

This is a repository copy of Acute and late adverse events associated with radical radiation therapy prostate cancer treatment: A systematic review of clinician and patient toxicity reporting in randomized controlled trials.

White Rose Research Online URL for this paper: http://eprints.whiterose.ac.uk/108747/

Version: Supplemental Material

## Article:

Holch, P, Henry, A orcid.org/0000-0002-5379-6618, Davidson, S et al. (7 more authors) (2017) Acute and late adverse events associated with radical radiation therapy prostate cancer treatment: A systematic review of clinician and patient toxicity reporting in randomized controlled trials. International Journal of Radiation Oncology\*Biology\*Physics, 97 (3). pp. 495-510. ISSN 0360-3016

https://doi.org/10.1016/j.ijrobp.2016.11.008

© 2016 Elsevier Inc. Licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International http://creativecommons.org/licenses/by-nc-nd/4.0/

## Reuse

Unless indicated otherwise, fulltext items are protected by copyright with all rights reserved. The copyright exception in section 29 of the Copyright, Designs and Patents Act 1988 allows the making of a single copy solely for the purpose of non-commercial research or private study within the limits of fair dealing. The publisher or other rights-holder may allow further reproduction and re-use of this version - refer to the White Rose Research Online record for this item. Where records identify the publisher as the copyright holder, users can verify any specific terms of use on the publisher's website.

## Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk https://eprints.whiterose.ac.uk/ Table 4: Incidence and prevalence of acute clinician reported toxicity in RCTs (emboldened text indicates studies where a significant difference in primary outcome was demonstrated).

	icity & how reported	% of toxicity		Treatment type
ACUTE EFFEC	CTS-clinician reported			
Genitourinary	symptoms			
Detail not specified				
Grade 1		37%(70.2Gy); 29% (79.2Gy)	[72]	Conventional 3D conformal RT
Grade 2	RTOG	54%(70.2Gy); 60% (79.2Gy)		
$\geq$ Grade 2	_	40%	[49]	Conventional 3D conformal RT & 9mth prior TAD
		47%		Hypofractionated 3D conformal RT & 9 mth prior TAD
	CTCAE V 2.0 & RTOG	15.1	[64]	Conventional 3D conformal RT
		9.7%		CIMRT
Grade 3 RTOG		0%(70.2Gy); 1% (79.2Gy)	[72]	Conventional 3D conformal RT
		2%	[63]	-
		2%		Conventional 3D conformal RT with HT
Bladder				
≤ Grade 2 Recorded at 18 weeks	RTOG	7.0% (74Gy) 7.6% (60Gy) 7.0% (57Gy)	[58]	CIMRT 3-6 mth AS before and during RT HIMRT
Retention		7.0 % (STGy)		
Catheterised		7.9% (day 0 MXM)) 6.2% (7 days prior MXM)	[55]	EBRT with BT & meloxicam
Prostate Oedema				
	io of MRI-determined 1 month to baseline e volume	1.01% (day 0 MXM 1.05% (MXM)7 days before)	[55]	EBRT with BT & meloxicam
Dysurea				
Measured as change from baseline at 1mth	IPSS	<b>1 mth:</b> 8.4% day 0 (MXM); 8.8% (MXM 7 days before)	[55]	EBRT with BT & meloxicam
and 3mth		<b>3mth</b> 7.9% (day 0 MXM) 6.2% (MXM 7 days before)		

