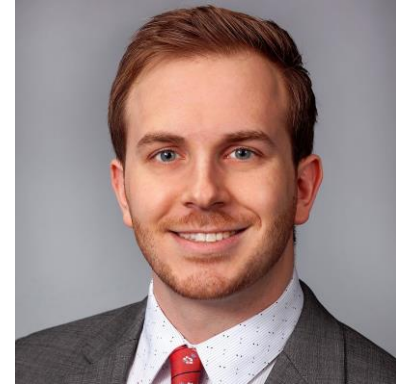


Patient-level factors are not associated with improved identification of germline pathogenic variants in men with prostate cancer



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AIM Identify patient-level factors associated with a pathogenic variant finding in men with prostate cancer undergoing germline genetic testing

METHODS



408 men with prostate cancer referred to genetic counselor



Pre- (2016/17) and post- (2018) expansion of testing guidelines, anticipating 2019 NCCN updates



Multi-gene genetic testing to identify pathogenic variants

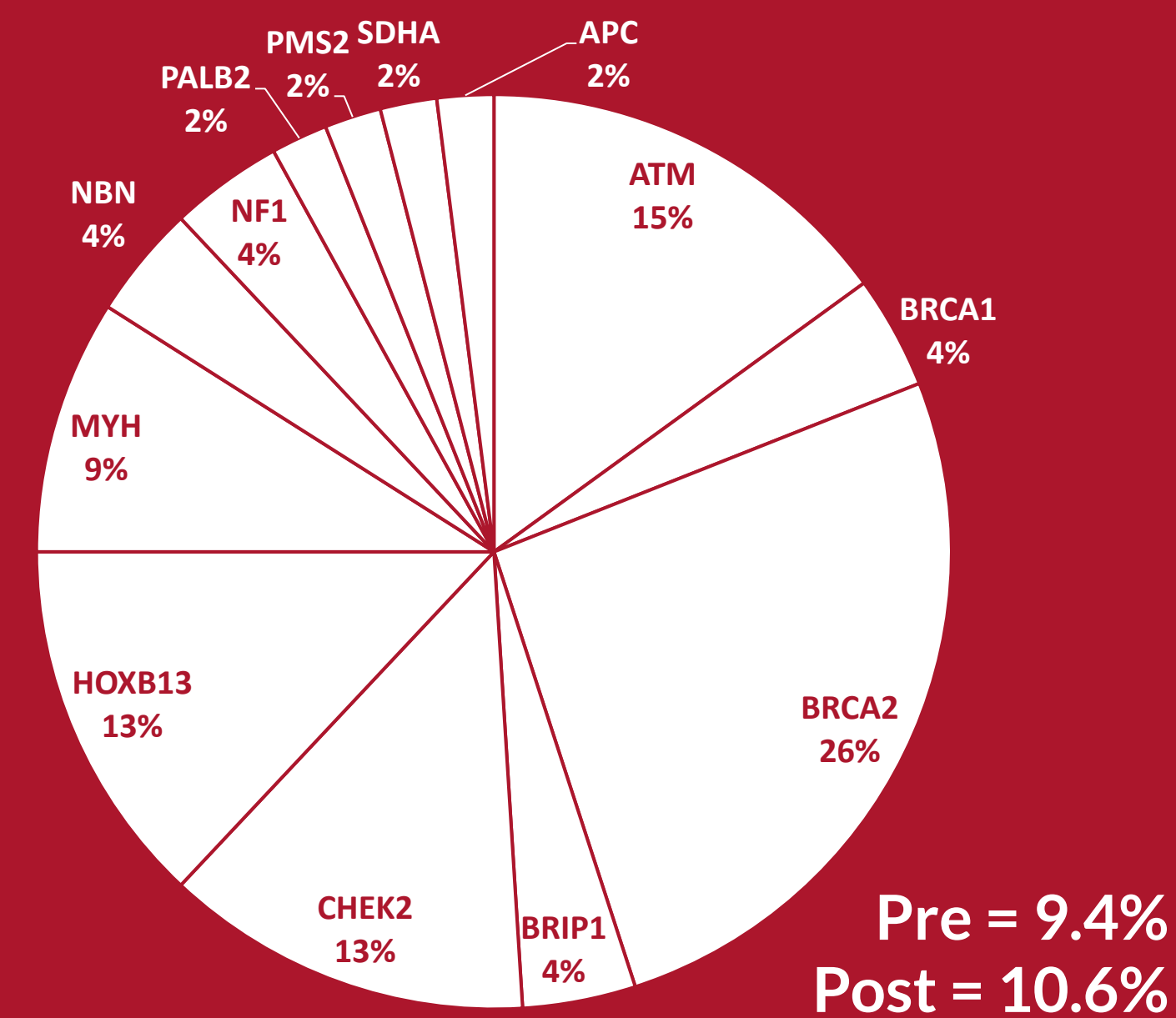


Association of patient-level factors with positive test result

After germline testing guideline expansion, rates of germline pathogenic variants detected in men with prostate cancer **remained stable**

Patient-level factors were not associated with increased odds of a positive test result

Broader NCCN criteria for germline testing in prostate cancer are warranted



Abstract

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Poster

Table 1 Testing Criteria

Clinic Referral Criteria	NCCN Risk Group					
	Favorable Intermediate	Unfavorable Intermediate	High	Very High	Regional	Metastatic
Pre-expansion						
Metastatic						✓
Gleason >7 & family history of BRCA-related cancers	✓	✓	✓	✓	✓	✓
Post-expansion						
Metastatic						✓
Lymph node positive					✓	✓
Gleason >8			✓	✓	✓	✓
Biochemically recurrent		✓	✓	✓	✓	✓
Gleason >7 & family history of BRCA-related cancers	✓	✓	✓	✓	✓	✓

Table 2 Study Population

