volunteering with the free clinics is a safe way to care for our community, learn and teach one another during a period in which our time and knowledge are among our most valuable assets. In order to keep this initiative moving, we need your help! Our shifts, as was previously the case, run from 6-8 p.m. Monday–Thursday, and volunteers need not sign up for more shifts than they are comfortable with in a given week. Physicians who are interested in volunteering their time and expertise to further our efforts are encouraged to email me for further information.

In these ever-changing times, remember to take care of yourselves, your loved ones and your neighbors.

*Mina Botros* is an MD candidate in the Class of 2023 at the University of Massachusetts Medical School and co-president of the Worcester Free Clinic Coalition. mina.botros@umassmed.edu.
Kathleen Gagne

When I give tours of Mechanics Hall to visitors, a point of pride I always convey is that the Worcester District Medical Society has had its offices in the Hall since we reopened following the 1970s restoration. That makes WDMS one of the longest supporters of our historic non-profit. I also make it a point to say that WDMS is Worcester’s oldest non-profit organization. To me, WDMS is a natural fit with our mission – to ensure the community is enriched by the activities taking place in the Hall. WDMS also reflects the founding philosophies of the 19th-century Worcester County Mechanics Association: to encourage Worcester to be at the leading edge of technological and scientific advancements and to encourage cultural and social consciousness. WDMS represents all of those attributes, and it is a community of colleagues meant to support one another. That is community in its truest sense.

Martha Wright very graciously invited me to update the WDMS members about the recent roof damage to the building and the consequences of shutting down Mechanics Hall owing to the COVID-19 precautionary guidelines.

As is happening in nearly every facet of the city’s life, the economic effects of the COVID-19 shutdown are debilitating to Mechanics Hall. Spring is generally a time of hope and happiness in the Hall. The community comes to celebrate. We host proms and weddings, graduations and awards nights, annual meetings and employee recognition events, and end of season cultural activities, including youth recitals and the Worcester Chorus season finale. This spring, the Salisbury Singers were set to present Mendelssohn’s Elijah and bid farewell to Michelle Graveline, their conductor for 30-plus years. Just as winter turns to spring, this time in Mechanics Hall celebrates comings and goings.

But not this year.

Spring rental income is a full one-third of our annual earned income, and losing it has forced us to question how we will hold on – to staff and to general operations and to free public programming.

To make matters worse, the intense wind and rainstorm we experienced on April 13 caused major damage to our copper roof, the underlayment and to the roof insulation. Our response was swift only because a good-hearted and alert worker on the 9th floor of the Foster Street MCPHS building saw what was happening from his birds-eye view and called me. Our own team and the Barnard Roofing Company team were on site within 30 minutes. In the middle of the storm, roofers dealt with a temporary fix to the exterior, and our team mitigated the water damage to the interior by corralling pouring rainwater into buckets they hauled up and down from the labyrinthian attic. There is cosmetic damage to the Great Hall.

It took a caring neighbor and a dedicated team of people to stop a major problem.

I know that the members of the WDMS are on the front lines of the health crisis, whether directly dealing with patients or with the thousands of other necessary medical and administrative needs caused by the coronavirus. All of this on top of the daily medical needs – urgent or not—that you devote your lives to fixing.

I know that serving the fragile among us and the very sick is of the utmost importance. It is paramount to support our health care workers and make sure they have what they need to protect lives. These needs are real, and the vulnerability is great. We must take care of them.

Yet, I still come to you for support of our Mechanics Hall.

At the very same time we are dealing with a physical health crisis, we must also care for our human spirit, and that is what Mechanics Hall does so well.

It provides the intangible things that feed our souls: Joy. Beauty. Pride. And the tangibles: Music. Culture. Community. It is testament of human creativity and innovation and craftsmanship. It is our community space. It is a masterpiece of architecture and of sound. And it is ours; it has fallen upon us now to navigate this difficult time and ensure that Mechanics Hall survives.

The Hall cannot fulfill its purpose without us, all of us. Mechanics Hall is only meaningful when it is being used and enjoyed. Otherwise, it is merely a ghost of things past.

The Hall needs you right now.

