To understand and characterize the utilization of active surveillance as a treatment option for men with low risk prostate cancer. Among Pennsylvania Urologic Regional Collaborative (PURC) providers from nine major urology practices from across Southeastern Pennsylvania and New Jersey.

1. Survey urology providers in the PURC cohort regarding the utilization of AS.
2. Determine if there is a difference in the utilization of AS in relation to years of practicing experience.
3. Characterize the utilization of AS among PURC providers using the PURC data registry.

Methods

1. Population/Sample and Design:
   - Providers practicing at 10 urology practices across the Southeastern Pennsylvania region and New Jersey who are actively participating in PURC.
   - Descriptive survey study; 12-item qualitative survey with the following themes:
     - Identification of AS candidates
     - Confirming AS eligibility
     - Follow-up patients on AS

2. Population/Sample and Design:
   - AS patients whom received care between July 2015 and March 2016 at 1 of the 9 urology practices in the Southeastern Pennsylvania region and New Jersey participating in PURC.
   - Analysis of AS tests from the PURC ArborMetrix registry for all patients who obtained care at any of the PURC provider practices.

Results

Statistically significant differences:
- Providers with >5 years surveillance experience report a patient age below which they would typically offer AS to compared with providers with ≤5 years urology experience (p = 0.004).
- Providers with >5 years surveillance experience perform MRI more often during the first two years than providers with ≤5 years surveillance experience. Those with >10 years (49%) never do this while providers ≤5 years (86%) perform it as little as every 3 months (3.2%; 9.3%, p = 0.007).

PURC Data Registry Results: 249 AS patients (July 2015 – March 2016)

<table>
<thead>
<tr>
<th>Test</th>
<th>0–12 mos</th>
<th>1–24 mos</th>
<th>25–36 mos</th>
<th>37–60 mos</th>
<th>61–90 mos</th>
<th>91–120 mos</th>
<th>Total Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSA Test</td>
<td>189</td>
<td>23</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>83%</td>
</tr>
<tr>
<td>Only PSA Post</td>
<td>46</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>26%</td>
</tr>
<tr>
<td>Only MRI Post</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Only MRI + PSA</td>
<td>123</td>
<td>9</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>54%</td>
</tr>
<tr>
<td>Complete Post</td>
<td>45</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>22%</td>
</tr>
</tbody>
</table>

Discussion

1. Decision making tool and aids not frequently used
   - Understanding of the entire decision making process between the patient and the provider for AS is needed.
2. Management of localized prostate cancer, including AS should be made with a standardized guideline in conjunction of an individualized approach after careful risk assessment.
3. Monitoring should be conducted directly on the need for ongoing surveillance as well as the disease progression that may lead to a recommendation for definitive treatment.
4. Variety of criterion to identify patients for AS variation in AS follow-up surveillance.
5. A multi-institutional, prospective trial comparing criteria may help refine the best selection criterion for AS.
6. Assisting and identifying adherence barriers for follow-up tests will provide essential information for understanding the implications of existing variation in the use of AS.
7. Providers should use a protocol for surveillance at a minimum of 3 months with a minimum of 6 months between any of the existing evidence, while collecting information from more long-term studies is needed.
8. Repeat biopsy to confirm AS eligibility is less than optimal.
9. Assisting and identifying the barriers from both the provider and patients’ perspective.
10. Limited utilization of MRIs and biomarkers.
   - Promotional studies and longer follow-up is warranted.

Conclusion

AS is a safe treatment option for men with low risk prostate cancer.
- Immediate definitive treatment of men meeting low risk criteria may result in an unnecessary number of treatments in these selected patients.
- Criteria used to identify men with low risk prostate cancer varies but is rather similar.
- Confirming AS eligibility and follow up tests for patients on AS also varies.
- This study provided the landscape of the current utilization of AS among PURC providers which in turn will facilitate AS initiatives.
- Understanding the current utilization of AS as a treatment option for men with low risk prostate cancer is important prior to any intervention implementation.
- Addressing barriers to implementing a standardized AS guideline or protocol also must be addressed prior to implementing an intervention.
- Educational programs aimed to increase health professional and community awareness of AS can initiate the breakdown of some of these barriers.
- Careful and thorough patient monitoring in critical of AS and the responsibility must be on both the patient and provider to ensure that appropriate tests are performed at the appropriate time intervals.
- Effectiveness of any proposed interventions to improve the utilization and adherence of AS is not only dependent on the intervention but must include an ongoing assessment of the potential progression of the disease.

