Approaching Pediatric Psoriasis
A Specialist Perspective


In light of new Guidelines for Care of pediatric patients with psoriasis, a specialist offers insight on what's changing—and what hasn't.

BY ANDREW C. KRAKOWKSI, MD AND STEPHEN SENFT, MD

>> Once a center for American steel production, the Lehigh Valley has evolved into a thriving hub for accessible healthcare, life science and technology, and other professional services. The "Allentown-Bethlehem-Easton" area—as it is officially recognized by the United States Census Bureau—is the third most populous region in Pennsylvania and ranks in the 79th percentile for population growth nationally. Newcomers are attracted to the area by the reduced cost of living and an enhanced quality of life based on a "big city look with a small town feel." The surging and diverse population of more than two million people has created a need for improved access to specialty and sub-specialty services of dermatology and pediatric dermatology, respectively.

Stephen C. Senft, MD has been a practicing board-certified dermatologist in Bethlehem, PA for more than 30 years, having developed a recognized regional expertise in treating psoriasis and other inflammatory skin disorders. He recently joined Andrew C. Krakowski, MD (a practicing pediatric dermatologist and a *Practical Dermatology*® magazine editorial board member) in building a brand new dermatology department at St. Luke's University Health Network. Recently, Dr. Krakowski sat down with Dr. Senft to glean his unique perspective on how new guidelines of care have changed—or reinforced—his management of psoriasis patients across the Lehigh Valley.

Andrew Krakowski, MD: The American Academy of Dermatology and National Psoriasis foundation published their guidelines of care in the January 2020 issue of *JAAD*.[1] As a long-standing, in-the-trenches clinician, what are your initial reactions to these guidelines?

Stephen Senft, MD: The 32 authors should be commended for the breadth and scope of the guidelines as presented in their 40-page document. The guidelines are appropriately referenced from the robust, evidence-based research in psoriasis that has transformed the care of psoriasis in the past 20 years. Prior to that time therapies in psoriasis were often anecdotal or time-honored empiric therapies such as Goeckerman therapy. The days of coal tar and topicals for what was perceived as "only a skin disease" are over. Psoriasis is now known to be a chronic, multisystem, inflammatory disease. A diagnosis of psoriasis, especially in a child, may have lifelong concerns requiring possible dermatologic, rheumatologic, cardiovascular, endocrinologic, and psychiatric interventions. The goals of care of pediatric psoriasis have moved from short-term control of external appearance to long-term goals of a long and healthy life with a minimum of morbidity. An analogy might be made to juvenile diabetes in which a team approach has made great strides in laying the framework for a healthy diabetic adulthood. In much

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the**bottom**line

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the same way, the new recommendations set guidelines for monitoring and hopefully minimizing morbidities that may not present until adulthood.

Dr. Krakowski: What are some benefits and barriers to a multidisciplinary team approach in psoriasis?

Dr. Senft: Ideally, a team of care in psoriasis would include dermatology and rheumatology, with readily available access to pediatrics, endocrinology, gastroenterology, and cardiology. Communication between specialists is crucial, and a shared or interconnected EMR platform is ideal. Quick access to laboratory and imaging data can be instrumental in making treatment decisions. For example, knowing that there is pathologic evidence of Crohn's disease may point therapy away from an IL-17 inhibitor, while X-ray evidence of significant erosive arthritis would probably direct therapy toward a TNF class or IL17 inhibitors, such as ixekizumab. In addition, a shared EMR platform can sometimes prevent gaps in history that the patient, parent, or designated caregiver could not provide. For example, knowing that a pediatric patient has selective IGA deficiency might heighten the concern that TNF drugs could increase the incidence of serious infections.

Dr. Krakowski: Should the multidisciplinary team be geographically in the same place?

Dr. Senft: Ideally, yes, but there are logistical problems in placing different specialists in the same clinic. Moreover, many insures will not pay for the same diagnosis by different specialists under a single institution's entity number. Multiple copays to multiple specialists on the same day could also be prohibitive. I suspect in the future that multidisciplinary clinics for conditions like psoriasis may become "virtual" EMR-based communication networks rather than a physical space.

Dr. Krakowski: What interventions in a child could make a long-term difference?

