

Title	The burden of healthcare costs associated with prostate cancer in Ireland
Authors	Burns, Richéal M.;Leal, Jose;Wolstenholme, Jane;O'Neill, Ciaran;Sullivan, Frank J.;Drummond, Frances J.;Sharp, Linda
Publication date	2017-01
Original Citation	Burns, R. M., Leal, J., Wolstenholme, J., O' Neill, C., Sullivan, F. J., Drummond, F. J., Sharp, L. (2017) 'The burden of healthcare costs associated with prostate cancer in Ireland'. Global & Regional Health Technology Assessment, 4 (1):28-33. DOI: 10.5301/grhta.5000249
Type of publication	Article (peer-reviewed)
Link to publisher's version	http://www.grhta.com/article/d2c3cb15-cc4b-43af-b15b-aba4baf7821d - 10.5301/grhta.5000249
Rights	©2016 The Authors. This article is published by Wichtig Publishing and licensed under Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International (CC-BY-NC-ND). Any commercial use is not permitted and is subject to Publisher's permissions. Full information is available at www.wichtig.com - https://creativecommons.org/licenses/by-nc-nd/4.0/
Download date	2024-04-26 01:41:19
Item downloaded from	https://hdl.handle.net/10468/5539

Supplementary Table I: Unit and Total Costs for the PCa patient pathways

	Unit Cost (2010 €)	SOURCE
DETECTION AND DIAGNOSIS		
PSA-BASED DETECTION		
GP visit with PSA test and counselling	€ 48.51	Drummond et al 2015
PSA test	€ 7.22	Drummond et al 2013
TOTAL COST OF A PSA-BASED SCREEN	€ 55.73	
POSITIVE PSA TEST- CONFIRMATORY BIOPSY		
Outpatient consultation - first consultation	€ 139.00	HSE Casemix (2012)
TRUS guided biopsy	€ 272.00	HSE Casemix (2012)
Biopsy complications - hospitalisation	€ 1,503.00	HSE Casemix (2012)
Risk of biopsy complications	1.4%	Hummel et al (2013)
TOTAL COST OF BIOPSY- POST PSA	€ 432.04	
POSITIVE BIOPSY- DISEASE STAGING		
Outpatient consultation - 2nd consultation	€ 139.00	HSE Casemix (2012)
Diagnostic tests (blood and urine)	€ 64.78	Leal 2010
Imaging (MRI scan)	€ 232.60	UCHG Micro-costing study (unpublished)
Number of MRI scans	30%	NCRI Patient level survey data (unpublished)
Bone scan	€ 114.61	UCHG Micro-costing study (unpublished)
Number of bone scans	30%	NCRI Patient level survey data (unpublished)
Repeat biopsy	€ 272.00	HSE Casemix (2012)
Proportion of repeat biopsies per patient	25%	NCRI Patient level survey data (unpublished)
TOTAL COST OF POSITIVE BIOPSY (STAGING)	€ 375.94	
TREATMENT		
ACTIVE MONITORING (AS/WW)		
GP Visit (4 annually)	€ 194.04	Drummond et al 2015
Outpatient consultation (1 annually)	€ 139.00	HSE Casemix (2012)
PSA test (4 annually)	€ 28.88	Drummond et al 2013
Biopsy (1 annually)	€ 272.00	HSE Casemix (2012)
Biopsy complications - hospitalisation	€ 1,503.00	HSE Casemix (2012)
Risk of biopsy complications	1.4%	Hummel et al 2013
ANNUAL COST OF ACTIVE MONITORING	€ 654.96	
RADICAL PROSTATECTOMY		
Radical prostatectomy	€ 6,398.96	HSE Casemix (2012)
Urology Outpatient Appointment (initial)	€ 139.00	HSE Casemix (2012)
Urology Outpatient Appointment (follow up) (2 annually)	€ 278.00	HSE Casemix (2012)
Diagnostic tests (blood and urine) (2 annually)	€ 129.56	Leal 2010
Imaging (MRI scan)	€ 232.60	UCHG Micro-costing study (unpublished)
GP Visit (3 annually)	€ 145.53	Drummond et al 2015

