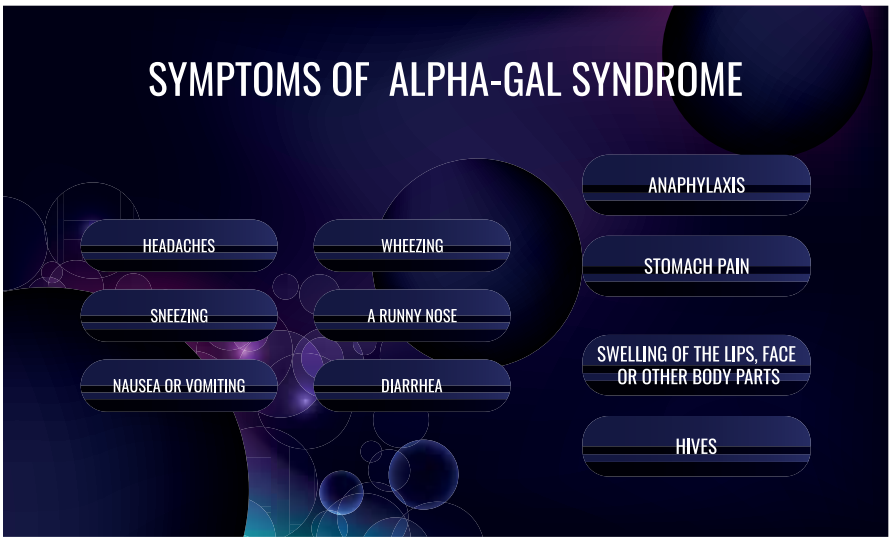
Keeping the Patient with Alpha-gal Safe

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Alpha-gal syndrome is an allergy to non-primate mammalian meat and products that contain components derived from red meat, such as medications or skin care products. It is associated with the bite of ticks, most commonly the Lone Star tick, and less commonly the Blacklegged tick and the Western Blacklegged tick (Centers for Disease Control and Prevention, 2025). An IgE antibody triggers the allergic reaction to the sugar, oligosaccharide galactose-α-1,3-galactose (α-gal), which is found in the tissues, cells, and fluids of non-primate mammals (Galili & Avila, 1999). It transmits to the human host through the tick's saliva (CDC, 2025). Alpha-gal syndrome is commonly known as a red meat allergy or a mammalian meat allergy. However, it goes beyond just eating red meat, especially when it comes to medication, medical supplies, and implants. Many of these products may potentially contain ingredients sourced from mammals, such as gelatin, or contain residual byproducts, including bovine calf serum, in the varicella vaccine.

According to the CDC, there were 110,000 suspected cases of alpha-gal between 2010 and 2022. Since alpha-gal is not notifiable to the CDC, the actual number of cases in the U.S. is unknown, but as many as 450,000 people could be affected (CDC, 2025). Therefore, the role of nurses in carefully screening their patients for alpha-gal or an allergy to red meat and being aware of the complexities of alpha-gal, as well as the numerous medications and supplies that could potentially cause a reaction in patients with alpha-gal, is of utmost importance and cannot be overstated.

Alpha-gal is different from most food allergies in that the reaction to red meat (beef, pork, lamb, venison) occurs between 3 and 6 hours post-exposure. People who begin to experience this reaction to red meat may have been able to tolerate eating it for years beforehand. Because of this, patients may not even realize it is a reaction to food. Additionally, physicians may not be routinely aware of this delayed reaction to alpha-gal, which can lead to a prolonged diagnosis (Commins, 2020).

According to Commings (2020), "The lack of consistent reactions is, in itself, almost a diagnostic hallmark" (Table 1). It is unclear whether a reaction can develop after a single exposure, and the reactions do not appear to follow a consistent pattern. Symptoms can range from pruritus, hives, angioedema, to anaphylaxis. Alternatively, they can be associated with gastrointestinal issues, such as abdominal cramping, diarrhea, and vomiting, without any accompanying respiratory symptoms (Commins, 2020). It's crucial for nurses to understand that individuals with a higher alpha-gal titer may be more susceptible to severe reactions to certain medications than those with a lower titer (Hawkins et al, 2021), underscoring the potential severity of these reactions.

Allergen avoidance can improve symptoms, but it is problematic due to the wide range of foods and products derived from mammals. Many of these products may not list all the ingredients or state whether the ingredients themselves were derived from or exposed to mammalian byproducts.

Suppose a patient reports an allergy to red meat or alpha-gal. In such cases, nurses must be aware of the potential medical products that may contain small amounts of alpha-gal-containing additives, stabilizers, or coatings (CDC, 2025). An example is the varicella vaccine, which contains hydrolyzed gelatin as a stabilizer and a residual byproduct of bovine calf serum (Children's Hospital of Philadelphia, 2024). Lists of vaccine excipients are available via the CDC's Pink Book or the Institute for Vaccine Safety. There are also specific medical products derived from animals, such as heart valves (from pigs and cows), monoclonal antibodies, heparin, thrombin, and some antivenoms. Other ingredients to look out for include gelatin, glycerin, magnesium stearate, and bovine extract (CDC, 2025). A helpful online resource is Alpha-gal Information, which provides information for both healthcare providers and patients.

Also, consider that the sources of certain ingredients may need to be verified

by the manufacturer. Ingredient sources may be obscure because the manufacturer is unsure whether the source derives from plant or animal origins. Additionally, manufacturers may not specify the amounts of alpha-gal in these ingredients (Leder et al,2024).

Having a general awareness of the subtle characteristics of alpha-gal syndrome can help nurses keep their patients safe and informed. Not knowing the sources of ingredients and the amounts of alpha-gal in them, combined with the varying degree of patient sensitivity, can be a complex course for nurses to navigate when caring for a patient with alpha-gal. However, with clear communication and meticulous documentation with the medical team, nurses can take control of the situation, mitigate the severity of reactions, and keep their patients safe. ■

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The Growing Need for Home Health Care and the Education It Provides

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As the healthcare landscape continues to evolve, home health care has emerged as one of the most essential and effective ways to deliver quality care to patients in the comfort and safety of their own homes. With an aging population, increased prevalence of chronic illnesses, and the desire for more personalized care, the demand for home health services has never been greater.

Meeting Patients Where They Are

Home health care serves a diverse range of individuals—seniors recovering from surgery, patients managing chronic diseases like diabetes or COPD, and individuals with disabilities who require skilled nursing care, therapy, or assistance with daily living. By