

## Omitting radiotherapy in select situations

### Brief Synopsis:

Advances in imaging, surgery, pathology, and systemic therapy have rendered certain patients with breast cancer at sufficiently low risk of local recurrence that they may reasonably consider the omission of radiation therapy to reduce toxicity and burden. For decades, clinical trials have been conducted to try to identify the population of patients in whom the risk of recurrence in the absence of radiotherapy is sufficiently small that omission of radiotherapy might reasonably be considered after breast conserving surgery. Although trials to date, including ER+ patients selected based upon clinicopathologic characteristics alone, have largely proven unsuccessful, guidelines do currently identify older women with early-stage, node-negative, hormone receptor-positive disease to be candidates for radiotherapy omission after lumpectomy. This talk will review historical trials evaluating the role of radiotherapy after breast conserving surgery as well as exciting ongoing trials leveraging our growing appreciation of tumor biology to identify a population of patients who may reasonably consider omitting radiotherapy after breast conserving surgery.