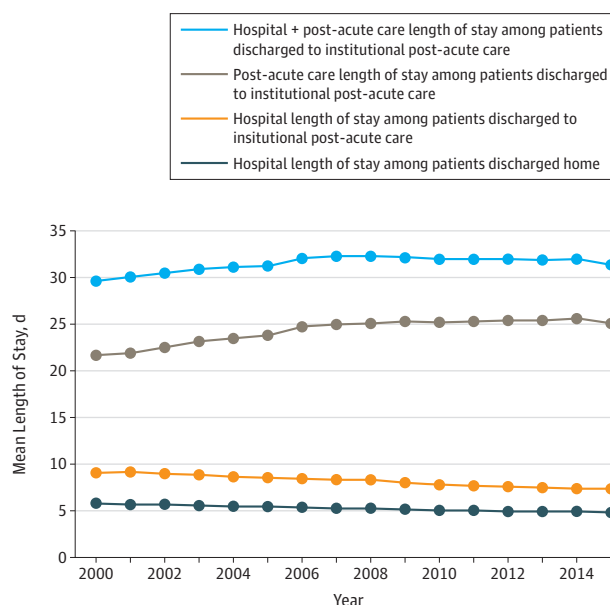


**Figure 2. Mean Length of Stay in the Hospital, in Post-Acute Care, and in the Combination of Hospital Plus Post-Acute Care**



Estimates are adjusted for patient age, sex, race, and Elixhauser comorbidities. The median number of hospital discharges to home per year was 6 664 718 (interquartile range [IQR], 5 768 018-7 367 173) and the median number of discharges to post-acute care per year was 2 151 959 (IQR, 1 978 709-2 199 801).

**Author Affiliations:** Division of General Internal Medicine, University of Pennsylvania Perelman School of Medicine, Philadelphia (Werner); Department of Public Health Sciences, University of Chicago, Chicago, Illinois (Konetzka).

**Accepted for Publication:** February 19, 2018.

**Corresponding Author:** Rachel M. Werner, MD, PhD, Division of General Internal Medicine, University of Pennsylvania Perelman School of Medicine, 423 Guardian Dr, Blockley Hall, Room 1314, Philadelphia, PA 19104 ([rwerner@upenn.edu](mailto:rwerner@upenn.edu)).

**Author Contributions:** Dr Werner had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

**Concept and design:** Both authors.

**Acquisition, analysis, or interpretation of data:** Werner.

**Drafting of the manuscript:** Werner.

**Critical revision of the manuscript for important intellectual content:** Both authors.

**Statistical analysis:** Both authors.

**Obtained funding:** Werner.

**Conflict of Interest Disclosures:** Both authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Dr Werner reported receiving grants from the National Institute on Aging and Agency for Healthcare Research and Quality and personal fees from CarePort Health. No other disclosures were reported.

**Funding/Support:** This work was funded by grant R01-HS024266 from the Agency for Healthcare Research and Quality and in part by grant K24-AGO47908 from the National Institute on Aging (Dr Werner).

**Role of the Funder/Sponsor:** The funders had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

**Additional Contributions:** We thank Mingyu Qi, MS (University of Pennsylvania), for creating an analytic dataset for this project as part of his regular employment, without additional compensation.

1. Burke RE, Juarez-Colunga E, Levy C, Prochazka AV, Coleman EA, Ginde AA. Rise of post-acute care facilities as a discharge destination of US hospitalizations. *JAMA Intern Med.* 2015;175(2):295-296.

2. MedPAC. *Data Book: Health Care Spending and the Medicare Program.* Washington, DC: Medicare Payment Advisory Commission; 2017.

3. Mechanic R. Post-acute care—the next frontier for controlling Medicare spending. *N Engl J Med.* 2014;370(8):692-694.

4. Dummit LA, Kahvecioglu D, Marruffo G, et al. Association between hospital participation in a medicare bundled payment initiative and payments and quality outcomes for lower extremity joint replacement episodes. *JAMA.* 2016;316(12):1267-1278.