The roof is seriously damaged. Our clients are sheltering at home, the music has been silenced, and joyous occasions are being celebrated privately or not at all. Along with this horrific threat to our health came an abrupt stoppage of income, which has dramatically affected our operations and will have long-last-
A Rare Dermatological Case

About 12 years ago, a traveling engineer called at my office with a complaint of persistent skin affliction extending from his ankles of both legs and up his hips almost up to his umbilicus. Though of varying intensity, it had been present constantly for nearly four years. At that time, it was particularly severe and accompanied by such marked edema as almost to preclude walking. It was a diffuse dermatitis with a general inflammatory and congestive reaction. He had vainly sought relief from several dermatologists and from several hospitals in the east and in the Midwest, to which he had taken refuge during periods of marked exacerbation. There seem to be no possible clue to the cause, which, however, appeared to be local rather than general because of its distribution. During the prescribed rest in bed for about 10 days, the swelling subsided and the lesions improved considerably. Even then, I could think of no ideological factor. As he could not remain under observation any longer, all I could do was to explain my conception of the nature of his affliction and advise him to be alert for anything attending possible remission.

Though I did not see him personally again, I learned subsequently that, about one year after my examination, he had discovered the cause himself. It seems that before the depression of the early ’30s, he had worn expensive shoes. At that time, he changed to an inexpensive make, which proved so satisfactory that he had continued to wear them. Later, unable to procure the brand while located in Detroit, he bought a different make. About two weeks after having discarded the old shoes, he observed a striking improvement in his dermatitis. After he fully recovered, he experimentally resumed wearing his old shoes. Promptly, his disease recurred. Steadily, as soon as he returned to the new footgear, it disappeared.

From his investigation, he discovered that the leather of which the cheap ones were made was tanned in half the usual time by the use of a special chemical, a phenol derivative. To that substance, he happened to be so sensitive that simply pulling his trousers over his shoes contaminated them sufficiently to poison his skin over the whole area with which they came in contact. As the brand of shoes involved was one of the most popular and no such case has ever come to my notice, one can realize the uniqueness of his idiosyncrasy.

Your tax-deductible donation to the Mechanics Hall Bridge the Gap Fund will allow us to meet our payroll so that we don’t lose our staff. The Hall team is talented, strong, creative and service-minded. I don’t want to lose even one of them. We have been successful in securing Payroll Protection funds from the Small Business Administration, but as tremendously helpful as that is, it will last only eight weeks. Your gift will help us bridge the gap to “the other side.” It will pay our bills to vendors who also need support. It will help to safeguard and sustain our irreplaceable Mechanics Hall. It will help to ensure that WDMS has a home in the Hall for many years to come.

When all is well, we will celebrate. Guaranteed. We cannot wait to welcome you back!

In the meantime, be well and strong. Take care of you and yours.

Kathleen M. Gagne
Executive Director

Donations can be made online at www.mechanicshall.org or by mail. Mechanics Hall Bridge the Gap Fund, 321 Main Street, Worcester, MA 01608

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October 1949; Vol. 14, #2, p14

YE OLDE G. P.
Fighting The Enemy Unseen

Mike P. Hirsh, MD

The last few months has shown a progressive revelation of what life in a deadly pandemic is like. Social distancing, isolation, self-quarantining and shelter-in-place orders are now common vernacular for us all. In the hospitals, there is fit testing, donning and doffing, PAPR device training and reassignment of people into new roles. Idle surgeons have become ICU docs; newly graduated medical students are now interns on the frontlines; and hand sanitizers and personal protective equipment (PPE) is at a premium.

But through it all, our medical community – our community as a whole – has responded beautifully. The docs, nurses and allied health professionals get the highest grades for taking on new responsibilities and new challenges to their own health unflinchingly. The public has practiced the physical distancing requested and yet has maintained social connectivity in new and innovative ways. Our med school has taught third-year students about emergency response and disaster management. The first- and second-year students have signed up to be elder buddies and kid storytellers/tutors.

So the pandemic rages on. The disease rolls and death toll continue to mount. Our sanity and our very way of life are being tested. So far, I can honestly say as I morph from my role as the City of Worcester’s pandemic public information officer to my role as a pediatric surgeon and back to my role in the medical school as the assistant vice provost for Health and Wellness Promotion, I have seen our community’s response from all sides.