Type of Toxicity & how reported		% of toxicity			Treatment type	
Gastrointestin	nal symptoms					
Detail not specified						
Grade 1		39%(70.2Gy); 26% (79.2Gy)	[72]			
Grade 2	DTOO	44%(70.2Gy); 60% (79.2Gy)		Convention	al 3D conformal RT	
	RTOG	21%	[49]			
		35%		Hypofractionated 3D conformal RT		
	CTCAE V 2.0	15.1%	[64]	Conventional 3D conformal RT		
	RTOG	9.7%		CIMRT		
	NCI-CTC V3.0 RTOG	10%	[60]	3D Conform	nal RT with HT & EMP	
≤ Grade 2	RTOG	2.3% (74Gy)	[58]	CIMRT	Short-course androgen	
Recorded at 18 weeks		2.3% (57Gy); 0.8% (60Gy)		HIMRT	suppression for 3–6 months before & during RT	
Grade 3		1% ≥3 J	[63]	Conventional 3D conformal RT		
	RTOG	1% ≥3 J		Convention	al 3D conformal RT with HT	
		3%(70.2Gy); 2% (79.2Gy)	[72]	Convention	al 3D conformal RT	
Hepatic toxicity	·		·			
Grade 1	RTOG	1%	[63]	Convention	al 3D conformal RT	
		20%				
Grade 2		5%				
Grade 3		5%		Convention	al 3D conformal RT with HT	
Grade 4		1 %				

Key: 3D-Three dimensional; EMP-estramustine phosphate;BT- Brachytherapy; HT-Hormone therapy; CIMRT- Conventional intensity modulated radiotherapy; HIMRT- Hypofractionated intensity modulated radiotherapy; MXM-Meloxicam; TAD-Total androgen deprivation; TRUS (transrectal ultrasound); AS-Androgen Supression; Mth=Month; Yr =year; NCI-CTC-National Cancer Institute Common Toxicity Criteria; Radiation Therapy Oncology group –RTOG; IPSS-International prostate symptom score; MRI-magnetic resonance imaging; ≥ greater than and equal to; ≤- less than or equal to; Mth-Month; Yr-Year. NB table only includes papers reporting figures for incidence, prevalence and proportion of toxicity. 

 Table 5: Incidence and prevalence of late clinician reported toxicity in RCTs (emboldened text indicates studies where a significant difference in primary outcome was demonstrated).

Type of Toxicity, how &when reported		% of toxicity	% of toxicity			
	CTS-clinician reporte	d				
	ry symptoms					
Not specified						
Grade 1	10yrs	42%(70.2Gy) ; 45% (79.2Gy)	[72]	Conventional 3D conformal RT		
		22%(70.2Gy) ; 27 %(79.2Gy)				
Grade 1-2	3 yrs	42%	[69]	HT		
	NČI-CTC v3.0	43%		Conventional 3D conformal RT with HT		
Grade 2	7yrs	16 % (4mth HT) 17 % (8mth HT)	[56]	Conventional 3D conformal RT with HT		
≥ Grade 2	3yrs	11 %	[49]	Conventional 3D conformal RT		
	LENT-SOMA	16 %	[]	Hypofractionated 3D conformal RT		
	5 yrs prevalence	14.6%	[67]	CIMRT		
	RTOG	15.3%		HIMRT		
	7yrs	16% (4mth HT) (7yrs)	[56]	Conventional 3D conformal RT with HT		
	Cumulative Incidence RTOG	17% (8mth HT)(7yrs)	[00]			
Grade 3	10 yrs	2%(70.2Gy); 2% (79.2Gy)	[72]	Conventional 3D conformal RT		
	3 yrs	2%	[69]	HT		
	NCI-CTC v3.0	2%		Conventional 3D conformal RT with HT		
≥Grade 3	2yrs	6 %	[63]			
	5yrs	9 %	[62]	Conventional 3D conformal RT		
	7yrs	4 %	[02]			
	2yrs	8 %	[63]			
	5yrs	0 %	[62]	Conventional 3D conformal RT with HT		
	7yrs	2 %				
Urinary toxicity						
Grade 1	Cumulative rate at 5	18.9 % (70Gy); 20.9% (80Gy)	[53]	Conventional 3D conformal RT		
	years	22 % (70Gy); 25% (80Gy)				
Grade 2	RTOG	7.1 % (70Gy); 15.6% (80Gy)				

