



<b>ISSUE DATE</b>  July 18, 2016	<b>EFFECTIVE DATE</b>  July 18, 2016	<b>NUMBER</b>  99-16-14
<b>SUBJECT</b>  Coverage of Mosquito Repellents		<b>BY</b>    Leesa M. Allen, Deputy Secretary Office of Medical Assistance Programs

**IMPORTANT REMINDER:** All providers must revalidate their MA enrollment every 5 years. Providers should log into PROMISe to check their revalidation date and submit a revalidation application at least 60 days prior. Enrollment (revalidation) applications may be found at [http://www.dhs.pa.gov/provider/promise/enrollmentinformation/S\\_001994](http://www.dhs.pa.gov/provider/promise/enrollmentinformation/S_001994). Providers who enrolled on or before SEPTEMBER 25, 2011 must complete the revalidation process as soon as possible. DHS must complete the revalidation for all providers enrolled on or before September 25, 2011 by September 25, 2016.

**PURPOSE:**

The purpose of this bulletin is as follows:

1. To inform all providers that the Department of Human Services (Department) will provide coverage for mosquito repellents to protect against infection with the Zika virus when prescribed by a licensed prescriber, effective with dates of service on and after July 18, 2016, and to provide a list of covered repellents;
2. To inform prescribing providers of the requirements for prescriptions for covered mosquito repellents; and
3. To inform dispensing pharmacies of the procedures to submit claims for covered mosquito repellents.

**SCOPE:**

This bulletin applies to all providers who are enrolled in the Medical Assistance (MA) Program and render services to MA beneficiaries in the Fee-for-Service delivery system and the managed care delivery system. Providers that render services to MA beneficiaries in the managed care delivery system should address any billing, prior authorization or payment related questions to the appropriate managed care organization (MCO).

<p><b>COMMENTS AND QUESTIONS REGARDING THIS BULLETIN SHOULD BE DIRECTED TO:</b></p> <p>The appropriate toll free number for your provider type</p> <p>Visit the Office of Medical Assistance Programs Web site at <a href="http://www.dhs.pa.gov/provider/healthcaremedicalassistance/index.htm">http://www.dhs.pa.gov/provider/healthcaremedicalassistance/index.htm</a></p>
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## **BACKGROUND:**

The Centers for Medicare and Medicaid Services (CMS) recently advised all Medicaid agencies of the option to provide coverage of mosquito repellents as a means of prevention against mosquito bites and potential infection with the Zika virus. CMS acknowledged that mosquito repellents would not generally be covered by Medicaid. However, CMS noted that there is no vaccine available for the Zika virus, and one of the major means of prevention currently available is protection against mosquito bites, and therefore federal financial participation would be available for these products.

According to the Center for Disease Control and Prevention (CDC):

- The Zika virus spreads to people primarily through the bite of an infected *Aedes* species mosquito (*Ae. aegypti* and *Ae. albopictus*). Additional information about other modes of transmission of the Zika virus is located on the CDC and Department of Health (DOH) websites cited below.
- The most common symptoms of Zika are fever, rash, joint pain, or conjunctivitis (red eyes).
- One of the major ways to prevent Zika is to prevent against mosquito bites. Additional information about prevention is described on the CDC and DOH websites cited below.

The CDC has indicated that it continues to review medical information related to the Zika virus, and maintains a website that includes a comprehensive, up-to-date description of the Zika virus disease, symptoms, diagnosis, treatment, prevention, transmission and risks, as well as clinical guidance for healthcare providers on clinical evaluations, diagnostic testing, tools for healthcare providers, information about the U.S. Zika Pregnancy Registry, and guidance for pregnant women. Providers are encouraged to monitor the CDC website for updated information and clinical guidance on the Zika virus by accessing the website at: [www.cdc.gov/zika/index.html](http://www.cdc.gov/zika/index.html).

The Pennsylvania Department of Health (DOH) also developed a Zika Virus webpage that is located at [www.zika.pa.gov](http://www.zika.pa.gov). The site contains information about the Zika virus, tips to prevent Zika virus infection, risks of infection with Zika during pregnancy, information about diagnosing and testing for the Zika virus for health care providers, and the current number of CDC confirmed and pending Zika cases in Pennsylvania. The site also includes a link to the Zika Virus Response Plan developed by the DOH and the Department of Environmental Protection (DEP) which describes action that will be taken as the risk of locally acquired cases of Zika virus disease increases in Pennsylvania.