I am in awe.

We will not fail for lack of effort, brainpower, energy or commitment.

And I truly believe that we will come out of this a more connected and engaged community – more appreciative of the vulnerability of our community of color, of the homeless, of the elderly and of our health system in general. More grateful for what we have going for us as a society and as a nation.

The famous economist, Leon C. Megginson, once said, “It is not the strongest or the most intelligent who will survive but those who can best manage change.” I think Worcester has shown that adaptability. We will persevere and come out stronger on the other side.

Mike P. Hirsh, MD, is the assistant vice provost for Health and Wellness and Health Promotion at the University of Massachusetts Medical School.

Recommended websites for up-to-date information:

CDC: https://www.cdc.gov/
Massachusetts Department of Public Health: https://www.mass.gov/orgs/department-of-public-health
Massachusetts Department of Public Health: www.worcesterma.gov/coronavirus
Prescription CPR

Joseph Sabato Jr, MD FCEP

Sudden cardiac arrest is one of the most frequent causes of death. Each individual event would appear to be an act of chance or bad luck. However, when you look at cardiac arrest victims as a group, there are clear risk factors that can be used to proactively identify the vast majority of those at risk. Identifying those at risk allows interventions to modify the risk factors as well as provide other opportunities to prevent death. Each rare victim currently saved from death from sudden cardiac arrest almost seems a miracle. But there are also clear factors beyond luck that contribute to survival after onset of the cardiac arrest. Worcester has tremendous opportunity to improve our survival.

Two years ago, the American Journal of Medicine published an article demonstrating: “A Simple Community–Based Risk Prediction Score for Sudden Cardiac Death.”1 Risk factors identified were age, sex, total cholesterol, lipid-lowering medication use, hypertension medication use, systolic blood pressure, diastolic blood pressure, smoking status, diabetes mellitus and body mass index. The risk score was validated versus the Framingham study population. This is in addition to the known risk factors of sudden cardiac arrest of congestive heart failure, previous myocardial infarction, family history of sudden death, congenital heart disease, cardiomyopathies and certain genetic factors.2 This provides a clinical tool to proactively identify the population at risk for sudden cardiac arrest.

In 1986, UMass Dr. Robert Goldberg identified the opportunity to train family and friends of the then-known population at high risk for sudden cardiac arrest in CPR.3 Most sudden cardiac arrests occur at home (70%) and are witnessed by friends and family.4 Yet only 30% of greater Worcester victims receive CPR before EMS arrives.5 Without early bystander CPR, the victim is not likely to be resuscitated by EMS on arrival. This is reflected in only 10% of local victims being found in ventricular fibrillation when EMS arrives versus nationally 26% being found in ventricular fibrillation. Ventricular fibrillation is a rhythm that is much more likely to respond to treatment than asystole or pulseless electrical activity (PEA).6 So early bystander CPR by witnesses makes a huge difference in survival in other communities.7

At UMass, we began a unique program to offer CPR and defibrillator (AED) training for chest pain patients, their family and friends in our Clinical Decision Unit after they had completed their stress testing. We created a 10-minute training program that gives people chance to practice interacting with the 911 system and have hands-on practice in CPR and how to use a defibrillator. We performed an assessment of the effectiveness of the training to give people the key skills in comparison with other studies of training. We were able to prove that this program was as effective as other, longer, more complicated programs. The program is guided by using a teaching poster, and instructors are mentored and supported until they are comfortable teaching on their own. When they have finished their CPR program, a second poster is exposed, and the defibrillator trainer brought to the manikin. The trainees are then guided through the steps of placing the defibrillator pads on and turning the defibrillator on and then stopping CPR and not touching the patient while the defibrillator analyzes the rhythm. They charge the defibrillator and clear the area around the patient and administer the shock and re-start CPR. All in 10 minutes. Students are given a postcard-sized reproduction of the posters to follow along with the training as the trainer leads them as a 911 operator would advise over the phone. They are advised that if they are in a business or public place to ask if there is a defibrillator nearby and, if possible, send someone for the defibrillator. Then they are guided in having someone take over CPR for them if available. The Good Samaritan Law, offering protection for their lifesaving actions, is reviewed, as well as the impact that their CPR effort may have on helping to keep their friend or family member alive until other help arrives.