	LENT-SOMA	13.7 %(	70Gy); 20.9% (80Gy)		
	2yrs	74 %		[60]	Conventional 3D conformal RT with HT
		90 %			Conventional 3D Conformal RT with HT & EMP
≥Grade 2	5yrs RTOG	10 % (7	0Gy); 17.5% (80Gy)	[53]	Conventional 3D conformal RT
	5 yrs	14.6%		[67]	CIMRT
	RTOG	15.3			HIMRT
Grade 3	2yrs	26%		[60]	3D conformal RT with HT
	-	10%			3D Conformal RT with HT & EMP
*1 patient had grade 4 toxicity (RTOG)	Cumulative rate at 5 years RTOG LENT-SOMA		0Gy); 1.9% (80Gy)* 0Gy); 5.4% (80Gy)	[53]	Conventional 3D conformal RT
Grade 4	LENT-SOMA	0.4% (7	0Gy); 0.6% (80Gy)		
Decreased stre					
Grade1	ENT-SOMA% change in	5%	64 & 74Gy	[51]	Conventional 3D conformal RT with HT
Grade 2	score from baseline (93) to 5yrs	1%			
Incontinence					
Grade 1	ENT-SOMA% change in	6%	64 & 74Gy	[51]	Conventional 3D conformal RT with HT
Grade2	score from baseline (93) to 5yrs	1%			
Urinary frequer		_	_		
Grade 1	ENT-SOMA% change in	10%	64 & 74Gy	[51]	Conventional 3D conformal RT with HT
Grade2	score from baseline (85) to 5yrs	4%			
Nocturnal frequ					
Grade 1	MH change in score from	12%	64 & 74Gy	[51]	Conventional 3D conformal RT with HT
Grade2	baseline (88) to 5yrs	2%			
Grade 3		1%			
Cystitis					
≥ Grade 2	5 yrs RTOG	15% (70	)Gy); 19% (80Gy)	[53]	Conventional 3D conformal RT
Haematurea		-			
Grade 1	LENT-SOMA% change in score from baseline to 5yrs	2%	64 & 74Gy	[51]	Conventional 3D conformal RT with HT
≥ Grade 2	5 yrs RTOG	10% (7	0Gy); 14% (80Gy)	[53]	Conventional 3D conformal RT
Urinary obstruc	tion	1			
≥ Grade 2	5 yrs RTOG	69/ /70/	Gy); 9% (80Gy)	[53]	Conventional 3D conformal RT

Bladder							
Grade 1	RMH	ence at 2 yrs	43.9 (74Gy) 20.4 (74Gy)	[58]	CIMRT		
	LENT-S	Soma	28.3% (60Gy) ; 35.0%(57Gy) 18.2% (60Gy) ; 19.7%(57Gy)		HIMRT	3-6 mth AS before and during RT	
≥Grade 2			10.8%(74Gy) 15.3% (74Gy)		CIMRT		
			6.5% (60Gy); 6.3% (57Gy) 12.3% (60Gy);12.0% (57Gy)		HIMRT		
Grade 3			4.4%(74Gy)		CIMRT		
• • • •			5.8% (60Gy);3.5% (57Gy)		HIMRT		
Gastrointe		nptoms					
Not specified			-		-		
Grade 1	RMH	valence	28.9% (74Gy) 22.% (74Gy)	[58]	CIMRT	3-6 mth AS before and during RT	
	LENT-S	SOMA	18.1% (60Gy); 20.3% (57Gy) 16.8% (60)Gy; 15.5% (57Gy)				
	10 yrs		35%(70.2Gy); 41% (79.2Gy)	[72]	Conventional 3D conformal RT		
Grade 2			13%(70.2Gy); 24% (79.2Gy)		Conventional 3D conformal RT		
	1yr RTOG 3yrs		12%(4 mth HT) 12% (8 mth HT)	[56]	Conventiona	I 3D conformal RT	
			22%	[64]	[64] Conventional 3D conformal RT		
			15.1%		CIMRT	3-6 mth AS before and during	
≥Grade 2	RŃН	evalence	5.8% (74Gy) 9.4% (74Gy)	[58]	CIMRT	RT	
	LENT-S	Soma	2.9% (60gy); 0.7% ≥2 (57Gy) 5.1% (60gy); 4.2% ≥2 (57Gy)		HIMRT		
		imulative ce RTOG	12% (4mth HT) 17% (8mth HT)	[56]	Conventional	I 3D conformal RT with HT	
Grade 3	2 yrs R	TOG	3%	[63]	Conventiona	I 3D conformal RT	
			3%		Conventional 3D conformal RT with HT		
	2 yr prevalence RMH		1.4% (74Gy)	[58]	CIMRT	3-6 mth AS before and during RT	
	LENT-S	Soma	0.7%(60Gy); 0.7%(57Gy)		HIMRT		
≥Grade 3	5 yrs* 7yrs	Dische scales	9% *	[62]	Conventiona	I 3D conformal RT	
	7 913		4%				
			0% *		Conventional	I 3D conformal RT with HT	
			2%				