COST OF RADICAL PROSTATECTOMY- YEAR 1	€ 7,323.65	
YEAR 2 & 3 CARE POST- RP		
Urology Outpatient Appointment (follow up) (2 annually)	€ 278.00	HSE Casemix (2012)
Diagnostic tests (blood and urine) (2 annually)	€ 129.56	Leal 2010
GP Visit (2 annually)	€ 97.02	Drummond et al 2015
COST OF RADICAL PROSTATECTOMY- YEAR 2/3	€ 504.58	
YEAR 4 CARE POST- RP		
Urology Outpatient Appointment (follow up) (1 annually)	€ 139.00	HSE Casemix (2012)
Diagnostic tests (blood and urine) (1 annually)	€ 64.78	Leal 2010
GP Visit (1 annually)	€ 48.51	Drummond et al 2015
COST OF RADICAL PROSTATECTOMY- YEAR 4	€ 252.29	
RADIOTHERAPY (IMRT)		
Radiotherapy	€ 5,057.93	UCHG Micro-costing study (unpublished)
Oncology Outpatient Appointment (initial)	€ 139.00	HSE Casemix (2012)
Oncology Outpatient Appointment (follow up) (3 annually)	€ 417.00	HSE Casemix (2012)
Diagnostic tests (blood and urine) (2 annually)	€ 129.56	Leal 2010
Imaging (MRI scan)	€ 232.60	UCHG Micro-costing study (unpublished)
GP Visit (3 annually)	€ 145.53	Drummond et al 2015
COST OF RADIOTHERAPY- YEAR 1	€ 6,121.62	
RADIOTHERAPY (BRACHYTHERAPY)		
Brachytherapy	€ 4073.92	UCHG Micro-costing study (unpublished)
Oncology Outpatient Appointment (follow up) (3 annually)	€ 417.00	HSE Casemix (2012)
Diagnostic tests (blood and urine) (2 annually)	€ 129.56	Leal 2010
Imaging (MRI scan)	€ 232.60	UCHG Micro-costing study (unpublished)
GP Visit (3 annually)	€ 145.53	Drummond et al 2015
COST OF BRACHYTHERAPY- YEAR 1	€ 4,998.61	
YEAR 2 & 3 CARE POST- RT/ BRACHY		
Urology Outpatient Appointment (follow up) (2 annually)	€ 278.00	HSE Casemix (2012)
Diagnostic tests (blood and urine) (2 annually)	€ 129.56	Leal 2010
GP Visit (2 annually)	€ 97.02	Drummond et al 2015
COST OF RADIOTHERAPY/ BRACHY YEAR 2/3	€ 504.58	
YEAR 4 CARE POST- RT/ BRACHY		
Urology Outpatient Appointment (follow up) (1 annually)	€ 139.00	HSE Casemix (2012)
Diagnostic tests (blood and urine) (1 annually)	€ 64.78	Leal 2010
GP Visit (1 annually)	€ 48.51	Drummond et al 2015
COST OF RADIOTHERAPY/ BRACHY	€ 252.29	

YEAR 4		
SURGERY- TRANSURETHRAL RESECTION OF THE PROSTATE		
Surgery- TURP	€ 4,868.00	HSE Casemix (2012)
GP Visit (2 annually)	€ 97.02	Drummond et al 2015
Bicalutamide 50 mg 3 days before and for 3 weeks	€ 103.95	HSE Community Pharmacist-personal communication
Urology Outpatient Appointment (2 annually)	€ 278.00	HSE Casemix (2012)
Diagnostic tests (blood and urine) (2 annually)	€ 129.56	Leal 2010
Imaging (MRI scan)	€ 232.60	UCHG Micro-costing study (unpublished)
COST OF TURP	€ 5,709.13	
HORMONE TREATMENT – YEAR 1		
Bicalutamide 50 mg 3 days before and for 3 weeks	€ 103.95	HSE Community Pharmacist-personal communication
Goserelin 3.6mg every 28 days	€ 1,914.00	HSE Community Pharmacist-personal communication
Goserelin implant 10.8mg every 12 weeks	€ 1,727.56	HSE Community Pharmacist-personal communication
Oncology Outpatient Appointment (initial)	€ 139.00	HSE Casemix (2012)
Oncology Outpatient Appointment (follow up) (2 annually)	€ 278.00	HSE Casemix (2012)
Diagnostic tests (blood and urine) (2 annually)	€ 129.56	Leal 2010
Imaging (MRI scan)	€ 232.60	UCHG Micro-costing study (unpublished)
GP Visit (3 annually)	€ 145.53	Drummond et al 2015
COST OF HORMONE TREATMENT- YEAR 1	€ 4,670.20	
HORMONE TREATMENT – YEAR 2-4		
Medication (3.6mg) [Goserelin]	€ 1,914.00	HSE Community Pharmacist-personal communication
Medication (10.8mg) [Goserelin]	€ 1,727.56	HSE Community Pharmacist-personal communication
Oncology Outpatient Appointment (follow up) (2 annually)	€ 278.00	HSE Casemix (2012)
Diagnostic tests (blood and urine) (2 annually)	€ 129.56	Leal 2010
GP Visit (2 annually)	€ 97.02	Drummond et al 2015
COST OF HORMONE TREATMENT- YEAR 2-4	€ 4,146.14	
CHEMOTHERAPY		
Docetaxel + prednisolone (3-weekly)	€ 11,277.82	Collins et al 2007
COST OF CHEMOTHERAPY - ANNUAL	€ 11,277.82	
PALLIATIVE/ TERMINAL CARE		
COST OF PALLIATIVE TERMINAL CARE IN PROSTATE CANCER	€ 6,958.17	Bourke et al 2014
TREATMENT COMPLICATIONS		
RP -COMPLICATIONS IN THE 1ST YEAR		
Requiring medical treatment	2.6%	British Association of Urological Surgeons (BAUS)- Report 2010
Requiring surgical treatment	1.0%	BAUS Report 2010

