Avoid unnecessary prostate biopsy

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Screening

The U.S. Preventive Services Task Force (2008) concluded that the evidence is insufficient to assess the balance of benefit and harm of screening among men age 75 years or less, whereas screening is not recommended for men age 75 years or older.

PSA and **DRE** together

- use PSA and DRE together for prostate cancer detection
- DRE and PSA are used in prostate cancer screening, detection rates are higher with PSA than with DRE and highest with both tests together (Catalona et al, 1991).
- DRE and PSA do not always detect the
- same cancers (Okotie et al, 2007),

PSA and DRE together

- PSA improves the positive predictive value of DRE for cancer
- positive predictive value of DRE ranged from 4% to 11% in men with PSA levels of 0 to 2.9 ng/mL
- 33% to 83% in men with PSA levels of 3 to 9.9 ng/mL or more (Schroder et al, 1998).

Table 99-1.

Prostate Cancer Detection as a Function of Serum Prostate-Specific Antigen (PSA) Level and Digital Rectal Examination (DRE) Findings in Contemporary Series

PSA LEVEL (ng/mL)	DRE FINDINGS*	CANCER DETECTION RATE (%)†	CANCER YIELD ON BIOPSY (%)‡	RATE OF HIGH-GRADE CANCER ON BIOPSY (%)§
0-1	_		8.8	0.9
1-2	_		17.0	2.0
0-2	_		12	1.4
		0.7	8	
2-4	_		15-25	5.2
		2	21	
4-10	+	11	17-32	4.1
		11-27	45-51	11.7
>10	_	41	43-65	19.4
	+	31-76	70-90	50.5
<4	_		15	2.3
	+	1-3	13-17	
>4	_	14	23-38	5.8
	+	14-38	55-63	20.6

Data in table extracted from the results of contemporary series: Crawford et al, 1996; Catalona et al, 1998; Schroder et al, 1998; Thompson et al, 2004; Andriole et al, 2005.

The interpretation of PSA values should always take into account age, the presence of urinary tract infection or prostate disease, recent diagnostic procedures, and prostate-directed treatments.