Rectal toxicity	V				
Grade 1	Cumulative rate at 5 years		70Gy); 22% (80Gy) (70Gy); 15% (80Gy)	[53]	Conventional 3D conformal RT
Grade 2	RTOG LENT-SOMA	12.4%	(70Gy); 13.7% (80Gy) (70Gy); 20.2% (80Gy)		
$\geq$ Grade 2	3yrs LENT-SOMA	11% 14%		[49]	Conventional 3D conformal RT Conventional 3D conformal RT with HT
	5yrs RTOG	14% (	70Gy); 19.5% (80Gy)	[53]	Conventional 3D conformal RT
Grade 3	Cumulative rate at 5 years		(70Gy); 5.9% (80Gy)		
	RTOG LENT-SOMA	1.9%	(70Gy); 6.5% (80Gy)		
Diarrhoea/sto			1		
Grade 1	LENT-SOMA% Change form Baseline (89) at 5 yrs	10%	64 & 74Gy	[51]	Conventional 3D conformal RT with HT
Grade 1	Cumulative incidence RTOG, LENT-SOMA 5 yrs		64Gy); 34%(74Gy) 64Gy); 46%(74Gy)	[68]	Conventional 3D conformal RT with HT
Grade 1-2	3 yrs NCI-CTC y 3.0	8%	8%		HT
	NGI-010 V 3.0	13%			Conventional 3D conformal RT with HT
Grade 2	LENT-SOMA% Change form Baseline (89) at 5 yrs	2%	64 & 74Gy	[51]	Conventional 3D conformal RT with HT
Grade 2	5 yrs Cumulative incidence RTOG		64Gy); 15%(74Gy) 4Gy); 12%(74Gy)	[68]	Conventional 3D conformal RT with HT
Grade 3	RMH LENT-SOMA		4Gy); 4%(74Gy) 4Gy); 2%(74Gy)		
≥Grade 3	3 yrs NCI-CTC v3.0	< 1%		[69]	Conventional 3D conformal RT Conventional 3D conformal RT with HT
Bowel frequency					
Mild	5 yrs	9% (6	4Gy); 14%(74Gy)		
Moderate	Cumulative incidence		4Gy); 6%(74Gy)		Conventional 3D conformal RT with HT
Stool	RMH				
frequency	LENT-SOMA			[68]	
≥ Grade 1			64Gy); 46% (74Gy)		
≥ Grade 2		6% (6	4Gy); 12% (74Gy)		