5. Centers for Medicare & Medicaid Services. MedPAR RIF. <https://www.resdac.org/cms-data/files/medpar-rif>. Accessed February 9, 2018.

## COMMENT & RESPONSE

### Diagnosis and Treatment of Hidradenitis Suppurativa

**To the Editor** Drs Saunte and Jemec performed an illustrative review focused on the advances in diagnosis and treatment of hidradenitis suppurativa (HS).<sup>1</sup> However, the advances in imaging of the disease were not discussed.

For example, regarding the pathogenesis, ultrasound studies have allowed visualization of the hidden connections between the tunnels or fistulous tracts and fluid collections and the dilated and ruptured base of the hair follicles, which were illustrated in Figure 3 in the article.<sup>1-3</sup> Regarding the staging of hidradenitis, ultrasonography has also demonstrated that clinical evaluation and commonly used clinical scoring systems can miscategorize as healthy skin corporal segments with fluid collections or fistulous tracts underneath.<sup>3</sup> The latter findings on imaging can be critical because, as pointed out by the authors, the choice of therapy is guided by disease severity. Currently, color Doppler ultrasound can support the detection of key sub-clinical lesions, the staging of the disease, and the assessment of activity and has been added to the clinical evaluation of hidradenitis in many centers around the world.<sup>3,4</sup> Moreover, ultrasound is also being used in ongoing trials.

In patients with indications for local or systemic treatments, imaging can be a noninvasive tool for monitoring the response. In patients with a surgical indication, an image-guided mapping of the extent of the abnormalities can be performed. Ultrasound has the ability to detect, categorize, and measure the lesions in all the corporal regions affected by hidradenitis.<sup>3</sup> This imaging information may allow better selection of the type of medical treatment or the location and extent of the surgical incision.<sup>3</sup>

#### Ximena Wortsman, MD

**Author Affiliation:** Institute for Diagnostic Imaging and Research of the Skin and Soft Tissues, University of Chile, Santiago, Chile.

**Corresponding Author:** Ximena Wortsman, MD, Institute for Diagnostic Imaging and Research of the Skin and Soft Tissues, University of Chile, Lo Fontecilla 201, Oficina 734, Las Condes, 7591018, Santiago, Chile ([xworts@yahoo.com](mailto:xworts@yahoo.com)).

**Conflict of Interest Disclosures:** The author has completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest and reported receiving personal fees from Abbvie, Novartis, Janssen-Cilag, and Springer.

1. Saunte DML, Jemec GBE. Hidradenitis suppurativa: advances in diagnosis and treatment. *JAMA.* 2017;318(20):2019-2032.

2. Wortsman X, Jemec G. A 3D ultrasound study of sinus tract formation in hidradenitis suppurativa. *Dermatol Online J.* 2013;19(6):18564.

- Wortsman X, Moreno C, Soto R, Arellano J, Pezo C, Wortsman J. Ultrasound in-depth characterization and staging of hidradenitis suppurativa. *Dermatol Surg*. 2013;39(12):1835-1842.
- Martorell A, Wortsman X, Alfageme F, et al. Ultrasound evaluation as a complementary test in hidradenitis suppurativa: proposal of a standardized report. *Dermatol Surg*. 2017;43(8):1065-1073.

- Camisa C. Squamous cell carcinoma arising in acne conglobata. *Cutis*. 1984;33(2):185-187, 190.
- Patel SH, Robbins JR, Hamzavi I. Radiation therapy for chronic hidradenitis suppurativa. *J Nucl Med Radiat Ther*. 2013;4:146. doi:10.4172/2155-9619.1000146
- Chinnaiyan P, Tena LB, Brenner MJ, Welsh JS. Modern external beam radiation therapy for refractory dissecting cellulitis of the scalp. *Br J Dermatol*. 2005;152(4):777-779.

**To the Editor** The article on HS<sup>1</sup> reviewed old and new medical and surgical treatments but omitted any mention of radiation therapy.

