

To study the effect of different treatment modalities on the patient-reported outcomes in localized prostate cancer patients

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Background

- Second most common cancer among men worldwide
- Incidence in HK = 1,484 cases in 2009 to 2,758 in 2022
- 5-year relative survival rate for localized PCa = 97.9%
- Primary treatment options
 - Active surveillance (AS)
 - Radiation therapy (RT)
 - Radical prostatectomy (RP)
 - Focal therapy (FT)
- with or without adjuvant androgen deprivation therapy

Methodology

- 866 prostate cancer patients undergoing treatments
- EPIC-26 questionnaire
 - At baseline and annually up to 5 years
- Linear mixed-effects models
 - Time
 - Other clinically relevant covariates - age, BMI, Charlson Comorbidity Index, and AUA risk group classification
 - Fixed effects for treatment modality
 - Treatment × time interaction

Results

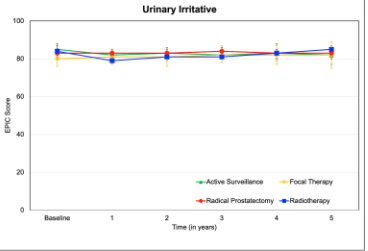
- Median follow-up: 42.81 months
- Higher PSA and age in active treatment group
- RT had a higher mean age and a lower proportion of patients in ECOG 0 at baseline

	AS (n=126)	RT (n=339)	RP (n=332)	FT (n=69)
Age (years)	68.6 ± 5.95	70.61 ± 6.25	67.35 ± 5.33	68.49 ± 5.65
BMI	24.36 ± 3.25	24.52 ± 3.16	24.71 ± 3.20	25.06 ± 2.97
FU time	36.04 ± 20.92	40.90 ± 19.47	43.40 ± 20.05	41.66 ± 18.34

ECOG (performance status)	AS (n=126)	RT (n=339)	RP (n=332)	FT (n=69)
0	109 (86.5%)	271 (79.9%)	316 (91.2%)	68 (98.6%)
1	13 (10.3%)	63 (18.6%)	16 (4.8%)	1 (1.4%)
2	3 (2.4%)	5 (1.5%)	0 (0.0%)	0 (0.0%)
3	1 (0.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

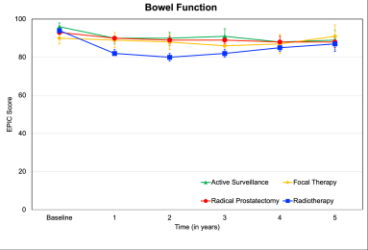
Pretreatment PSA (ng/mL)	AS (n=126)	RT (n=339)	RP (n=332)	FT (n=69)
	7.58 ± 3.65	26.29 ± 46.85	14.32 ± 15.63	8.66 ± 3.89

Urinary irritative



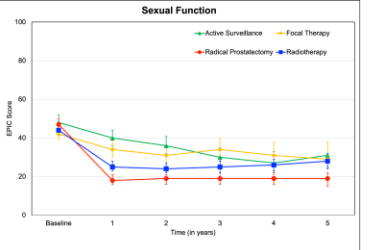
FT, RP and RT resembled AS throughout follow-up

Bowel function



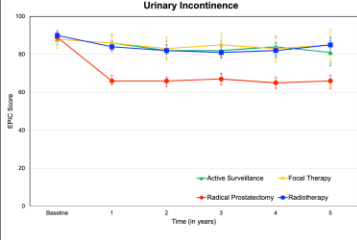
RT showed early decline, peaking at the 2nd year with gradual recovery

Sexual function



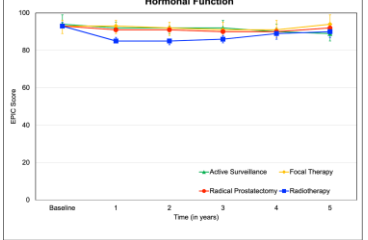
- RP - most severe decline at 1 year, remaining notable till the 5th year
- RT - initial decline with long-term recovery
- FT - the most favourable preservation

Urinary incontinence



RP showed worst outcome at 1 year with sustained deficits through 5 years

Hormonal function



RT showed decline in the first 3 years, the effect gradually diminished by year 5

Conclusion

1. FT demonstrates superior preservation across all domains among curative treatments - as a function-preserving option for localised prostate cancer
2. RP is associated with the greatest decline in urinary continence and sexual function
3. RT impacts on bowel dysfunction is reversible over time
4. Transient hormonal function decline in RT patients - Reversible hormonal effects of adjuvant ADT on RT with lasting oncological benefits