



## BACKGROUND

- ❖ The Oncotype Dx Genomic Prostate Score (GPS) Assay from Genomic Health [Redwood City, CA] is a commercially available assay designed for patients diagnosed with clinically localized prostate cancer to help guide treatment.
- ❖ Genomic Health has validated this test as an independent predictor of adverse pathology, and may predict PCSM and metastases following radical prostatectomy.
- ❖ Genomic Health recommends the test for men with low- and favorable intermediate risk prostate cancer [GS 3+3 and 3+4] who meet criteria for NCCN very low, low, or intermediate risk.
- ❖ **Objective:** To investigate the use of this test in clinical practice and assess its role in clinical management

## METHODS

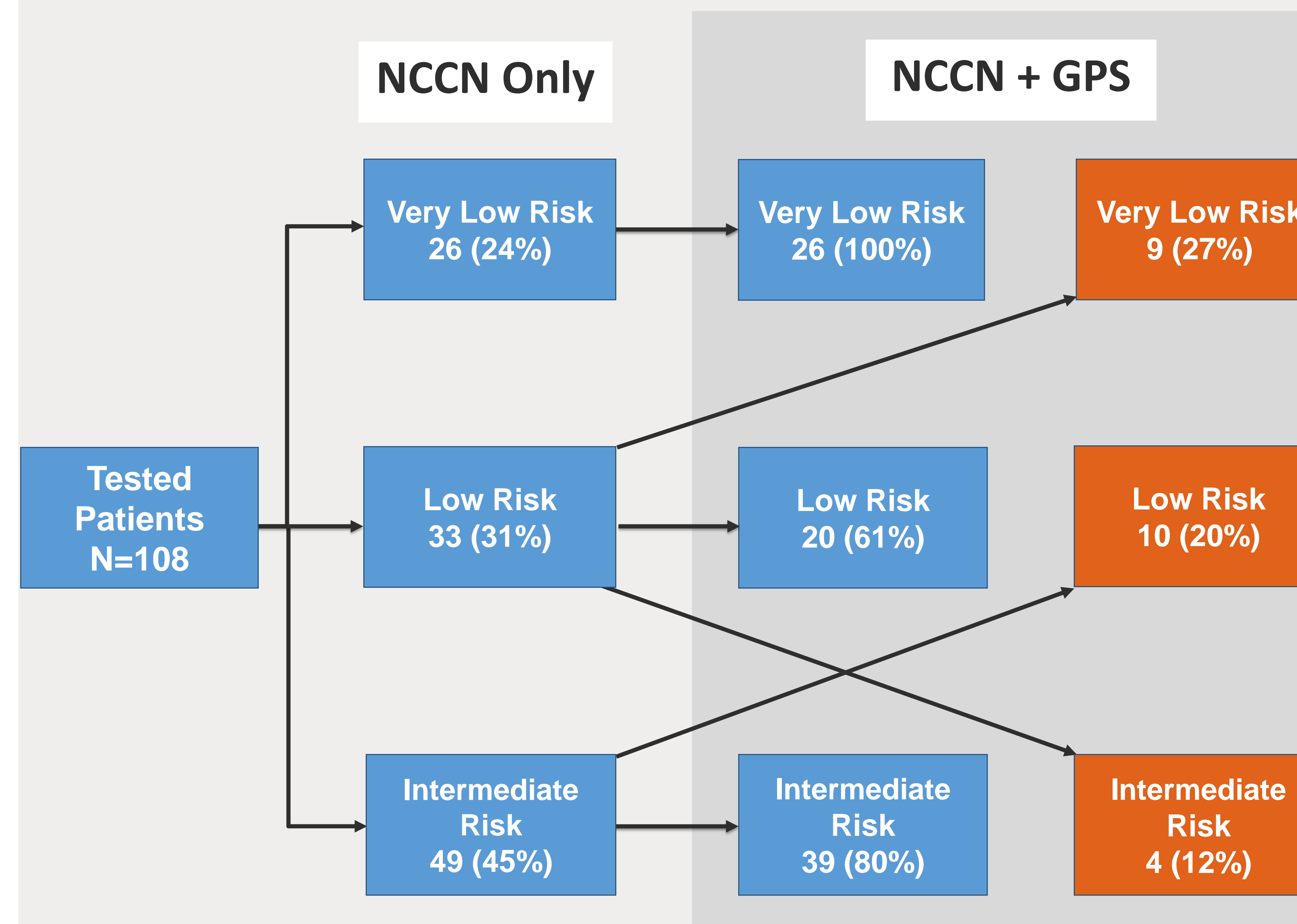
- ❖ Retrospective review of all Oncotype Dx reports received on prostate biopsies sent from a single institution to Genomic Health from 2015 to September 2017.
- ❖ Changes in patients' NCCN risk group [Very Low Risk (VLR), Low Risk (LR), or Intermediate Risk (IR)] as a result of the additional GPS were recorded.
- ❖ Decisions in disease managed were captured and included treatment by radical prostatectomy (RP), radiation therapy (XRT), active surveillance (AS), or focal therapy (FT).

## RESULTS

### Prostate Biopsies Sent for Oncotype Dx 2015 – 2017

Patients	114 (108 with sufficient tissue for testing)
Age	
Range	50-83 years
Mean	65 years
Gleason Score	
3+3=6	64% (69/108)
3+4=7	36% (39/108)
Number of Positive Cores	
Range	1-18
Mean	3.4
Max Core Involvement	
<50%	76% (82/108)
≥50%	24% (26/108)
Perineural Invasion	13 (14/108)

### Risk Group Changes with Addition of GPS



- ❖ 23 (21%) patients changed groups with the addition of GPS
  - ❖ 13 (39%) of the NCCN LR group changed to either VLR or IR
  - ❖ 10 (20%) of the NCCN IR group changed to LR

## RESULTS

- ❖ 93 men had treatment information available

### Interventions Selected Among Cohorts

NCCN + GPS	Patients	RP or XRT	AS	FT	Unknown	Comments
VLR	35	14% (5/35)	72% (25/35)	0	14% (5/35)	3 of 5 who received RP/XRT were LR by NCCN alone.
LR	30	10% (3/30)	70% (21/30)	3% (1/30)	17% (5/30)	10 men from changed from IR to LR, of which 8/10 chose AS.
IR	43	47% (20/43)	33% (14/43)	9% (4/43)	11% (5/43)	Of the 4 men who changed from LR to IR, 2 were definitively treated and 2 chose AS.

## CONCLUSION

- ❖ Nearly half of the Oncotype Dx GPS assays sent at our institution were requested on patients who were intermediate risk by NCCN guidelines.
- ❖ The Oncotype Dx GPS assay did not change the risk group for the majority of men.
- ❖ Clinicians should discuss patient expectations and treatment preferences prior to performing additional genomic testing.
- ❖ Understanding how GPS may impact management decisions will improve the cost-effectiveness of such testing.