HS, along with acne conglobata and dissecting cellulitis, constitute the “follicular occlusion triad.” All 3 conditions are frequently complicated by secondary infections, which may exacerbate and perpetuate the conditions, and malignant degeneration has been reported.<sup>2</sup> Such malignant degeneration is akin to development of Marjolin’s ulcers, which are squamous cell carcinomas developing in areas of scarring and chronic inflammation following burns, cutaneous ulceration, and discoid lupus erythematosus.

Although no randomized trials have compared low-dose radiation therapy vs adalimumab, anakinra, ustekinumab, infliximab or surgical methods, the authors did mention the PIONEER I and II trials. In these well-conducted clinical studies of adalimumab, the results were not very different from those obtained in studies of radiotherapy, especially for patients with highly refractory (eg, Hurley stage II/III) disease.<sup>3</sup> Using modern techniques and equipment, radiation therapy remains a reasonable and well-tolerated option for patients with severe or refractory HS and dissecting cellulitis of the scalp.<sup>4</sup> Hypofractionated radiation treatment (ie, relatively large doses per day over an abbreviated course, such as 7.5 Gy over 3 consecutive days) is typically an easily tolerated, cost-effective, and quick option. Not all approaches use large doses per fraction; a clinical trial (NCT03040804) is currently investigating 7.5 Gy in 5 fractions of 1.5 Gy each. The risks of secondary cancer are real but minimal, especially in light of the fact that these conditions can deteriorate into squamous cell carcinomas on their own due to the associated chronic inflammation.

Although we are not asserting that radiotherapy should be front-line treatment in HS and other conditions in the follicular occlusion triad, it is worth mentioning in a review article and keeping in mind as one of the viable and simple treatment options.

Issra Rashed, MD  
James S. Welsh, MS, MD

**Author Affiliations:** Department of Radiation Oncology, Edward Hines Jr Veterans Affairs Hospital, Maywood, Illinois.

**Corresponding Author:** James S. Welsh, MS, MD, Department of Radiation Oncology, Edward Hines Jr Veterans Affairs Hospital, 2160 S First Ave, Maguire Center, Room 2932, Maywood, IL 60153 ([shermanwelsh@gmail.com](mailto:shermanwelsh@gmail.com)).

**Conflict of Interest Disclosures:** Both authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Dr Welsh reported receiving a grant from the National Cancer Institute and personal fees from ProTom International. No other disclosures were reported.

1. Saunte DML, Jemec GBE. Hidradenitis suppurativa: advances in diagnosis and treatment. *JAMA*. 2017;318(20):2019-2032.

**In Reply** Dr Wortsman stresses the need for accurate characterization of lesions and the potential role for high-frequency ultrasonography. The introduction of high-frequency ultrasonography has led to greater diagnostic accuracy in many fields of clinical medicine and may also do so in dermatology, particularly in HS, in which lesions occur in the dermis or the subcutaneous tissues. We agree with Wortsman that high-frequency ultrasonography is a strong candidate for the preferred imaging technology, although additional validation is necessary before it is fully integrated into daily clinical practice.

High-frequency ultrasonography may also improve the quality of measurements in HS. Quantifying chronic non-lethal disease is an important challenge. A systematic review has indicated that validation of existing HS clinical scores may be inadequate.<sup>1</sup> In response, the Hidradenitis Suppurativa Core Outcomes Set International Collaboration (HISTORIC) was formed as a collaboration between the International Dermatology Outcome Measures initiative, the Core Outcome Set Initiative within the Cochrane Skin Group, and Zealand University Hospital, Roskilde.<sup>2</sup> Initially, HISTORIC focused on defining the core outcomes set, but is now working on patient-reported outcome measures to support the core outcomes.<sup>3</sup> Supplementing patient-reported outcome measures with imaging is planned in an initiative by the European Hidradenitis Suppurativa Foundation.