≥ Grade 3		0% (640	Gy); 2% (74Gy)		
Rectal		•			
bleeding					
Mild			4gy); 53 %(74Gy)		
Moderate			lGy);21% (74Gy)		
Severe			lGy);1% (74Gy)		
≥ Grade 2			lGy); 32%( 74Gy)		
≥ Grade 3			Gy); 10%( 74Gy)		
≥ Grade 4			Gy); 1%( 74Gy)		
Grade 1	RTOG % Change form Baseline (82) at 5 yrs	16%	64 & 74Gy	[51]	Conventional 3D conformal RT with HT
Grade 1-2	3 yrs	5%		[69]	HT
	NCI-CTC v3.0	12%			Conventional 3D conformal RT with HT
Grade 2	RTOG % Change form Baseline (82) at 5 yrs	3%	64 & 74Gy	[51]	Conventional 3D conformal RT with HT
≥Grade 2	5yrs RTOG	19% (70Gy) 28% (80Gy)		[53]	Conventional 3D conformal RT
Grade 3	3 yrs	1%		[69]	Conventional 3D conformal RT
	NĆI-CTC v 3.0	< 1%			Conventional 3D conformal RT with HT
≥Grade 3	5 yrs Cumulative incidence	3% (64Gy); 10%(74Gy)		[68]	Conventional 3D conformal RT with HT
≥Grade 4	LENT-SOMA	1% (64	łGy); 1%(74Gy)		
Sphincter con	trol			1	
Grade 1	LENT-SOMA% Change form Baseline	2%	64 & 74Gy	[51]	Conventional 3D conformal RT with HT
Grade 2	(95) at 5 yrs	1%			
Proctitis				•	
Grade 1	5yrs cumulative	42% (64	lGy);50 %(74Gy)	[68]	Conventional 3D conformal RT with HT
Grade 2	incidence		4Gy);25% (74Gy)		
	RTOG	7% (700	Gy); 8% (80Gys)		
Grade 3			Gy);7%(74Gy)		
Rectal pain				I	<u>н</u>
Grade 2	5yrs cumulative	5% (640	Gy);8%(74Gy)	[68]	Conventional 3D conformal RT with HT
Grade 3	incidence RTOG	-	Gy);2%(74Gy)		
Anorexia	•	·			

Grade 1	2 years	11%	[60]	Conventiona	I 3D conformal RT with HT		
	,	25%		3D Conform	3D Conformal RT with HT & EMP		
Grade 2		5%					
Nausea							
Grade 1	0	450/	[00]	Conventions	I 3D Conformal BT with HT & EMP		
	2 years	15%	[60]	Conventiona	I 3D Conformal RT with HT & EMP		
Grade 2		5%					
Erectile dysf				-			
Grade 1	2 yr prevalence	74Gy 95.0%	[58]	CIMRT	3-6 mth AS before and during		
	LENT-SOMA	60Gy 94% ; 57Gy 90.5%		HIMRT	RT		
	7 yrs	18%(4mth); 21%(8mth)	[57]	3D Conforma	al RT with HT		
Grade 2	2 yr prevalence	91% (74Gy)	[58]	CIMBT	3-6 mth AS before and during		
	LENT-SOMA	90.9% (60 Gy); 89.3% (57Gy)	[00]	HIMBT	BT		
	7 yrs	5%(4mth); 3%(8mth)	[57]		al RT with HT		
Grade 3	2 yr prevalence	80% (74Gy	[57]	CIMRT	3-6 mth AS before and during		
	LÉNT-SOMA	79.8% (60Gy) ; 81.8% (57Gy)		HIMRT	RT		
	7 yrs	10%(4mth) ; 17%(8mth)	[57]	3D Conforma	al RT with HT		
Grade 4	2 yr prevalence	64.6% (74Gy)	[58]	CIMRT	3-6 mth AS before and during		
	LÉNT-SOMA	70.1 (60Gy); 64.6 (57Gy)		HIMRT RT			
	7 yrs	47%(4mth); 42%(8mth)	[57]	3D Conforma	al RT with HT		
Cardiac effect	ots						
Grade 1	2 yrs	1%	[63]	Conventiona	l 3D conformal RT		
Gynaecomas	stia						
Grade 1		45%		3D Conforma	al RT with HT & EMP		
Anaemia	2yrs		[60]				
Grade 1	NCI-CTC	65%	· ·	3D Conforma	al RT with HT & EMP		
	V 3.0 RTOG	74%		3D Conforma	al RT with HT		
Grade 2		10%		3D Conforma	al RT with HT & EMP		
		26%		3D Conforma	al RT with HT		

