Radon Exposure: Using the Spectrum of Prevention Framework to Increase Healthcare Provider Awareness

Jane Worrell, MSN, RN, OCN®, Phillip Gibson, BA, MS, and Deborah "Hutch" Allen, PhD, RN, CNS, FNP-BC, AOCNP®

The radioactive properties of radon have been known for decades, but the risks of exposure have been understated in most professional healthcare curriculums. Healthcare providers in areas with low levels of radon exposure may not consider radon to be a main source of concern in the development of lung and other cancers. Just as nurses counsel patients to avoid tobacco exposure, they should advocate that patients have their homes tested for radon. This article aims to increase radon awareness and address opportunities for providers to work toward various objectives to reduce radon exposure.

At a Glance
- Radon is the second leading cause of lung cancer in the United States and worldwide.
- Prevention activities are needed to increase awareness of the risks of radon exposure and promote mitigation.
- Healthcare providers are trusted sources of information for patients and consumers and should recommend home radon testing, even after a diagnosis of lung cancer.

Radon exposure poses a risk for the development of lung cancer in nonsmokers and smokers. Radon exposure is considered to have an intermediate risk for lung cancer development (Moyer, 2014). About 15%–20% of newly diagnosed patients with lung cancer are nonsmokers (Wakelee et al., 2007). However, the synergistic effect of smoking and radon exposure greatly increases the risk of lung cancer (Wakelee et al., 2007). According to the Agency for Toxic Substances and Disease Registry (2011), the risk of radon to a smoker is estimated to be 10–20 times greater than it is to a nonsmoker.

Screening for lung cancer may be recommended when exposure is combined with two of the following high risk factors: being aged 55–80 years, smoking at least a pack of cigarettes a day for at least 30 years or two packs a day for 15 years, or still smoking, or having stopped within the past 15 years (Moyer, 2014). Medicaid and Medicare, along