Drs Rashed and Welsh touch upon another core issue—therapy. They rightly state that radiation therapy is an option for select patients.<sup>4,5</sup> However, there is only limited literature available and no newer systematic studies. Although generally safe, a degree of reticence with regard to radiation therapy of benign lesions is generally recommended, particularly for HS, in which a large proportion of the patients are fertile women with paragenital lesions. Recently, cases of radiation-induced HS have been published.<sup>6</sup> Therefore, although we acknowledge that radiation may be an option for select HS patients, more recent developments in this therapeutic area have been limited and safety concerns raised. We believe that a more systematic exploration of radiation therapy for HS is necessary before the optimal role of this treatment is found.

Currently, the majority of HS patients appear best served by multimodal therapy (ie, a combination of medical treatment, surgery, and supportive care aimed at risk factors and significant comorbidities).

Ditte Marie Lindhardt Saunte, MD, PhD  
Gregor Borut Ernst Jemec, MD, DMSc

**Author Affiliations:** Department of Dermatology, Zealand University Hospital, Roskilde, Denmark.

**Corresponding Author:** Gregor B. E. Jemec, MD, DMSc, Department of Dermatology, Zealand University Hospital, Sygehusvej 10, DK 4000 Roskilde, Denmark (gjb@regionsjaelland.dk).

**Conflict of Interest Disclosures:** The authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Dr Saunte reported receiving personal fees from Bayer, AbbVie, Desitin, Pfizer, Galderma, Astellas, Novartis, and Leo Pharma. Dr Jemec reported grants and personal fees from AbbVie, Novartis, and Leo Pharma; personal fees from Coloplast, Pierre Fabre, InflaRx, and UCB; grants from Regeneron and Serono; and nonfinancial support from Serono.

1. Ingram JR. Interventions for hidradenitis suppurativa: updated summary of an original Cochrane review. *JAMA Dermatol*. 2017;153(5):458-459.
2. Thorlacius L, Ingram JR, Garg A, et al. Protocol for the development of a core domain set for hidradenitis suppurativa trial outcomes. *BMJ Open*. 2017;7(2):e014733.
3. Thorlacius L, Garg A, Ingram JR, et al. Towards global consensus on core outcomes for hidradenitis suppurativa research. *Br J Dermatol*. 2017. doi:10.1111/bjd.16093
4. Fröhlich D, Baaske D, Glatzel M. Radiotherapy of hidradenitis suppurativa—still valid today? [in German]. *Strahlenther Onkol*. 2000;176(6):286-289.
5. Paul S, Bach D, LeBoeuf NR, Devlin PM, Lipworth AD. Successful use of brachytherapy for a severe hidradenitis suppurativa variant. *Dermatol Ther*. 2016;29(6):455-458.
6. De Vita V, Ruocco E. Hidradenitis suppurativa after radiotherapy for uterine adenocarcinoma. *JAAD Case Rep*. 2017;3(6):570-571.

## Government Actions to Curb the Opioid Epidemic

**To the Editor** Drs Kolodny and Frieden<sup>1</sup> outlined steps the government should take to curb the opioid epidemic, such as improving surveillance of prescribers through the use of databases, improving reporting and responses to overdoses, promoting more cautious guidelines for use of narcotics, increasing access and reimbursement for nonopioid and non-pharmacologic management of pain, interrupting supply of heroin and illicitly produced synthetic opioids, increasing access to addiction treatment, and reducing harm to current users. However, they left out the role the Drug Enforcement Administration (DEA) can play in its ability to block drug manufacturers and drug distributors from shipping suspiciously large narcotic shipments.