Key: Three dimensional-3D; EMP-estramustine phosphate;BT- Brachytherapy; HT-Hormone therapy; CIMRT- Conventional intensity modulated radiotherapy; TAD-Total androgen deprivation; AS-Androgen suppression; NCI-CTC- Canadian National Cancer Institute Common Toxicity Criteria; RTOG- Radiation Therapy Oncology Group; LENT-SOMA -Late Effect in Normal Tissue-Subjective Objective Management Analytic – Scales; RMH-Royal Marsden Hospital Scale; Mth=Month; Yr =year, ≥ greater than and equal to; ≤- less than or equal to. NB table only includes papers reporting figures of incidence, prevalence and proportion of toxicity.

Table 6: Incidence of late patient reported toxicity and Quality of life (QOL) scores in RCTs (emboldened text indicates studies where a significant difference in primary outcome was demonstrated).

Type of Toxicity or C report	% of toxicity or QOL score					Treatment type	
LATE EFFECTS-patient	reported						
Genitourinary symptom	IS						
Mean score change form baseline	FACT-P	-6.1* -5.2				[69]	HT
↑ score =↑ QOL * 6mth		0.1 * -5.5					Conventional 3D conformal RT with HT
3yrs		-1.4* -0.6					HT
		0.1*				-	Conventional 3D conformal RT with HT
Increase from 13 at baseline	QLQC-30 PR25	Mean sc	ore 17	70 & 80	Gy	[53]	Conventional 3D conformal RT
Gastrointestinal sympto	oms						
Bowel problems	-	1				-	F
Composite bowel score: 0 (min dysfunction) to 100 (max dysfunction)	7 yr MGH	7.3 (70.2 Gy); 9.1 (79.2)				[65]	Conventional 3D conformal RT
Mean score change form baseline	EORTC	-1.3* -0.3				[69]	нт
* 6mth 3yrs		3.4* 1.7					Conventional 3D conformal RT & HT
Faecal/rectal urgency							
Grade 1	UCLA-PCI	7%				[51] *	Conventional 3D conformal RT with HT
Grade 2	% change in score from	5 %	64 & 74	4Gy			
Grade 3	baseline (84) to 5yrs	3%				1	
Grade 4		2%					
Mild	UCLA-PCI	57%	64Gy	61%	74Gy	[68]	Conventional 3D conformal RT with HT
Moderate	Cumulative	32%		34%		1	
Severe	incidence at 5yrs	11%	19%				
Bowel distress							
Mild	UCLA-PCI	68%	64Gy	61%	74Gy	[68]	Conventional 3D conformal RT with HT
Moderate	Cumulative	29%		32%			
Severe	incidence at 5yrs	4%		5%			

Bowel problems							
Mild	UCLA-PCI	46%	64Gy	46%	74Gy	[68]	Conventional 3D conformal RT with HT
Moderate	Cumulative	26%	• · • · •	29%		[00]	
Severe	incidence at 5yrs	6%		8%			
Trouble moving bowels	,		1				
Mild	FACT-P	57%	64Gy	56%	74Gy	[68]	Conventional 3D conformal RT with HT
Moderate	Cumulative	12%	1	17%	-		
Severe	incidence at 5yrs	5%		9%			
Loose stools			<u>.</u>			-	
Grade 1	UCLA-PCI	24%	64 & 74	1Gy		[51]	Conventional 3D conformal RT
Grade 2	% change in score from baseline (70) to 5 yrs	6 %		-			
Grade 3		1%					
Bowel disorders							
Point increase from baseline	QLQC-30 PR25	Mean score 8	70 & 80	)Gy		[53]	Conventional 3D conformal RT
Treatment related symptoms	;						
Increase from 5 at baseline	QLQC-30 PR25	8 score	70 & 80	)Gy		[53]	Conventional 3D conformal RT
Quality of life							
Global QOI score						1	
Mean score change form	FACT-P	4.3*				[69]	HT
baseline		2.5				_	
↑ score = ↑ symptoms		-3.0*					Conventional 3D conformal RT with HT
* 6mth		-1.1				-	
3yrs	EORTC-PR13	-1.74* -9.4					НТ
		8.98* -11.4					Conventional 3D conformal RT with HT
QOL subscales		1117				1	
Physical Health Summary	SF-36 (summary	68Gy	78Gy				
,	scores)	75.4*	75.5*				Conventional 3D conformal RT
	*6 mths	73.2	71.8			[46]	
Mental health Summary	3 yrs	78.1*	77.6*			4	
Montal Hoalth Gunnary		76.7	76.1			4	
Physical functioning	-1	79.0*	76.0*			-	
		81.1	75.0			1	
Role -physical	-	68.4*	71.9*			1	
		69.1	66.4			1	
		67.2*	61.1*			-	

