

# Trends in Initial Management of Prostate Cancer in New Hampshire – Reasons for Optimism?

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## INTRODUCTION

- ◆ There have been ongoing efforts to optimize the treatment of localized prostate cancer to reduce over- and under-treatment.
- ◆ These include expansion of expectant management strategies for low risk cancer, and greater consideration of aggressive therapy for clinically localized high risk cancer (rather than default hormone therapy).
- ◆ In this study, we assessed whether statewide trends in prostate cancer management reflected our growing understanding of this heterogeneous disease.

## METHODS

- ◆ Men diagnosed with clinically localized prostate cancer from 2004 to 2011 in the New Hampshire State Cancer Registry were identified (n=6203).
- ◆ Patient with recorded clinical stage, Gleason score and PSA value were included and categorized according to the D'Amico criteria.
- ◆ Patients with nodal or distant metastasis on clinical staging were excluded.
- ◆ Initial treatment modality was recorded as 'surgery', 'radiation', 'expectant management' or 'hormone therapy only'.
- ◆ Temporal trends were assessed by chi square for trend.

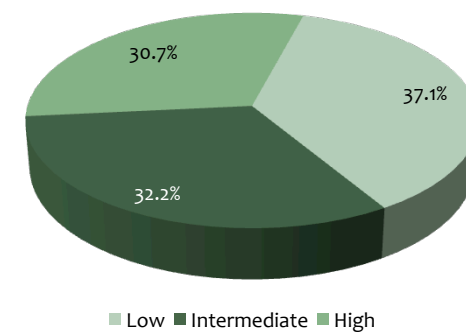
## RESULTS

Table 1. Patient Characteristics at Diagnosis

Diagnosis Year	No.	%
2004-2008	3594	57.9
2009-2011	2609	42.1
<b>Age</b>		
<50	151	2.4
50-65	2939	47.4
66-75	2279	36.7
>75	834	13.4
<b>Age Mean=65.6, SD=8.8, IQR=13</b>		
<b>Residence</b>		
Rural	2710	43.7
Urban	3475	56.0
Missing	18	0.3
<b>Marital Status</b>		
Single	463	7.5
Married	4788	77.2
Not married (divorced, separated, widowed)	720	11.6
Unknown	232	3.7
<b>Season at DX</b>		
Winter	1481	23.9
Spring	1578	25.4
Summer	1538	24.8
Fall	1603	25.8
Unknown*	3	0.0
<b>Gleason Score</b>		
≤6	3014	48.6
7	2314	37.3
8-10	864	13.9
Unknown/Not Done	11	0.2
<b>PSA Lab Value</b>		
<10	4977	80.2
10 to <20	637	10.3
20+	498	8.0
No test results (test ordered or not done)	13	0.2
Unknown if done	78	1.3
<b>PSA Mean=23.9, SD=119.7, IQR=4.2</b>		
<b>AJCC Clinical T</b>		
1	3895	62.8
2a	609	9.8
2b	233	3.8
2c+	1018	16.4
2NOS	419	6.8
Unknown	29	0.5

\*Cases with recurrence months/years later, no info as to dx month.

Figure 1. Percent of cases by d'Amico Risk\*



\*Excludes cases with unknown d'Amico Risk and cases reported only by a VA facility.

