

# Factors Affecting Patient Selection for Prostate Brachytherapy: What Nurses Should Know

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Prostate brachytherapy commonly is used to treat prostate cancer. Although this treatment is very effective, predictable postoperative morbidities exist that primarily involve changes in bowel and urinary habits and sexual function (Merrick, Wallner, & Butler, 2003b). Careful patient selection can result in a decreased incidence of postoperative morbidities.

Radiation oncologists consider many factors when determining whether a patient is a suitable candidate for prostate brachytherapy. Factors include prostate size, the presence of obstructive urinary symptoms, previous transurethral resection of the prostate (TURP), median lobe hyperplasia, transition zone volume, age, obesity, tobacco use, diabetes mellitus, inflammatory bowel disease, pubic arch interference, adverse pathologic features, and elevated prostatic acid phosphatase levels. Controversy exists regarding which factors truly are contraindications for prostate brachytherapy. Determining which radioactive isotope is used and whether a patient needs supplemental therapies, such as external beam radiation therapy and/or androgen deprivation therapy, also is a consideration. Through continued research, suitable criteria can be developed to determine acceptable candidates for prostate brachytherapy.

Nurses must stay up-to-date regarding the increasing body of knowledge in this area to

Prostate brachytherapy is a proven treatment for clinically localized prostate cancer; however, many clinicians have multiple misconceptions regarding patient selection criteria. Although most patients are candidates for the procedure, contraindications do exist. This article examines criteria for patient selection and the need for adjuvant therapies, proposes management philosophies, and discusses the impact of each on treatment decisions. Nurses' role in the decision-making process and how they can facilitate patients and families in making informed choices also are discussed. Clinical studies seek to further define patient selection criteria and examine optimal choices for adjuvant treatment and isotope preference. Expanding the knowledge base of nurses helps enhance patient care.

competently deliver patient information and care. By being aware of the risk factors for individual patients, nurses can adapt a plan of care to fit each one.

## Prostate Factors

### Size

Traditionally, patients with large prostates (i.e., volume > 50 cm<sup>3</sup>) have not been considered to be candidates for prostate brachytherapy because of the possibility of increased postoperative urinary symptoms, such as urinary retention, dysuria, and urgency. These complications are caused by the higher number of seeds required to be inserted into a larger prostate. Prostate size

is determined via transrectal ultrasound, which visualizes and measures the prostate gland. The technical difficulty of seeding a large-volume prostate puts patients at higher risk for acute and long-term urinary difficulties. Before brachytherapy can be considered, patients with large-volume prostates are offered androgen deprivation therapy to shrink the prostate. This cytoreduction usually takes three months and allows for an overall improved implant. Patients who present with small-volume prostate glands (i.e., < 20 cm<sup>3</sup>) have shown no difference in urinary morbidity in several studies (Merrick, Butler, Dorsey, & Lief, 2001;

Merrick, Butler, Lief, & Dorsey, 2000; Merrick, Butler, Wallner, Galbreath, & Lief, 2003). In addition, studies have shown that patients with larger prostate glands can be implanted safely without subsequently experiencing an overabundance of urinary dysfunction (Merrick et al., 2000; Merrick, Butler, Wallner, Galbreath, et al., 2003;

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