	All patients n = 408 (100.0%)	Positive n = 42 (10.3%)	Negative n = 366 (89.7%)
Age, median (IQR), yr	61 (56–67)	61.5 (56–67.75)	61 (56–67)
Age group, n (%)			
<50	24 (5.9)	5 (11.9)	19 (5.2)
50–59	149 (36.5)	12 (28.6)	137 (37.4)
60–69	159 (40.0)	18 (42.9)	141 (38.5)
70–79	70 (17.2)	7 (16.7)	63 (17.2)
≥80	6 (1.5)	0 (0)	6 (1.6)
PSA, median (IQR), ng/mL	14.8 (7.0–53.1)	18.3 (8.6–53.3)	14.3 (6.8–50.8)
Race			
White	384 (94.1)	40 (95.2)	344 (94.0)
Other	24 (5.9)	2 (4.8)	22 (6.0)
Grade Group, n (%)			
1	51 (12.5)	5 (11.9)	46 (12.6)
2	73 (17.9)	6 (14.2)	67 (18.3)
3	58 (14.2)	5 (11.9)	53 (14.5)
4	83 (20.3)	10 (23.8)	73 (19.9)
5	128 (31.4)	15 (35.7)	113 (30.9)
Missing	15 (3.7)	1 (2.4)	14 (3.8)
NCCN risk group, n (%)			
Low	29 (7.1)	2 (4.8)	27 (7.4)
Intermediate	102 (25.0)	8 (19.0)	94 (25.7)
High	92 (22.5)	13 (30.9)	79 (21.6)
Very high	19 (4.7)	3 (7.1)	16 (4.4)
Node positive	26 (6.4)	3 (7.1)	23 (6.3)
Metastatic	139 (34.1)	13 (30.9)	126 (34.4)
Missing	1 (0.2)	0 (0)	1 (0.3)
Family history of cancer by # of relatives			
Breast and ovarian, n (%)			
0–1	369 (90.4)	36 (85.7)	333 (91.0)
2–3	31 (7.6)	4 (9.5)	27 (7.4)
≥4	8 (2)	2 (4.8)	6 (1.7)
Prostate, n (%)			
0–2	313 (76.7)	30 (71.4)	283 (77.3)
3–6	67 (16.4)	7 (16.7)	60 (16.4)
≥7	28 (6.9)	5 (11.9)	23 (6.3)
Any cancer, n (%)			
0–2	251 (61.5)	22 (52.4)	229 (62.6)
3–6	114 (27.9)	11 (26.2)	103 (28.1)
≥7	43 (10.5)	9 (21.4)	34 (9.3)
Testing era, n (%)			
Pre-expansion	96 (23.5)	9 (21.4)	87 (23.8)
Post-expansion	312 (76.5)	33 (78.6)	279 (76.2)



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