Cost medical treatment	€ 5,796.67	Collins et al 2007
Cost surgical treatment	€ 6,398.96	HSE Casemix (2012)
COST OF RP COMPLICATIONS- SHORT TERM	€ 212.99	
RP - COMPLICATIONS AFTER THE 1ST YEAR		
Urethral Stricture - short operation (excision)	3.4%	Leal 2010
Cost of excision	€ 3,765.00	HSE Casemix (2012)
Incontinence	13%	Leal 2010
Incontinence - pelvic floor muscle treatment	€ 315.61	Leal 2010
Impotence/ erectile dysfunction	45%	Leal 2010
Counselling (6 sessions)	€ 0.00	Offered free by charities
Drug - Sildenafil -25mg once a week - annual	€ 120.84	HSE PCRS Database
COST OF RP COMPLICATIONS- LONG TERM	€ 222.83	
TOTAL COST OF RP COMPLICATIONS	€ 435.82	
RT -COMPLICATIONS IN THE 1ST YEAR		
Incontinence	30%	Leal 2010
Incontinence - pelvic floor muscle treatment	€ 315.61	Leal 2010
COST OF RT COMPLICATIONS- SHORT TERM	€ 94.68	
RT - COMPLICATIONS AFTER THE 1ST YEAR		
Proctitis	6.6%	Leal 2010
Flexible sigmoidoscopy +colonoscopy, biopsy	€ 823.52	Hummel et al 2010
Laser therapy	€ 1,113.47	Hummel et al 2010
Enemas (2/day for 2weeks)	€ 708.45	Hummel et al 2010
Blood transfusion	€ 157.97	Hummel et al 2010
Incontinence - pelvic floor muscle treatment	13.6%	Leal 2010
pelvic floor muscle exercise treatment	€ 315.61	Leal 2010
Impotence/ erectile dysfunction	40.3%	Leal 2010
Counselling (6 sessions)	€ 0.00	Offered free by charities
Drug - Sildenafil -25mg once a week - 4 pack	€ 120.84	HSE PCRS Database
Urethral Stricture - short operation (TURP)	€ 3,765.00	HSE Casemix (2012)
Stricture Rate	3.4%	Leal 2010
COST OF RT COMPLICATIONS- LONG TERM	€ 404.66	
TOTAL COST OF RT COMPLICATIONS	€ 499.34	
HT -COMPLICATIONS IN THE 1ST YEAR		
Sexual dysfunction	71%	Aronson 1999
Cyproterone acetate 50mg/day - 56-pack (annual)	€ 587.21	HSE PCRS Database
Counselling (6 sessions) (free in Ireland)	€ 0.00	
Hot flashes	40%	Aronson 1999
DES 1mg/day for 2 weeks - 28 pack	€ 67.79	HSE PCRS Database
COST OF HT COMPLICATIONS- SHORT TERM	€ 444.69	
HT -COMPLICATIONS AFTER THE 1ST YEAR		

Fracture risk	22%	Taylor 2009
Fracture	€ 15,037.00	HSE Casemix 2012
CVD risk	4%	Aronson 1999
Acute or suspected non elective MI	€ 1,531.00	HSE Casemix (2012)
COST OF HT COMPLICATIONS- LONG TERM	€ 3,343.82	
TOTAL COST OF HT COMPLICATIONS	€ 3,788.51	