## **DISCUSSION:**

Consistent with the administration's commitment to ensuring the health and safety of all Pennsylvanians, the Department elected to cover mosquito repellents in the MA program.

In the United States, there are four common active ingredients in Environmental Protection Agency (EPA)-registered insect repellents that can be applied directly onto the skin. Products containing these active ingredients are recommended by the CDC to aid in protection against mosquito bites.<sup>1,2,3</sup> These active ingredients include DEET (N,N-diethyl-met-toluamide), picaridin (also known as KBR 3023), oil of lemon eucalyptus (OLE) (also known as p-menthane-3,8-diol, or PMD), and IR3535. When used as directed, these EPA-registered insect repellents are considered safe and effective, even for children and pregnant or breast-feeding women.<sup>1,2,3,4,5,7,7</sup> Permethrin spray is also available for use on clothing and outdoor gear and serves as an additional line of protection against mosquitos.<sup>1,2,3,5,6,7</sup>

The most effective protection against mosquitoes consists of permethrin applied to outerwear (such as clothing, backpacks, tents, and other outdoor gear) combined with DEET or picaridin applied directly to exposed skin.<sup>3,7</sup> Products should be applied according to the directions included on the product label or packaging to ensure maximum protection.

Attachment 1 of this MA Bulletin describes mosquito repellents by active ingredient and includes important information and recommendations for providers to consider when prescribing and dispensing mosquito repellents. Attachment 2 lists the scope of covered products with product descriptions, NDCs, quantity limits, and payment limits.

The Department may periodically update the list of covered products and future updates will be posted on the Department's Pharmacy Webpage at the following link:  
<http://www.dhs.pa.gov/provider/pharmacyservices/index.htm>

## **PROCEDURES:**

Mosquito repellents do not meet the definition of legend (brand-name), non-legend (generic) or over-the-counter (OTC) covered outpatient drugs. However, in order to expedite implementation, facilitate access and comply with CMS requirements for optional coverage of these products, the Department is treating mosquito repellents as prescribed drugs. All

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<sup>1</sup> Centers for Disease Control and Prevention. Zika virus: prevention. <http://www.cdc.gov/zika/prevention/>. Updated June 21, 2016. Accessed July 13, 2016.

<sup>2</sup> Nasci RS, Wirtz RA, Brogdon WG. Chapter 2: Protection against mosquitoes, ticks, and other arthropods. In: The Yellow Book Online. Atlanta, GA: Centers for Disease Control and Prevention. <http://wwwnc.cdc.gov/travel/yellowbook/2016/the-pre-travel-consultation/protection-against-mosquitoes-ticks-other-arthropods>. Published July 10, 2015. Accessed June 16, 2016.

<sup>3</sup> Breisch NL. Prevention of arthropod and insect bites: repellents and other measures. In: UpToDate, Golden DB (Ed). UpToDate, Waltham, MA. [https://www.uptodate.com/contents/prevention-of-arthropod-and-insect-bites-repellents-and-other-measures?source=search\\_result&search=prevention+arthropod+insect+bites+repellent&selectedTitle=2~150](https://www.uptodate.com/contents/prevention-of-arthropod-and-insect-bites-repellents-and-other-measures?source=search_result&search=prevention+arthropod+insect+bites+repellent&selectedTitle=2~150). Updated March 17, 2016; Accessed June 6, 2016.

<sup>4</sup> American Academy of Pediatrics. Safe use of insect repellents can minimize itching, scratching. *AAP News*. 2013;34:16. doi: 10.1542/aapnews.2013346-16a.

<sup>5</sup> Insect repellents. *Med Lett Drugs Ther*. 2016;58(1498):83.

<sup>6</sup> United States Environmental Protection Agency. Repellent-treated clothing. <https://www.epa.gov/insect-repellents/repellent-treated-clothing#Meaning%20of%20EPA%20Registration>. Updated March 29, 2016. Accessed July 13, 2016.

<sup>7</sup> Comparison of insect repellents. *Pharmacist's Letter*. 2016; Detail-Document #: 320402. <http://pharmacistsletter.therapeuticresearch.com/pl/ArticlePDF.aspx?cs=&s=PL&DocumentFileID=0&DetailID=320402&SegmentID=0>. Accessed June 6, 2016.

requirements and procedures related to prescribing, dispensing, and claims processing for covered outpatient drugs apply unless otherwise noted below for mosquito repellents.

**For Prescribing Providers:** In order for the Department to make payment for a mosquito repellent, the repellent must be prescribed by a provider who is licensed to prescribe drugs. The prescribing provider must include on the prescription, at a minimum, the name and the concentration of the active ingredient being prescribed.

