

TIP SHEET For Local Boards of Health

Alpha-gal Syndrome Case Investigations

Disease: Unlike other tickborne diseases such as Lyme disease, Anaplasmosis, and Babesiosis, Alpha-gal syndrome (AGS) is a serious, potentially life-threatening allergy to alpha-gal which can develop after a tick bite. Alpha-gal is a molecule (galactose- α -1,3-galactose) that is naturally produced in the bodies of most mammals, like cows and pigs, but not people. AGS reactions can be different from person to person and symptoms can range from mild to severe. Symptoms can include hives or itchy rash, nausea, vomiting, diarrhea, stomach pain, angioedema (swelling) or life-threatening anaphylaxis. Symptoms generally appear 2-10 hours after exposure to foods or other products containing alpha-gal.

Transmission & Incubation Period: AGS in the United States is most commonly associated with the bite of the lone star tick, *Amblyomma americanum*. When a tick bites, it can transfer alpha-gal from its saliva into a person's blood. The body's immune system can identify alpha-gal as a threat and trigger an allergic reaction. The incubation period is weeks to months after being bitten by a tick.

Alpha-gal Syndrome (AGS)	
Initial Steps for LBOH	<p>LBOHs are responsible for completing the Administrative, Demographic, Clinical, and Risk/Exposure Question Packages as part of the AGS investigation.</p> <ul style="list-style-type: none"> LBOH should monitor the “LBOH Notification for Routine Disease” workflow, where new AGS events will appear following electronic reports of positive AGS lab results or provider reporting forms with presumptive laboratory evidence. Complete Admin Steps 1-3 to begin. Familiarize yourself with the disease: Alpha-gal Syndrome (AGS) Mass.gov
Case Follow-up	<p>LBOH ensures data completion. It is expected that all question packages in MAVEN be completed for every case. The information the case provides is valuable to better understand this emerging condition and its burden in Massachusetts.</p> <p>It is vital that information related to the case’s AGS reaction be documented, including:</p> <ul style="list-style-type: none"> Clinical Question Package: <ul style="list-style-type: none"> AGS signs or symptoms during a reaction, food consumption within 2-10 hours of AGS reaction, signs or symptoms within 2 hours of receiving pharmaceutical or medical products, occurrence of anaphylaxis due to an AGS reaction Risk Question Package: <ul style="list-style-type: none"> Tick bite within the previous 6 months, travel within or outside of MA in the previous 6 months, recipient of blood transfusion or tissue/organ transplant <p>To obtain this information:</p> <ol style="list-style-type: none"> Call the provider or infection preventionist (IP) at the hospital where the patient was seen to collect clinical information (this information can be found under “Lab Facility” or “Ordering Provider” in the Lab tab in MAVEN). Call the case to complete all remaining questions.
Control Measures	<ul style="list-style-type: none"> No public health or control measures (including contact tracing, isolation, or quarantine) are necessary for AGS.
Case Education	<p>Prevention of AGS should focus on avoiding tick bites.</p> <ul style="list-style-type: none"> Taking steps to avoid tick bites is the single most important prevention strategy to reduce the risk of development and persistence of AGS. Tick bite prevention recommendations are the same for lone star ticks as they are for other tick species in Massachusetts. More information can be found at Tick Prevention Mass.gov. <p>Note: AGS is an emerging condition, it is not our role as public health to advise on treatment. The case should be referred to their doctor for treatment questions or concerns.</p>
Case Review and Sign-Off	<ul style="list-style-type: none"> Once Clinical and Risk/Exposure Question Packages have been completed, you may complete Steps 4-5 in the Administrative Question Package to sign off on the case.

Please call 617-983-6800 if you have any questions regarding case follow-up.