Figure 2. Percent of cases by type of initial treatment

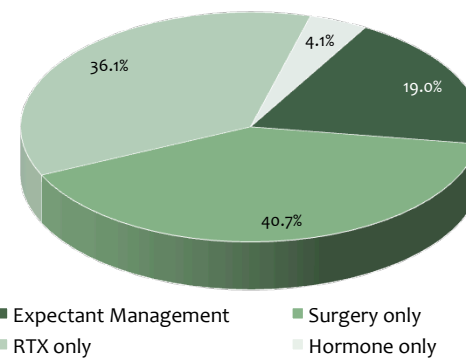


Figure 3. Percent of cases by initial treatment and d'Amico Risk

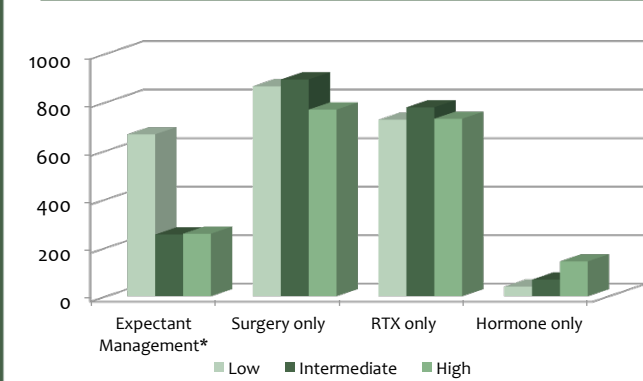


Figure 4. Percent LOW RISK by d'Amico Risk, PSA, and Gleason Score

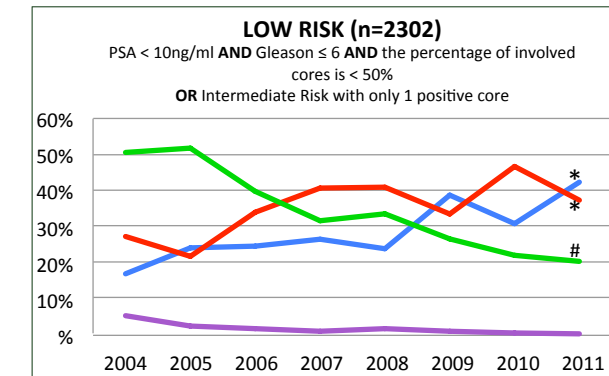


Figure 5. Percent INTERMEDIATE RISK by d'Amico Risk, PSA, and Gleason Score

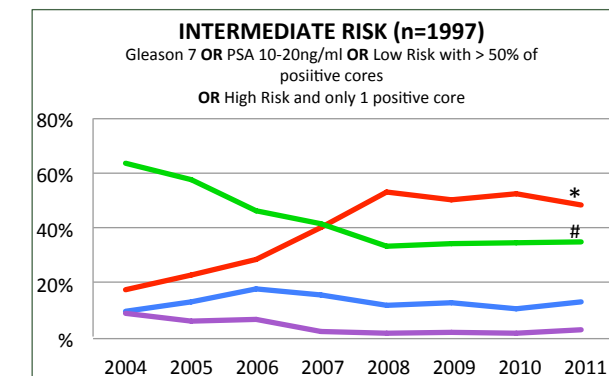
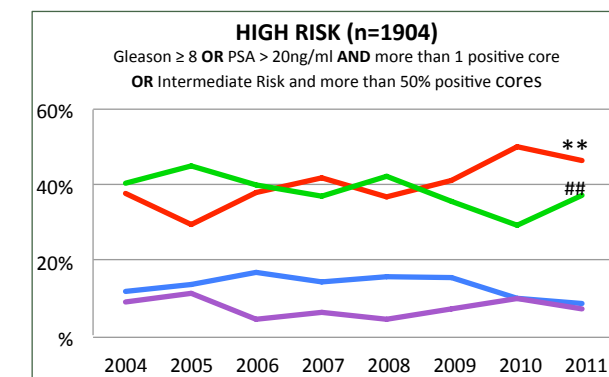


Figure 6. Percent HIGH RISK by d'Amico Risk, PSA, and Gleason Score



Legend  
 — Expectant Management — Surgery — Radiation — Hormone  
 Chi Square for trend:  
 \* Significant increase, p<0.001 # Significant decrease, p<0.001  
 \*\* Significant increase, p=0.003 ## Significant decrease, p<0.026

## DISCUSSION

- ◆ There was a significant increase in expectant management for low risk cancer, consistent with 'good practice' in patients with low risk of disease morbidity or mortality.
- ◆ Interestingly, radiation therapy declined in use for all disease risk categories.
- ◆ For high risk disease, there was increased utilization of surgical management, with a concomitant decrease in radiation therapy; this reflects a growing understanding that multi-modal local therapy may be advantageous for men with high risk cancer.
- ◆ There was a stable low rate of hormone therapy, including for high risk cancer, reflecting appropriate restrained use of this non-curative therapy.
- ◆ The diversity of treatment for prostate cancer reflects the multiple comparable options offered in AUA guidelines.
- ◆ Limitations include a retrospective analysis without additional comorbidity information, and a rural setting that may not be generalizable.

## CONCLUSION

- ◆ There are encouraging trends in the management of clinically localized prostate cancer in New Hampshire, including less potential overtreatment of low risk cancer, and rising utilization of surgery for high risk disease.
- ◆ Continued efforts to study and refine practice patterns will enable us to optimize our approaches to this heterogeneous disease.

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