Dr. Senft: Psoriatic arthritis in children is relatively rare, affecting only about one percent of children with psoriasis. Yet in adulthood, psoriatic arthritis affects roughly one in three individuals with psoriasis. Early identification of symptoms of morning stiffness, stiffness at rest, isolated joint swelling, and back pain can identify early disease. It is clear from the adult literature that the new biologic drugs can stop irreversible joint destruction; however, delay in diagnosis of inflammatory arthritis in adults for more than one year has been correlated with irreversible joint destruction. Another potential opportunity for intervention in children is identification of obesity. The temporal association of obesity with psoriasis is established. In the adult literature there is evidence that weight loss in psoriasis may lower the rate of later occurrence of arthritis and nonalcoholic fatty liver disease (NAFLD). The end stage of NAFLD is nonalcoholic steatohepatitis (NASH), which is anticipated to overtake Hepatitis C as a top cause of adult and pediatric liver transplantation in the United States

Dr. Krakowski: What about cardiovascular risks in a child with psoriasis?

Dr. Senft: The link between adult psoriasis and major

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adverse cardiovascular events (MACE) in adults is now well established. The current guidelines for children with psoriasis call for education regarding cardiovascular risk factors and monitoring for obesity, hypertension, dyslipidemia, and insulin resistance. There is preliminary evidence in adults that biologics and/or methotrexate may alter MACE in adults. Whether or not this applies to the pediatric population is unknown. However, autopsy data and CT angiography support that coronary artery disease may begin early in life and is estimated to be present in about one in five men by age 34.

Dr. Krakowski: Are there other health concerns in psoriasis?

Dr. Senft: The rate of inflammatory bowel disease, especially Crohn's disease, was increased several fold in children with psoriasis. Therefore, monitoring for gastrointestinal symptoms, poor growth, or unintentional weight loss is indicated. As in adults, an increased incidence of mental health issues in pediatric patients is reported. Guidelines recommend informal or formal screening. Also, because of the clear association of alcohol abuse in adults and psoriasis, questions regarding substance abuse were recommended.

Dr. Krakowski: As someone who historically has provided care to pediatric psoriasis patients, what concerns do you have for implementing these guidelines?

Dr. Senft: Partly due to socioeconomic and access issues, the potential for significant disparate levels of care in the treatment of pediatric psoriasis is probably now far greater than in the past. In the past when treatment options were so limited and comorbidities were unknown, meeting a certain historical standard of care was relatively easy with inexpensive access to topical steroids, UVB, or coal tar. Today, due to our understanding that this is a chronic multisystem disease, the recommended guidelines have now become quite exhaustive.

Due to geographic constraints access to specialist, especially pediatric subspecialists, can be challenging. Time commitments for the provider can go far beyond a well child visit. Access to medications in psoriasis is also difficult. For example, a discounted price for clobetasol with calcipotriene in an optimized vehicle on a recent search was more than $1,000 for a 30gram tube. The two approved biologics in pediatric psoriasis, etanercept and ustekinumab, may approach costs of $30,000 to $60,000 a year.

Dr. Krakowski: What are your thoughts about the future of pediatric psoriasis?

Dr. Senft: The future is undoubtedly bright for the additional approval of other biologics in psoriasis. There is additional hope that oral agents, such as selective tyrosine kinase inhibitors or the PDE-4 inhibitor, apremilast, may become available for pediatric psoriasis. The real challenge in the future may be that of funding the care of pediatric conditions like psoriasis. As childhood has higher rates of poverty and low income than adults, the challenges of funding care for psoriasis in the pediatric population is further magnified.

As noted in *Pediatrics* in 2018,[2] 30 million or roughly 40 percent of the pediatric population is on public insurance, largely medical assistance and CHIP. There are ongoing efforts to lower the income limits to 300 percent, 200 percent or 100 percent of federal poverty level. The projections are that care of children, especially those with chronic illness, would be greatly affected. Moreover, in kids with commercial insurance specialty care copays and prescription deductibles may be beyond the means of young working families. Per the Affordable Care Act (ACA), for 2020, qualified health plans can still have an out-of-pocket limit of $16,300 for a family. In dermatology, given the often very narrow "preferred" prescription lists, these limits may be reached even before consideration of biologics. ■

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1. Menter MD, Cordoro KM, Davis DMR, Kroshinsky D et.al. Joint American Academy of Dermatology-National Psoriasis Foundation Guidelines of Care for the Management and Treatment of Psoriasis in Pediatric Patients. JAAD. 2020;82(1):161-201.
2. Bettenhausen JL, Hall M, Calvin JD, Puls HT, Chung PJ. The Effect of Lowering Public Insurance Limits on Hospitalizations for Low Income Children. Pediatrics. 2018 ;142(2) e20173486.