They leave knowing CPR and how to use a defibrillator that will help them should they face this situation. With the help of the 911 operators on the phone, we can dramatically improve the chance of survival.8 We as physicians have a tremendous opportunity to change the chances of survival for our patients and our community.

Enter Prescription CPR: Talking about this program with my medical school classmate and friend, internist Dr. Andy Miller, led him to mention that he could use the electronic medical record to risk stratify the patients in his practice for referral for CPR/AED training. We began partnering with fire and EMS agencies, medical students, churches, community agencies and organizations and independent volunteers to become training sites and trainers.

Ironically, in the city with a heart in the center of the city symbol, hearts on many of the street signs and major medical centers anchoring the health care of the region, survival from sudden cardiac arrest is one-third of the national average at 3%. However, physicians have a unique and simple opportunity to change that dismal result into a much more positive outcome. Now is the time. Thank you.

Joseph Sabato, Jr., MD, FACEP, is an associate professor in the Department of Emergency Medicine at the University of Massachusetts Medical Center. Joseph.Sabato@UMassmedical.org.
References:

4. Out-of-Hospital Cardiac Arrest Surveillance---Cardiac Arrest Registry to Enhance Survival (CARES), United States, October 1, 2005-December 31, 2010; Surveillance Summaries July 29, 2011
5. Worcester EMS Data
6. Circulation RESEARCH 2015 above

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New Covid-19 CMS Regulations: Harbingers Of The New Normal?

On April 6, 2020, the Centers for Medicare and Medicaid Services issued an “Interim Final Rule” that is in many ways extraordinary. With very wide-ranging provisions spanning 16 different parts of Title 42 of the Code of Federal Regulations, CMS’s new rule dispenses with normal notice and comment rulemaking requirements in light of the current pandemic. Thus, this April 6 rule is effective March 31 and relates back to services rendered beginning March 1. In many cases, the new rule creates greater flexibility and reduced regulatory burdens for health care providers for the duration of the COVID-19 Public Health Emergency. As may be possible in other industries and professions now experiencing a “new normal” of distributed workforces and business processes, will the health care sector come to value these new flexibilities and freedoms as part of a post-pandemic regulatory environment?

Many of CMS’s new initiatives under the IFR are not mandated by the CARES Act but are focused on the Medicare program and consequent to the Secretary of Health and Human Services determination on January 31, 2020, that a public health emergency exists nationwide. CMS’s overall response to that emergency is to maximize the availability of existing health care resources to fight the pandemic, whether human or technical. A selection of the IFR’s new pandemic rules is described below.

For example, beginning March 1, a broad array of new services may be provided through telehealth and various frequency requirements are being waived. The new telehealth services include nursing facility initial and discharge day visits; hospital admission and discharge day valuations and management visits; rest home, home health and intensive care evaluation and management visits; group psychotherapy; and physical and occupational therapy evaluations and re-evaluations. Likewise, some frequency requirements are lifted during the PHE: the limit on hospital care service through telehealth only once every three days and on nursing facility telehealth services only once every 30 days.

The provision of telehealth services only through “interactive telecommunications systems” is also being relaxed. The new rule clarifies that the exclusion of “smart” telephones from this category of systems is superseded. Also, with respect to opioid treatment, therapy and counseling can now be provided over the phone without the necessity of providing interactive two-way audio-visual communications. The Department of Health and Human Services’ Office of the Inspector General is waiving sanctions against providers for routinely waiving or reducing patient cost-sharing obligations for telehealth services. Finally, the HHS Office for Civil Rights, charged with enforcing the HIPAA data privacy and security rules, is exercising its enforcement discretion to waive penalties for HIPAA violations against providers who serve patients in good faith through such technologies as FaceTime and Skype.

Face-to-face diagnostic testing during a pandemic increases both the risk of infection of health care providers and the costs of protecting those providers from infection unless those services can be provided remotely. The new rule includes a significantly increased collection and associated travel allowance to clinical laboratories for specimen collection services for the duration of the pandemic. Likewise, remote physiological monitoring (such as blood pressure, weight, pulse oximetry and respiratory flow rate) is now payable under the clinical laboratory fee schedule for new, not just established, patients.