**For Dispensing Pharmacies:** Dispensing pharmacies can submit claims for covered insect repellents via the PROMISE on-line claims adjudication system using the National Council for Prescription Drug Programs (NCPDP) procedures.

**ATTACHMENTS:**

Description of Mosquito Repellents by Active Ingredient (Attachment 1)

MA Program Payment for Mosquito Repellents by Active Ingredient and Product Description (Attachment 2)

## Description of Environmental Protection Agency (EPA)-Registered Mosquito Repellents by Active Ingredient

Active Ingredient	Recommended Ages <sup>1,2,3,4,5</sup>	Recommended Concentrations <sup>1,2,4,5</sup>	Approximate Maximum Duration of Effect <sup>1,2,4,5,6</sup>	Safe to use while pregnant or breastfeeding when used as recommended on product label? <sup>1,2,4,6,7</sup>	Additional Comments <sup>1,2,3,4,7,8</sup>
<b>DEET</b>	≥ 2 months	children: 10-30% adults: up to 50% for maximum duration of effect <sup>8</sup>	10% = 2 hours 15% = 3 hours 20% = 4 hours 25% = 5 hours 30-40% = 6 hours	Yes	<ul style="list-style-type: none"> <li>• for application directly to skin</li> <li>• “gold standard” mosquito repellent</li> <li>• may damage some synthetic fabrics and plastics</li> <li>• may have an odor and feel oily or sticky</li> <li>• time-release formulations may allow for a longer duration of effect at lower concentrations</li> </ul>
<b>Picaridin</b>	≥ 2 months	children: 5-10% adults: up to 20%	10% = 5 hours 20% = 7-10 hours	Yes	<ul style="list-style-type: none"> <li>• for application directly to skin</li> <li>• does not damage plastics or clothing</li> <li>• no chemical odor or oily, sticky feel</li> <li>• may be less irritating to skin</li> <li>• generally works as well as DEET</li> </ul>
<b>IR3535</b> [KBR 3023]	≥ 2 months	10-30%	7.5% = < 1 hour 20% = up to 6-8 hours	Yes	<ul style="list-style-type: none"> <li>• for application directly to skin</li> <li>• may damage plastic and clothing</li> <li>• data regarding effectiveness compared to DEET is lacking</li> <li>• estimates of duration of effect vary widely</li> </ul>
<b>Oil of lemon eucalyptus (OLE)</b> [also known as p-menthane-3,8-diol (PMD)]	≥ 3 years	30%	10% = 2 hours 30% = 3 hours 40% = 4-6 hours	Yes	<ul style="list-style-type: none"> <li>• for application directly to skin</li> <li>• may cause skin irritation in patients predisposed to allergic dermatitis</li> <li>• data regarding effectiveness compared to DEET is lacking</li> <li>• estimates of duration of effect vary widely</li> </ul>
<b>Permethrin</b>	N/A (not applied directly to the skin)	0.5%	2 weeks, lasts through several washings	Yes (not applied directly to the skin)	<ul style="list-style-type: none"> <li>• for application to outerwear, bedding, sports and camping equipment, etc</li> <li>• NOT for application directly to skin</li> <li>• use in conjunction with a mosquito repellent applied to exposed skin for maximum protection</li> </ul>

## Description of Environmental Protection Agency (EPA)-Registered Mosquito Repellents by Active Ingredient

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<sup>1</sup> Comparison of insect repellents. *Pharmacist's Letter*. 2016; Detail-Document #: 320402.

<http://pharmacistsletter.therapeuticresearch.com/pl/ArticlePDF.aspx?cs=&s=PL&DocumentFileID=0&DetailID=320402&SegmentID=0>. Accessed June 6, 2016.

<sup>2</sup> Breisch NL. Prevention of arthropod and insect bites: repellents and other measures. In: UpToDate, Golden DB (Ed). UpToDate, Waltham, MA.

[https://www.uptodate.com/contents/prevention-of-arthropod-and-insect-bites-repellents-and-other-measures?source=search\\_result&search=prevention+arthropod+insect+bites+repellent&selectedTitle=2~150](https://www.uptodate.com/contents/prevention-of-arthropod-and-insect-bites-repellents-and-other-measures?source=search_result&search=prevention+arthropod+insect+bites+repellent&selectedTitle=2~150). Updated March 17, 2016; Accessed June 6, 2016.

<sup>3</sup> Centers for Disease Control and Prevention. Zika virus: prevention. <http://www.cdc.gov/zika/prevention/>. Updated June 21, 2016. Accessed July 13, 2016.

