

# Letters to the Editor

## Smoking Cessation in Adolescents

**To the Editor:** We appreciate the comprehensive review by Dr. Gaddey and colleagues on the important topic of tobacco cessation.<sup>1</sup> The article summarizes the current evidence for pharmacologic and nonpharmacologic interventions and comes at a timely juncture, with electronic cigarettes (e-cigarettes) emerging as the next “big tobacco” product. We agree with the recommendation to use combination nicotine replacement therapy (NRT), the use of a controller and reliever, as a preferred first-line treatment option for adults because of the 25% increased likelihood of quitting compared with monotherapy.

For adolescent patients, a nuanced approach is needed. Common risk factors for youth tobacco use include peer and family use, lifestyle indicators, psychiatric disorders, and substance use disorders. Most adolescent smokers have expressed interest in quitting.<sup>2</sup> Due to the lack of adequately powered studies on adolescent smoking, pharmacotherapy (including NRT) for adolescents is not endorsed by the U.S. Preventive Services Task Force (USPSTF).<sup>3</sup> According to the 2022 National Youth Tobacco Survey, 1 in 7 high school students has used tobacco in the past 30 days, with e-cigarettes being the predominant form.<sup>4</sup> Early initiation may also predict the frequency and intensity of subsequent smoking.<sup>5</sup> Nicotine products continue to evolve, and higher nicotine concentrations in e-juice and higher puff vaping devices have become available.

Even though NRT is not approved by the U.S. Food and Drug Administration for patients younger than 18 years, it is available for off-label use with a prescription. NRT is endorsed by the American Academy of Pediatrics (AAP) for adolescents with moderate to severe nicotine dependence who are motivated to quit.<sup>6</sup> Severity of dependence can be determined by the *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed. criteria or tools such as the Fagerström Test for Nicotine Dependence or Heaviness of Smoking Index ([https://cde.nida.nih.gov/sites/nida\\_cde/files/FagerstromTest\\_2014Mar24.pdf](https://cde.nida.nih.gov/sites/nida_cde/files/FagerstromTest_2014Mar24.pdf)). We prefer the AAP's position because of the high disease burden of adolescent vaping, including concern for pulmonary toxicity

of e-cigarette chemicals. The USPSTF acknowledges that the risk of adverse effects with NRT is low in adolescents, and the benefits of quitting outweigh the harms of continued use. No biologic precedent or evidence of serious harm would suggest that short-term NRT is unsafe for youth with nicotine dependence.

Adolescents who use tobacco face many barriers to quitting. Many benefit from routine screening, motivational interviewing, text-message-based counseling, and mobile apps. When combined with behavioral interventions, rational pharmacotherapy with NRT may provide motivated adolescents the best chance to quit.

**Payam Sazegar, MD, FAAFP**

San Diego, Calif.

Email: [payam.p.sazegar@kp.org](mailto:payam.p.sazegar@kp.org)

**Alaina N. Martinez, MD**

San Diego, Calif.

**Matthew D. Varallo, DO, FAAFP**

La Palma, Calif.

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**In Reply:** Thank you for your excellent response. However, an important nuance exists between the USPSTF and AAP guidelines stated below.

The USPSTF states, “...the current evidence is insufficient to assess the balance of benefits and harms of primary care-feasible interventions for the cessation of tobacco use among school-aged children and adolescents.”<sup>1</sup>

The AAP states, “Given the effectiveness of NRT for adults and the severe harms of tobacco dependence, AAP policy recommends that pediatricians consider off-label NRT for youth who are moderately or severely addicted to nicotine and motivated to quit.”<sup>2</sup>

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This series is coordinated by Kenny Lin, MD, MPH, deputy editor.

Essentially, both admit to the need for ongoing research, both recommend broad screening and prevention strategies, neither recommends NRT outright, and both leave it to the clinician to make the best decision with the patient. Adolescents experience many barriers to care, and we agree with encouraging research and promoting clinician efforts to offer adolescents the best possible cessation strategies for them.

**MaryAnn Dakkak, MD, MPH**

Boston, Mass.

Email: [mdakkak@gmail.com](mailto:mdakkak@gmail.com)

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