Patients reporting a degree of sexual functioning 5yrs		38 70Gy & 80Gy		
decrease from baseline 5yrs			[33]	
Sexual functioning point	QLQC-30 PR25	↓19 points 70Gy & 80Gy	[53]	Conventional 3D conformal RT & HT
have an erection	SAU	31%	[63]	Conventional 3D conformal RT & HT
Erectile dysfunction Always/almost always able to	SAQ	21%	[62]	Conventional 3D conformal RT
Fractile dysfunction		71.0		
		71.0*		
	FACT-P TOI	83.1		
No toxicity	FAUT-P	110.1*		
*Grade 3≥ GU toxicity	FACT -P	81.7 <sup>*</sup> 124.6		
Mean score	FAUT- G	89.7 81.7*		
	FACT- G	76.3* 89.7		
	FACT-P TOI	85.4		
	1yr	116.4*		
No toxicity	FACT-P	127.4		
*Grade 2≥ GU toxicity	10yrs	85.5*		Conventional 3D conformal RT
Mean score	FACT G	91.0	[62]	EBRT & EBRT with HTR Brachytherapy
	FACTO	-10.2	[00]	
		-3.8		Conventional 3D conformal RT with HT
- / -		-9.2		
* 6mth 3yrs	EORTC-PR13	-3.5*		HT
$\uparrow$ score = $\uparrow$ symptoms		-5.5		
baseline		-7.6*- -5.5		Conventional 3D conformal RT with HT
Mean score change from		-6.1		
	FACT-P	-4.1*	[69]	HT
Physical function				
		79.0 76.9		
Mental health		79.0* 75.9*		
		80.0 80.1		
Role-emotional		80.3* 79.8*		
3		84.0 83.0		
Social functioning		68.5* 85.3*		
Vitanty		68.2 64.7		
Vitality	1	65.2 62.4 68.2* 67.5*		

Key: 3D-Three dimensional; EMP-estramustine phosphate;BT- Brachytherapy; HT-Hormone therapy; CIMRT- Conventional intensity modulated radiotherapy; HIMRT-Hypofractionated intensity modulated radiotherapy; MXM-Meloxicam; TAD-Total androgen deprivation; AS-Androgen suppression; UCLA-PCI-University of California, Los Angeles, Prostate Cancer Index; EORTC QLQ-C30-European Organisation for Research and Treatment of Cancer-30 (30 questions) -PR13-prostate-specific module (13 questions); FACT-G –Functional Assessment of Cancer Therapy (General); FACT-P- Functional Assessment of Cancer Therapy (Prostate); TOI-Trial Outcome Index; SAQ- Sexual adjustment questionnaire; SF-36- Short Form (36) Health Survey (SF-36); MGH- Massachusetts General Hospital –MGH; Mth=Month; Yr =year; ≥ greater than and equal to; ≤- less than or equal to. NB table only includes papers reporting figures for incidence, prevalence and proportion of toxicity & mean PRO scores.