Regionalization of testicular cancer diagnosis and treatment planning was effective and increased satisfaction among general oncologists and urologists and depended on leadership at multiple levels and technology/workflow alignment.

Andrea L Harzstark, MD; Andrea Altschuler, PhD; Laura B Amsden, MPH, MSW; Mubarika Alavi, MS; Liyan Liu, MS; Joseph C Presti, MD; Leslie C Manace Brenman, MD; Lauren C Walker, MPH; Rene R Ryken, RN; Aileen C De Mucha Flores, MSN; Craig Nichols, MD; Lisa J Herrinton, PhD

|  |  |
| --- | --- |
| Challenge | **Testicular cancer is a rare cancer; it is challenging for clinicians to keep up with National Comprehensive Cancer Network (NCCN) guidelines for low-volume cancers to minimize under or over-treatment.** |
| Existing Evidence | For patients with stage I seminoma, surveillance is recommended over adjuvant therapy, but at baseline in 2015, 52% of patients with testicular cancer in Kaiser Permanente Northern California (KPNC) received adjuvant therapy. |
| Target Population | Patients with a new diagnosis of testicular cancer in KPNC. |
| Intervention or Exposure | Development of an algorithm for rapid case identification and regionalized review of cases with recommendations. |
| **Outcomes/Key Findings** | **By 2018, the case finding algorithm identified 97% of cases; 92% were reviewed by the panel.** The number of patients undergoing adjuvant therapy decreased from 52% in 2015 to 13% in 2018. Panel review changed care plans in 19 of 131 patients (14.5%) after pathology and radiology re-reviews in the first year alone. Stakeholders had high levels of satisfaction with the case review.  Surveillance tracking was more challenging with complexities of the NCCN follow-up algorithms for testicular cancer |
| **Resulting Action/Change** | **All new cases of testicular cancer in KPNC are now reviewed by the panel with recommendations provided. There was a change in workflow so that subspecialized genitourinary pathologists review non-seminoma cases.** For surveillance tracking, learnings gained from using Leavitt’s people-process technology framework is aiding re-design of surveillance tracking. |
| Additional Recommendations | **These findings support similar regionalization efforts for rare cancers, particularly those with complex treatment and/or surveillance protocols. Learnings about implementation pitfalls can be generalized to other implementations involving regionalization of oncology.** |
| Implementation Tools | Rapid case ascertainment algorithm, templated note with templated dotphrases for recommendations. |
| Implementation Measurement | Percentage of cases at case conference; stage I seminoma managed with surveillance post-orchiectomy, number of patients whose care plan was altered by case conference review. |
| Reference | Proportion of 177 Stage 1 seminoma patients who, after orchiectomy, underwent observation rather than adjuvant chemotherapy or radiation therapy by year of diagnosis, Kaiser Permanente Northern California, 2015-18, %    Harzstark et al, ASCO Quality Symposium 2020  Publication pending, Harzstark et al, JCO CCI |