The IFR also addresses the increased demand on the physician workforce during the pandemic. Those increased demands may mean that a physician is not available to review a plan of care every 60 days for a home health Medicaid beneficiary. Thus, during the PHE, other types of “licensed practitioner of the healing arts acting within the scope of practice authorized under State law,” such as NPs and PAs, may write and review such plans.

Incident-to services under a physician’s direct supervision normally require the physician to be in the same location as the patient. Now, that supervision may be provided by “real-time interactive audio and video technology,” if indicated, to reduce exposure risks to the patient or provider. The rules do not establish the precise outlines of what technology is acceptable, however, and CMS is seeking comments on erecting “guardrails” regarding this change, which pertains not just to physician office services but also pulmonary, cardiac and intensive cardiac rehabilitation services.

Finally, the new rule contains provisions designed to ease the entry of residents into the pandemic fight. Normally, a resident counts for purposes of Indirect Medical Education and Direct Graduate Medical Education reimbursement purposes only if...
they are providing patient care services within the scope of the approved residency program in a hospital, a doctor’s office or a clinic. Now, such residents under appropriate supervision may be counted for IME and DGME purposes if they are performing patient care duties within the scope of the program while in the resident’s home or in a patient’s home. Like the new rules pertaining to incident-to services, direct teaching physician supervision of residents (which usually requires the teaching physician to be present during the key portion of the service performed by the resident) may now be through the teaching physician’s “presence” via interactive telecommunications technology. This new flexibility does not extend to high-risk surgical, interventional or other complex procedures, endoscopic procedures or anesthesia services.

COVID-19 is forcing many businesses and professionals to re-think how they do work, and some may determine that what is now imposed on them by temporary circumstance should be adopted permanently as best practice. On a personal level, we may all get not only used to, but happy with, less-congested roads, less-polluted skies and more time with our loved ones. A number of the new initiatives summarized above may likewise become a popular part of a new way of providing health care. Practitioners may want to consider and weigh in on what innovations found in this IFR should be part of the “new normal.” As we emerge from this pandemic, one question posed by these new CMS regulations is whether we will come to see good, time-limited, pandemic policy as sound, permanent public policy.

Peter J. Martin, Esquire, is a partner at the Worcester office of Bowditch & Dewey, LLP, his practice concentrating on health care and nonprofit law.
UMass Medical School cell biologist Thoru Pederson elected to American Academy of Arts & Sciences

Craig S. Semon
Telegram & Gazette Staff
Posted Apr 29, 2020

UMass Medical School cell biologist Thoru Pederson has been elected to this year’s class of the American Academy of Arts and Sciences.

“It is a great honor to be recognized by one’s guild — in my case the profession of cell biology,” Pederson said. “But that this venerable institution is one of both the arts and the sciences adds so much to my sense of profound privilege in having been elected.”

Pederson is the Vitold Arnett professor of cell biology, associate vice chancellor for research and professor of biochemistry and molecular pharmacology at UMass.

A longtime scientist at the Worcester Foundation for Biomedical Sciences, Pederson served as the foundation’s president from 1985 until its merger with UMass in 1997.

Pederson’s election to the academy recognizes his career of research on the functional organization of the cell nucleus, including specific associations between RNAs and proteins to form machines that underlie gene readout. He has also made transformative discoveries about the nucleolus.

Most recently Pederson and collaborators have designed CRISPR-based methods to probe the fine-scale movements of specific genomic loci.

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Pre-Concert Reception
The Worcester District Medical Society was very proud to collaborate with the Massachusetts Medical Society Alliance (MMSA) and Legacy Financial Advisors, Inc. to thank our local caregivers for their tireless and selfless work.

On Mother’s Day weekend, 200 meals were delivered to front-line COVID staff at St. Vincent Hospital and UMass – University, Memorial and Hahnemann campuses.

Special thanks to caterer Garden Fresh

Special thanks to Food Donations Coordinator Janet

Thank you to the ED and all St. Vincent ICUs

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Thank you to the E-ICU Support Center Staff
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