<sup>4</sup> Insect repellents. *Med Lett Drugs Ther*. 2016;58(1498):83.

<sup>5</sup> American Academy of Pediatrics. 2016 summer safety tips. <https://www.aap.org/en-us/about-the-aap/aap-press-room/news-features-and-safety-tips/pages/Summer-Safety-Tips.aspx?nfstatus=401.401&nftoken=00000000-0000-0000-0000-000000000000&nfstatusdescription=ERROR:+No+local+token>. Accessed June 14, 2016.

<sup>6</sup> Nasci RS, Wirtz RA, Brogdon WG. Chapter 2: Protection against mosquitoes, ticks, and other arthropods. In: The Yellow Book Online. Atlanta, GA: Centers for Disease Control and Prevention. <http://wwwnc.cdc.gov/travel/yellowbook/2016/the-pre-travel-consultation/protection-against-mosquitoes-ticks-other-arthropods>. Published July 10, 2015. Accessed June 16, 2016.

<sup>7</sup> United States Environmental Protection Agency. Repellent-treated clothing. <https://www.epa.gov/insect-repellents/repellent-treated-clothing#Meaning%20of%20EPA%20registration>. Updated March 29, 2016. Accessed July 13, 2016.

<sup>8</sup> Fradin MS, Day JF. Comparative efficacy of insect repellants against mosquito bites. *N Engl J Med*. 347;1:13-18.

## MA Program Fees For Covered Mosquito Repellents by Active Ingredient and Product Description

Active Ingredient	Concentration	Product Name	Package Size	UPC	NDC	Quantity Limit	Fee
DEET	7%	Cutter Skinsations Insect Repellent	6 oz/177 ml	016500540106	16500-0540-10	177 ml/6 days	\$4.00
	15%	OFF! FamilyCare Insect Repellent I Smooth & Dry	2.5 oz/71 gm	046500710377	46500-0710-37	71 gm/2 days	\$4.00
	15%	OFF! Active Insect Repellent I	6 oz/170 gm	046500018107	46500-0018-10	170 gm/6 days	\$4.00
	25%	OFF! Deep Woods Insect Repellent V	6 oz/170 gm	046500018428	46500-0018-42	170 gm/6 days	\$4.00
	25%	OFF! Deep Woods Insect Repellent VIII Dry	4 oz/113 gm	046500717642	46500-0717-64	113 gm/4 days	\$4.00
	25%	Cutter Backwoods Insect Repellent	6 oz/170 gm	071121962805	71121-0962-80	170 gm/6 days	\$4.00
	25%	Repel Sportsmen 25% Spray	6.5 oz/184 gm	011423941375	11423-0941-37	184 gm/6 days	\$4.00
	40%	Repel Sportsmen Max 40% Spray	6.5 oz/184 gm	011423003387	11423-0003-38	184 gm/6 days	\$4.00
Picaridin	20%	Natrapel 20% Continuous Spray	6 oz/177 ml	044224068712	44224-0068-78	177 ml/6 days	\$4.00
		Sawyer Premium Insect Repellent	4 oz/118 gm	050716005448	50716-0005-44	118 gm/4 days	\$4.00
Permethrin	0.5%	Amerisource Lice Bedding Spray	5 oz/142 gm	024385063325	24385-0633-25	142 gm/5 days	\$4.00
		CVS Lice Bedding Spray	5 oz/142 gm	050428574954	50428-5749-54	142 gm/5 days	\$4.00
		Good Neighbor Lice Bedding Spray	5 oz/142 gm	087701009422	87701-0094-22	142 gm/5 days	\$4.00
		Leader Bedding 0.5% Spray	5 oz/142 gm	037205016628	37205-0166-28	142 gm/5 days	\$4.00
		Perrigo Lice Bedding Spray	5 oz/142 gm	070030014861	70030-0148-16	142 gm/5 days	\$4.00
		RID Home Lice Control Spray	5 oz/141.8 gm	074300000421	74300-0004-21	141.8 gm/5 days	\$4.00
		Rite Aid Lice Bedding Spray	5 oz/142 gm	011822988550	11822-9885-50	142 gm/5 days	\$4.00
		Sunmark Lice Bedding Spray	5 oz/142 gm	049348023787	10939-0557-33	142 gm/5 days	\$4.00
		Walgreens Stop Lice In-Home Spray	5 oz/142 gm	011917016475	11917-0164-75	142 gm/5 days	\$4.00