This article provides oncology nurses with an overview of high-dose-rate brachytherapy for the treatment of prostate cancer. Many treatment options are available for men diagnosed with prostate cancer. Oncology nurses must know about this potential treatment option so they can provide appropriate education, support, and self-care management advice. Program requirements, patient eligibility, and essential planning recommendations are discussed.

At a Glance
- High-dose-rate brachytherapy is a viable treatment option for men diagnosed with prostate cancer.
- Brachytherapy has a more favorable toxicity profile in some cases.
- A multidisciplinary approach to program planning is essential to success and optimal patient outcomes.

Brachytherapy is the temporary or permanent placement of radioactive sources within or near a tumor. It also is known as internal RT or implant therapy and offers the advantage of delivering a high dose of radiation to a specific tumor volume, with a rapid falloff in dose to adjacent normal tissues. Brachytherapy has been used since the early 1900s, following the discovery of radium by Marie and Pierre Curie (Dunne-Daly, 1997). The first reported prostate brachytherapy was in 1910 and used a radium source inserted through a urethral catheter. Radiation safety issues associated with handling the isotope and complications observed with the crude implantation technique soon caused the procedure to fall out of favor (Zelefsky, Valicenti, Goodman, & Perez, 2004). In the early 1960s, seeds were placed directly into the prostate with the retropubic, “free-handed” approach.