Shipment seizure was hampered when the Ensuring Patient Access and Effective Drug Enforcement Act of 2016<sup>2</sup> was signed into law. Designed to ensure patient access to prescription opioids for legitimate use, it also changed the criteria used to justify opioid shipment seizures when sheer numbers of pills ordered by pain clinics, physicians, and pharmacies made it likely that these agents were supplying prescription opioids for diversion onto the black market. The DEA previously had authority to seize shipments that imposed “imminent danger,” but the law requires the DEA to demonstrate that a shipment would represent a “substantial likelihood of an immediate threat.”<sup>2</sup> This legal bar is much higher and basically prevents the DEA from using immediate suspension orders in cases involving drug manufacturers and distributors. This law was lobbied for by pharmaceutical companies and drug distributors between 2014 and 2016.<sup>3-5</sup> Since its passage, immediate suspension orders against physicians, pharmacies, drug distributors, and drug companies have decreased.<sup>3</sup>

Mary van den Berg-Wolf, MD

jama.com

**Author Affiliation:** Jefferson Internal Medicine Associates, Bala Cynwyd, Pennsylvania.

**Corresponding Author:** Mary van den Berg-Wolf, MD, Jefferson Internal Medicine Associates, 225 City Ave, Ste 109, Bala Cynwyd, PA 19004 (mary.vandenbergwolf@jefferson.edu).

**Conflict of Interest Disclosures:** The author has completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest and none were reported.

1. Kolodny A, Frieden TR. Ten steps the federal government should take now to reverse the opioid addiction epidemic. *JAMA*. 2017;318(16):1537-1538.
2. Ensuring Patient Access and Effective Drug Enforcement Act of 2016. Pub L No. 114-145, 130 Stat 353.
3. Higham S, Bernstein L. The drug industry's triumph over the DEA. *The Washington Post*. <https://www.washingtonpost.com/graphics/2017/investigations/dea-drug-industry-congress/>. Published October 15, 2017. Accessed October 18, 2017.
4. Higham S. Drug industry quashed DEA efforts to block opioids. *The Washington Post*. <https://www.bostonglobe.com/news/nation/2017/10/15/drug-industry-quashed-dea-efforts-block-opioids/35xGgPvE6J5oOCbUuVMi9J/story.html>. Published October 15, 2017. Accessed October 18, 2017.
5. Mulrooney JJ II, Legel KE. Current navigation points in drug diversion law: hidden rocks in shallow, murky, drug-infested waters. *Marquette Law Review*. <https://assets.documentcloud.org/documents/4108121/Marquette-Law-Review-Mulrooney-Legel.pdf>. Accessed October 18, 2017.

**To the Editor** In their Viewpoint, Drs Kolodny and Frieden<sup>1</sup> advanced 10 priorities for addressing the US opioid crisis. Although some of the proposed steps, such as expanding access to opioid agonist treatment and naloxone, rest on solid evidentiary ground, other suggestions risk doing more harm than good. First, Kolodny and Frieden proposed using Prescription Drug Monitoring Programs (PDMPs) to identify incident trends in opioid addiction by tracking newly filled prescriptions for a 30-day or longer supply as a marker of addiction. This approach is prone to type I error and renders the substantial (and growing) proportion of opioid-addicted individuals who access opioids outside of prescription channels completely hidden.<sup>2,3</sup> Although better surveillance for opioid addiction is imperative, PDMPs are poorly suited for this purpose.

Second, the way the authors suggested expanding the scope of PDMPs raises privacy concerns. For example, they argued for the curtailment of 42 CFR Part 2 (Confidentiality of Substance Use Disorder Patient Records), a federal law protecting substance use disorder treatment-related data. Curtailment would facilitate the integration of substance use disorder treatment data into PDMPs, which, as a result of recent federal court decisions, would expose private information to warrantless DEA searches.<sup>4</sup> Such access could discourage substance users from seeking help and health care, especially the most vulnerable patients. Instead, federal law should be reformed to better protect PDMP data from unfettered law enforcement access at state and federal levels.

Third, the authors claimed that more intensive interdiction would reduce black market opioid consumption by raising prices. To our knowledge, peer-reviewed evidence does not support this claim for opioids; in fact, the authors' citations focus on dated tobacco control data of limited relevance.<sup>1</sup> In actuality, interdiction and law enforcement pressure can backfire by nudging black market supply chains toward more