Implications and Recommendations

- Active surveillance (AS) focuses on the prevention of overtreatment by selecting appropriate patients with low risk prostate cancer characteristics and aggressively monitor them over time to detect prostate biopsy and serial PSA testing to recognize any potential reclassification that would justify deferred definitive treatment, with curative intent if the cancer progresses.
- Men with low risk prostate cancer who go on AS, 10-15 years after their diagnosis, have very low rates of their disease spreading or dying of prostate cancer.
- Studies shown 5-66% of men during the 10 years after their diagnosis whom stayed on AS do not warrant definitive treatment.
- Research has shown a decision not to intervene in a slowly progressing prostate cancer while carefully observing the patient has not increased mortality but positively maintained the patient’s quality of life and saved million in health care costs.
- Lack of consensus regarding prostate cancer screening guidelines has created confusion among the Pennsylvania public and the medical community. Some providers champion early screening with Prostate-Specific Antigen (PSA) testing while others discourage PSA testing as an unnecessary and potentially harmful exposure.
- Routine use of PSA testing:
  - Overdiagnosis and overtreatment for low risk prostate cancer: estimated overdiagnosis rate is between 1-4%
  - Quality of life: treatment of overdiagnosed prostate cancer manifest to overtreatment, therefore, placebo on burden on the patient and its potential side effects.
  - Health care costs to medical organization: millions of dollars in health care costs.
  - U.S. Preventive Task Force recommended against routine PSA screenings for prostate cancer.

Active Surveillance

- Active surveillance is a safe treatment option for men with low risk prostate cancer.

Statistical Analysis

- Identification of active candidates:
  - 95% appropriately identify and offer AS.
  - 86% use provided eligibility criteria to identify AS candidates.
  - 95% use a decision making tool.

Conforming active surveillance eligibility:
- 67% perform repeat biopsy.
- 3% within months / 75% within 12 months.
- 48% utilize prostate MRI in 36% use genetic testing.

Following patients on active surveillance:
- 69% perform PSA every 6 to 12 months.
- 7% every 6 months.
- 8% perform PSA in every 3 to 12 months.
- 68% every 12 months.
- 8% perform DRE every 6 to 12 months.
- 93% within 6 months.
- 64% order Prostate MRI every 6 to 12 months.
- 32% every 12 months.

Criteria of AS definitive treatment:
- 97% for Gleason upgrading on surveillance prostate biopsy.
- 95% for using PSA kinetic.
- 9% of volume of disease on surveillance biopsy, new nodule on DRE, and new or more nodule on MRI.
- 15% for concerning genetic testing results.

Understanding the Utilization of Active Surveillance as a Treatment Option

For Men with Low Risk Prostate Cancer

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Abstract

**Purpose/Objectives:** To understand and characterize the utilization of active surveillance as a treatment option for men with low-risk prostate cancer among providers participating in the Pennsylvania Urologic Regional Collaborative (PURC).

**Design:** Descriptive survey study.

**Methods:** An electronic survey of PURC providers and analysis of PURC data registry information.

**Findings:** Survey respondents utilize active surveillance for men with low-risk prostate cancer when appropriate but there is variation of criteria used to identify potential active surveillance candidates. Survey respondents incorporate PSA testing and prostate biopsies to confirm eligibility and to follow patients but the usage of prostate MRI and genomic testing varied. The practice of repeating prostate biopsies to confirm active surveillance eligibility is also suboptimal. The data registry revealed practice patterns of PSA tests within 6 months, repeat prostate biopsy within one year, and biopsy and prostate MRI within one year.

**Conclusion:** Active surveillance is used as a treatment option when appropriate to those with low-risk prostate cancer but further investigation is warranted prior to developing standardized criteria to select appropriate men for surveillance and guidelines for following these men while on surveillance.

References


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