RESOLUTION

Subject: Patient Education of Skin-Applied Insect Repellent and Permethrin Treated Clothing

for Prevention of Insect Bites and Vector-Borne Diseases

Submitted by: Sarah Taheri, MS and Onajia Stubblefield, MS (Medical Student Section)

Referred to: Reference Committee

WHEREAS, there are several dangerous tick-borne diseases present in the state of Kentucky including Alpha-Gal Syndrome, Anaplasmosis, Ehrlichiosis, Lyme Disease, and Rocky Mountain Spotted Fever¹; and

WHEREAS, there are over 50 species of mosquito in Kentucky including species that are capable of transmitting West Nile virus, dengue, yellow fever, La Crosse encephalitis, eastern equine encephalitis, and Zika virus to humans²; and

WHEREAS, vector-borne diseases (VBDs) increasingly threaten the health and well-being of people in the United States, with reported cases doubling over the last two decades³; and

WHEREAS, the following are active ingredients found in EPA registered skin-applied insect repellents that have been evaluated and approved for safety and effectiveness: DEET, picaridin, IR3535, oil of lemon eucalyptus (OLE), catnip oil, oil of citronella, para-menthane-diol (PMD), or 2-undecanone^{4, 5}; and

WHEREAS, the EPA has determined Permethrin factory-treated clothing to be safe and effective in repelling target pests including mosquitoes and ticks⁶; and

WHEREAS, when used consistently and correctly, personal protective measures, like using EPA-registered insect repellents, are effective for preventing mosquito and tick bites. However, most people do not take these precautions⁷; now, therefore, be it

RESOLVED, that KMA encourages physicians to recommend patients apply EPA registered insect repellent to their skin or wear Permethrin treated clothing during outdoor activities at their annual health or preventative care visits.

References:

- 1. https://www.chfs.ky.gov/agencies/dph/dehp/idb/Pages/tick-borne.aspx
- 2. https://www.uky.edu/Ag/Entomology/PSEP/cat8mosquito.html
- 3. The U.S. Department of Health and Human Services and the U.S. Centers for Disease Control and Prevention. The National Public Health Strategy to Prevent and Control Vector-Borne Diseases in People. U.S. DHHS, CDC; 2024
- 4. https://www.epa.gov/insect-repellents/skin-applied-repellent-ingredients
- 5. https://www.epa.gov/insect-repellents/regulation-skin-applied-repellents
- 6. https://www.epa.gov/insect-repellents/repellent-treated-clothing
 7. Gibney KB, Colborn J, Baty S, Bunko Patterson AM, Sylvester T, Briggs G, Stewart T, Levy C, Komatsu K, MacMillan K, Delorey MJ, Mutebi JP, Fischer M, Staples JE. Modifiable risk factors for West Nile virus infection during an outbreak--Arizona, 2010. Am J Trop Med Hyg. 2012 May;86(5):895-901. doi: 10.4269/ajtmh.2012.11-0502. PMID: 22556093; PMCID: PMC3335699.