

Five Things Physicians and Patients Should Question

1 Don't initiate whole breast radiotherapy as a part of breast conservation therapy in women age ≥ 50 with early stage invasive breast cancer without considering shorter treatment schedules.

- Whole breast radiotherapy decreases local recurrence and improves survival of women with invasive breast cancer treated with breast conservation therapy. Most studies have utilized “conventionally fractionated” schedules that deliver therapy over 5–6 weeks, often followed by 1–2 weeks of boost therapy.
- Recent studies, however, have demonstrated equivalent tumor control and cosmetic outcome in specific patient populations with shorter courses of therapy (approximately 4 weeks). Patients and their physicians should review these options to determine the most appropriate course of therapy.

2 Don't initiate management of low-risk prostate cancer without discussing active surveillance.

- Patients with prostate cancer have a number of reasonable management options. These include surgery and radiation, as well as conservative monitoring without therapy in appropriate patients.
- Shared decision-making between the patient and the physician can lead to better alignment of patient goals with treatment and more efficient care delivery.
- ASTRO has published patient-directed written decision aids concerning prostate cancer and numerous other types of cancer. These types of instruments can give patients confidence about their choices, improving compliance with therapy.

3 Don't routinely use extended fractionation schemes (>10 fractions) for palliation of bone metastases.

- Studies suggest equivalent pain relief following 30 Gy in 10 fractions, 20 Gy in 5 fractions, or a single 8 Gy fraction.
- A single treatment is more convenient but may be associated with a slightly higher rate of retreatment to the same site.
- Strong consideration should be given to a single 8 Gy fraction for patients with a limited prognosis or with transportation difficulties.

4 Don't routinely recommend proton beam therapy for prostate cancer outside of a prospective clinical trial or registry.

- There is no clear evidence that proton beam therapy for prostate cancer offers any clinical advantage over other forms of definitive radiation therapy. Clinical trials are necessary to establish a possible advantage of this expensive therapy.

5 Don't routinely use intensity modulated radiotherapy (IMRT) to deliver whole breast radiotherapy as part of breast conservation therapy.

- Clinical trials have suggested lower rates of skin toxicity after using modern 3-D conformal techniques relative to older methods of 2-D planning.
- In these trials, the term “IMRT” has generally been applied to describe methods that are more accurately defined as field-in-field 3-D conformal radiotherapy.
- While IMRT may be of benefit in select cases where the anatomy is unusual, its routine use has not been demonstrated to provide significant clinical advantage.

How This List Was Created

Following approval of the participation of the American Society for Radiation Oncology (ASTRO) in the *Choosing Wisely* campaign, a survey was sent to ASTRO committees and panels related to health policy, government relations, and clinical affairs and quality in order to identify potential items for inclusion in the list. A work group, comprised of seven physicians drawn from these three areas, was also selected and convened. The work group members were asked to pick their top eight items from the total of 34 topics that had been suggested in the initial survey. The results were tabulated and a list of the highest scoring items generated, creating a short list of 13 draft items.

Three conference calls were subsequently held to further refine the list and finalize the wording of the items based on input from ASTRO's Board of Directors. A literature review was conducted for each topic by ASTRO staff and each work group member took the lead on writing text and selecting references for one or more draft items. The final items for submission were selected by ASTRO's Board of Directors. ASTRO's disclosure and conflict of interest policy can be found at: www.astro.org.

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